



LEED 2009 for Existing Buildings: Operations & Maintenance

EA PREREQUISITE 3: FUNDAMENTAL REFRIGERANT MANAGEMENT

Project #

All fields and uploads are required unless otherwise noted.

THRESHOLD ATTEMPTED

Points Attempted: 0

ALL OPTIONS

Select one of the following:

- ☐ **LEED Design and Construction Streamlined Path:** The LEED project building earned a prerequisite for fundamental refrigerant management (zero CFC only) under LEED for New Construction, LEED for Schools, or LEED for Core & Shell. *This path is not available to projects that earned the prerequisite via phase-out plans or economic analysis.*
- ☒ **Full Documentation Path:** To document compliance with EA Prerequisite 3, the project team will provide refrigerant information for all mechanical cooling equipment that serves the project building.



FULL DOCUMENTATION PATH

Complete the table below for all mechanical cooling equipment serving the project building. Units containing less than 0.5 pounds of refrigerant are exempt.

Table L-3. Refrigerants

HVAC&R Equipment Type	Manufacturer Name	Model Number	Refrigerant Used
Centrifugal Chiller	Trane	CVHE	CFC-11

The content highlighted in yellow above is linked to EAc5.

Note: Usage of a CFC-based refrigerant in equipment serving the project building has been identified in Table L-3. Refrigerants.

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.

ECONOMIC ANALYSIS

Name of third party auditor conducting feasibility study:

Auditor company:

- ☒ The feasibility audit was not conducted by a direct employee of the building owner or property manager.

Complete the table below to document the results of the third party economic analysis. The analysis must use actual energy rates as charged by the local energy supplier, including all avoided costs for energy consumption and peak demand.

Table EAp3-1. Economic Analysis

System Replacement		Refrigerant Conversion	
Cost of implementing CFC equipment replacement (\$)	415,630	Cost of implementing CFC equipment conversion (\$)	180,000
Annual cost avoidance for energy bills and maintenance resulting from replacement (\$)	23,220	Annual cost avoidance for energy bills and maintenance resulting from conversion (\$)	0
Net ten-year replacement savings (costs) (\$)	-183,430	Net ten-year conversion savings (costs) (\$)	-180,000
Phase out and/or conversion is economically infeasible		True	

Note: 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 prerequisite compliance with the submittal requirements outlined in this form.
- ☒ 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 prerequisite intent and requirements. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

Note that the coffee shop and IT closet spaces have been excluded from all credits and prerequisites (except EAp2) and all mechanical cooling equipment serving the project building has been included on the form.

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

Upload

Files: 2

Save Form

SUMMARY

EA Prerequisite 3: Fundamental Refrigerant Management Compliance Documented:

Y

Check Compliance

Save Form