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The following is from the current USGBC rules for obtaining LEED points for Cooling Tower Water Management. These are a guide. For ingenuity, extra points can be given. The exact points allowed are at the discretion of the USGBC personnel assigned.

## **LEED POINTS**

### **WE Credit 4: Cooling Tower Water Management**

#### **1–2 points**

##### **Intent**

To reduce potable water consumption for cooling tower equipment through effective water management and/or use of nonpotable makeup water.

##### **Requirements**

###### **OPTION 1. Chemical Management (1 point)**

Develop and implement a water management plan for the cooling tower that addresses chemical treatment, bleed-off, biological control and staff training as it relates to cooling tower maintenance. Improve water efficiency by installing and/or maintaining a conductivity meter and automatic controls to adjust the bleed rate and maintain proper concentration at all times.

##### **OR**

###### **OPTION 2. Nonpotable Water Source Use (1 point)**

Use makeup water that consists of at least 50% nonpotable water, such as harvested rainwater, harvested stormwater, air-conditioner condensate, swimming pool filter backwash water, cooling tower blowdown, passthrough (once-through) cooling water, recycled treated wastewater from toilet and urinal flushing, foundation drain water, municipally reclaimed water or any other appropriate on-site water source that is not naturally occurring groundwater or surface water.

Have a measurement program in place that verifies makeup water quantities used from nonpotable sources. Meters must be calibrated within the manufacturer's recommended interval if the building owner, management organization or tenant owns the meter. Meters owned by third parties (e.g., utilities or governments) are exempt.

##### **OR**

###### **OPTION 3. (2 points)**

Achieve both Options 1 and 2.

##### **Potential Technologies & Strategies**

Work with a water treatment specialist to develop a water management strategy addressing the appropriate chemical treatment and bleed-off to ensure proper concentration levels in the cooling tower. Also, develop a biocide treatment program to avoid biological contamination and the risk of *Legionella* in the building. Identify nonpotable water sources that may be suitable for use in the cooling tower makeup water. Ensure that the water meets the cooling tower manufacturer's guidelines in terms of water purity and adjust the chemical treatment program accordingly.

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