



LEED 2009 for Core and Shell Development

EA CREDIT 4: 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.

Compliance with the prerequisite/credit requirements must be documented for the entire Core & Shell project building and associated grounds, including tenant occupied spaces, from which anticipated tenant work may also be documented.

- ☐ **In Scope:** The project team does not anticipate any future tenant work that would impact the ability for the Core & Shell project to meet the requirements of this prerequisite and/or credit.
- ☐ **Tenant Sales and/or Lease:** The Core & Shell project scope is limited such that submittal documentation be based (either in whole or in part) on anticipated tenant work beyond the Core & Shell project scope.

Select one of the following:

- ☐ The project does not use refrigerants.
- ☐ Refrigerants and HVAC&R systems minimize or eliminate the emission of compounds that contribute to ozone depletion and global climate change. The base building HVAC&R equipment complies with the maximum threshold described below for the combined contributions to ozone depletion and global warming potentials.

IN SCOPE

Complete the following documentation sections using data for the entire project building, including tenant occupied spaces. Data shall be based entirely on design and construction elements that are included in the Core & Shell project scope. No data entered below shall be based on anticipated tenant work.

TENANT SALES AND/OR LEASE AGREEMENT

The tenant sales and/or lease agreement contains binding language specifying:

- ☐ Zero use of refrigerants OR the minimum performance criteria for refrigerants in all tenant-installed new or existing mechanical cooling equipment, such that spaces within the scope of anticipated tenant work shall comply with the requirements of EA Credit 4 when completed.
- ☐ Zero use of ozone depleting substances in all tenant-installed fire suppression systems, such that spaces within the scope of anticipated tenant work shall comply with the requirements of EA Credit 4 when completed.

Upload L-6. Provide the legally binding document (lease, sales agreement, tenant construction requirements, etc.) associated with the project, signed by both the developer and the tenant, explicitly stating the performance requirements for the tenant work.

Files:

Page/Reference number(s) of language relating to declaration(s) above:

Complete the following documentation section assuming all tenant work has been completed and conforms to the requirements of the sales and/or lease agreements. For required uploads, provide all available documentation pertaining to the Core & Shell project scope and anticipated tenant work.

- ☐ Fire suppression systems in the project building do not use ozone-depleting substances (CFCs, HCFCs or halons).

Table L-2. Refrigerants

HVAC&R Equipment Type	Equipment Location	Refrigerant Used	Manufacturer Name	Model Number	Installation Date

Note: If the project currently contains CFC refrigerants and the project claims a phase-out plan in EA Prerequisite 3, use the Special Circumstances section in EA Credit 4 to upload refrigerant impact Calculations using post-phase-out refrigerant values.

Table. Refrigerant Impact Calculation

Note: GWPr, ODPr, and Lr 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 ODPr.

HVAC&R Equipment Type	N	Q (tons)	Refrigerant	GWPr	ODPr	Rc (lb/ton)	Life (yrs)	Lr (%)	Mr (%)	LCGWP	LCODP x10 ⁵	Impact per ton	Impact Total
Total			Average refrigerant impact per ton (must be less than or equal to 100)										

Total refrigerant impact per ton must be less than or equal to 100 to achieve points for this credit.

Upload EAc4-1. Provide supporting documentation for non-default Mr value(s) in Table. Refrigerant Impact Calculation.

Files:

Upload EAc4-2. Provide supporting documentation for non-default Life value(s) in Table. Refrigerant Impact Calculation such as a manufacturers' life guarantee and equivalent long term service contract.

Files:

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 EAc4-SC. Provide any additional documentation that supports the claim to special circumstances. (Optional)

Files:

- ☐ 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 EAc4-ACP. Provide any additional documents that support the alternative compliance path approach. (Optional)

Files:

SUMMARY

EA Credit 4: Enhanced Refrigerant Management Points Documented: