LEED O+M: Existing Buildings | v2008

Sustainable purchasing - reduced mercury in lamps

MRc4.1 | Possible 1 point

Glossary

Intent

To reduce the environmental and air quality impacts of the materials acquired for use in the operations and maintenance of buildings.

Requirements

Develop a lighting purchasing plan that specifies maximum levels of mercury permitted in mercury-containing lamps purchased for the building and associated grounds, including lamps for both indoor and outdoor fixtures, as well as both hard-wired and portable fixtures. The purchasing plan must specify a target for the overall average of mercury content in lamps of 90 picograms per lumen-hour or less. The plan must include lamps for both indoor and outdoor fixtures, as well as both hard-wired and portable fixtures. The plan must require that at least 90% of purchased lamps comply with the target (as measured by the number of lamps). Lamps containing no mercury may be counted toward plan compliance only if they have energy efficiency at least as good as their mercury-containing counterparts.

Implement the lighting purchasing plan during the performance period such that all purchased mercury-containing lamps comply with the plan. One or two points are awarded to projects for which at least 90% of all mercury-containing lamps purchased during the performance period (as measured by the number of lamps) comply with the purchasing plan and meet the following overall targets for mercury content:

- **MR Credit 4.1** (1 point): 90 picograms per lumen-hour
- **MR Credit 4.2** (2 points): 70 picograms per lumen-hour

A template calculator to aid in documenting performance for MR Credits 4.1 and 4.2 is available in the LEED for Existing Buildings: Operations & Maintenance Reference Guide.

Exception: Screw-based, integral compact fluorescent lamps (CFLs) may be excluded from both the plan and the performance calculation if they comply with the voluntary industry guidelines for maximum mercury content published by the National Electrical Manufacturers Association (NEMA), as described in the LEED for Existing Buildings: Operations & Maintenance Reference Guide. Screw-based, integral CFLs that do not comply with the NEMA guidelines must be included in the purchasing plan and the performance calculation.

Performance metrics for lamps—including mercury content (mg/lamp), mean light output (lumens) and rated life (hours)—must be derived according to industry standards, as described in the LEED for Existing Buildings: Operations & Maintenance Reference Guide. Mercury values generated by toxicity characteristic leaching procedure (TCLP) tests do not provide the required mercury information for LEED for Existing Buildings: O&M and cannot be used in the calculation.

LEED for Existing Buildings: O&M addresses only the lamps purchased during the performance period, not the lamps installed in the building. Similarly, LEED for Existing Buildings: O&M does not require that each purchased lamp comply with the specified mercury limit; only the overall average of purchased lamps must comply.

Mercury-containing lamps (or their high-efficiency counterparts) must be purchased during the performance period to earn points in this credit.