



# LEED 2009 for Existing Buildings: Operations & Maintenance

## EA CREDIT 5: ENHANCED REFRIGERANT MANAGEMENT

All fields and uploads are required unless otherwise noted.

### ALL OPTIONS

This static sample form has been modified for offline access. All sections of the form are visible. Sample forms are for reference only.

Select one of the following:

- ☐ LEED Design and Construction Streamlined Path: The project building earned a credit for enhanced refrigerant management under a LEED Design & Construction Rating System.
- ☐ Full Documentation Path: To document compliance with EAc5, the project team will provide refrigerant information all for all mechanical cooling equipment that serves the project building.



### LEED DESIGN AND CONSTRUCTION STREAMLINED PATH

**Upload L-7.** USGBC- or GCBI-generated LEED Certification Scorecard(s) of the previously-certified building/project(s). If the project has been certified more than once, upload all relevant scorecards.

Since the project building earned LEED Design & Construction credit for enhanced refrigerant management (select one):

- ☐ Original Equipment: No additional mechanical cooling equipment (serving the project building) has been installed.
- ☐ Additional Equipment: Additional mechanical cooling equipment (serving the project building) has been installed.

### FULL DOCUMENTATION PATH

Complete the table below for all mechanical cooling mechanical equipment that serving the project building. The information provided below MUST be consistent with the information provided in EA Prerequisite 3

**Table L-3.** Refrigerants

HVAC&R Equipment Type	Manufacturer Name	Model Number	Refrigerant Used

### Table EAc5-1. Refrigerant Impact Calculation

Note: GWPr, ODP<sub>r</sub>, and L<sub>r</sub> values are auto-populated with default values. Non-default values are not permitted. See LEED Reference Guide for Green Building Design and Construction for full table of default values of GWPr and ODP<sub>r</sub>.

HVAC&R Equipment Type	N	Q (tons)	Refrigerant	GWPr	ODP <sub>r</sub>	Rc (lb/ton)	Life (yrs)	Lbs. of Refrigerant Added	Lbs. of Refrigerant in Full Charge	Days Since Refrigerant Last Added	L <sub>r</sub> (%)	Mr (%)	LCG WP	LCO DP x10 <sup>5</sup>	Refrigerant Impact per ton	Refrigerant Impact Total
Total			Average refrigerant impact per ton (must be less than or equal to 100)													

**Upload EAc5-1.** For non-default Life values, upload supporting documentation such as a manufacturers' life guarantee and equivalent long term service contract. For non-default Mr values, upload the following supporting documentation:

1. Manufacturers' test data for refrigerant leakage rates (percent per year)
2. Refrigerant leak detection equipment in the room where the equipment is located
3. Preventive maintenance program for minimizing equipment refrigerant leakage

I have reviewed the information above and it is accurate to the best of my knowledge.

Signatory	
Initial here:	

- ☐ Fire suppression systems in the project building do not use ozone-depleting substances (CFCs, HCFCs or halons).
- ☐ The Refrigerant Leakage Rate (L<sub>r</sub>) values entered in the table above are based on actual leakage rates experienced in the project building. Calculation guidelines can be found in the LEED Reference Guide.

## ADDITIONAL DETAILS

- ☐ Special circumstances preclude documentation of credit compliance with the submittal requirements outlined in this form.

## SPECIAL CIRCUMSTANCES

Describe the circumstances limiting the project team's ability to provide the submittals required in this form. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

**Upload EAc5-SC.** Provide any additional documentation that supports the claim to special circumstances. (Optional)

- ☐ The project team is using an alternative compliance approach in lieu of standard submittal paths.

## ALTERNATIVE COMPLIANCE PATH

Describe the alternative compliance path used by the project team. Include justification that this path meets the credit intent and requirements. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

**Upload EAc5-ACP.** Provide any additional documents that support the alternative compliance path approach. (Optional)

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## SUMMARY

EA Credit 5: Enhanced Refrigerant Management Points Documented: