



Water use reduction - cooling towers

WEc4.2 | Possible 1 point

Intent

To reduce or eliminate the use of potable water for non-potable process use in building system equipment.

Requirements

- Cooling towers and evaporative condensers for air conditioning systems, such as chilled water systems, shall achieve a minimum of five cycles of concentration based on a ratio of the conductivity of the water being discharged (blowdown) divided by the conductivity of the feed (makeup) water(s), or four cycles of concentration, if the makeup water hardness exceeds 200 mg/l expressed as calcium carbonate, or shall achieve a minimum discharge (blowdown) concentration of 1500 mg/L (1500 ppm) expressed as calcium carbonate, or 175 mg/L (175 ppm) of silica measured as silicon dioxide, whichever is met first.
- Cooling towers and evaporative condensers shall be equipped with makeup and blowdown meters, conductivity controllers and overflow alarms and efficient drift eliminators that reduce drift loss to less than, or equal to, 0.001% of recirculating water in a counter-flow tower or 0.005% in a cross-flow tower.
- Use no more potable water than 2.3 gallons per ton hour (2.5 liters per kilowatt hour) for cooling tower or evaporative condenser make-up.
- Projects without cooling towers or evaporative condensers are ineligible for this credit