



| v3 - LEED 2009

Occupant comfort - thermal comfort monitoring

EQc2.3 | Possible 1 point

Glossary

Intent

To support the appropriate operations and maintenance of buildings and building systems so that they continue to meet target building performance goals over the long term and provide a comfortable thermal environment that supports the productivity and well-being of building occupants.

Requirements

Have in place a system for continuous tracking and optimization of systems that regulate indoor comfort and conditions (air temperature, humidity, air speed and radiant temperature) in occupied spaces. Have a permanent monitoring system to ensure ongoing building performance to the desired comfort criteria as determined by either of the following standards:

Option 1. ASHRAE standard 55-2004 or non-U.S. equivalent

ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy (with errata but without addenda). Projects outside the U.S. may use a local equivalent to ASHRAE Standard 55-2004 Thermal Comfort Conditions for Human Occupancy.

Option 2. ISO 7730: 2005 & CEN standard EN 15251: 2007

Projects outside the U.S. may earn this credit by meeting the requirements of International Organization for Standardization (ISO) 7730, Ergonomics of the thermal environment, Analytical determination and interpretation of thermal comfort using calculation of the PMV and PPD indices and local thermal comfort criteria; and CEN Standard EN 15251: 2007, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics.

The building must establish the following:

- Continuous monitoring of, at a minimum, air temperature and humidity in occupied spaces. The sampling interval cannot exceed 15 minutes.
- Periodic testing of air speed and radiant temperature in occupied spaces. Using handheld meters is permitted.
- Alarms for conditions that require system adjustment or repair. Submit a list of the sensors, zone set-points and limit values that would trigger an alarm.
- Procedures that deliver prompt adjustments or repairs in response to problems identified.

All monitoring devices must be calibrated within the manufacturer's recommended interval.

Credit substitution available

You may use the LEED v4 version of this credit on v2009 projects. For more information [check out this article](#).