



# LEED 2009 for Core and Shell Development

## EA PREREQUISITE 3: FUNDAMENTAL 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 Agreement:** 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.

### 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

- ☐ The tenant sales and/or lease agreement contains binding language specifying zero use of CFC-based refrigerants in all tenant-installed new mechanical cooling equipment as well as comprehensive CFC phase-out conversion requirements for all existing mechanical cooling equipment, such that spaces within the scope of anticipated tenant work shall comply with the requirements of EA Prerequisite 3 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(s) for all mechanical cooling equipment that will serve the project building and is not addressed by tenant sales and/or lease agreements. For required uploads, provide all available documentation pertaining to the Core & Shell project scope and all available documentation pertaining to anticipated tenant work. Where no documentation is available, do not upload anything. Specify and support any and all assumptions in the accompanying narrative(s).

**Table L-2. Refrigerants**

HVAC&R Equipment Type	Equipment Location	Refrigerant Used	Manufacturer Name	Model Number	New/Existing

Note: If new HVAC&R equipment is installed which uses CFC based refrigerant the project is ineligible for prerequisite compliance.

## CFC-BASED REFRIGERANTS WITHIN LEED BOUNDARY

Usage of CFC-based refrigerant(s) in equipment within the LEED project boundary has been identified in Table. Refrigerants.

- ☐ A comprehensive CFC phase-out conversion plan is in place for all mechanical cooling equipment within the LEED project boundary.

**Upload EA3-1.** Provide the CFC phase-out conversion plan(s) (or summary) for all mechanical cooling equipment within the LEED project boundary. Highlight language indicating specific equipment using CFC-based refrigerants and expected phase-out dates. Include leakage rates and refrigerant quantities.

Files:

In accordance with the uploaded plan, CFC phase-out in equipment serving the LEED project only will be completed:

- ☐ Before project completion.
- ☐ After project completion.

## CFC PHASE-OUT AFTER COMPLETION

Describe (in detail) reasons why CFC-phase out will not be completed prior to project completion. Exceptions will be considered upon their merits.

## CFC-BASED REFRIGERANTS IN CENTRAL PLANT

Select one of the following:

- ☐ A comprehensive CFC phase-out conversion plan is in place for all mechanical cooling equipment using CFC-based refrigerants.
- ☐ An audit conducted by a third party shows that CFC phase-out (replacement or conversion) is economically infeasible for some or all mechanical cooling equipment using CFC-based refrigerants.

### CFC PHASE OUT CONVERSION PLAN

**Upload EA3-2.** Provide the CFC phase-out conversion plan(s) (or summary) for all mechanical cooling equipment serving the central plant. Highlight language indicating specific equipment using CFC-based refrigerants and expected phase-out dates. Include leakage rates and refrigerant quantities.

Files:

In accordance with the uploaded plan, CFC phase-out in equipment in the central plant will be completed:

- ☐ Before LEED project completion.
- ☐ After LEED project completion.

### CFC PHASE-OUT AFTER COMPLETION

Describe (in detail) reasons why the central plant CFC-phase out will not be completed prior to LEED project completion. Exceptions will be considered upon their merits.

### ECONOMIC ANALYSIS

Name of third party auditor conducting feasibility study:

Auditor company:

- ☐ The individual listed above is not a direct employee of building owner or property manager.

**Table.** Economic Analysis

System Replacement (\$)	Refrigerant Conversion (\$)
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Cost of implementing CFC equipment replacement		Cost of implementing CFC equipment conversion	
Annual cost avoidance for energy bills and maintenance that results from replacement		Annual cost avoidance for energy bills and maintenance that results from the conversion	
Net ten-year replacement savings (costs)		Net ten-year conversion savings (costs)	
Phase out and/or conversion is economically infeasible			

The proposed conversion or replacement costs for HVAC&R equipment must be more than the net ten-year replacement energy savings.

## 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 EAp3-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 EAp3-ACP.** Provide any additional documents that support the alternative compliance path approach. (Optional)

Files:

## SUMMARY

EA Prerequisite 3: Fundamental Refrigerant Management Compliance  
Documented: