LEED v4.1 BD+C: New Construction

Optimize Process Water Use

Select one of the following:

- (●) Option 1. Cooling Tower and Evaporative Condenser Cycles of Concentration
- ( ) Option 2. Optimize Water Use for Cooling
- ( ) Option 3. Process Water Use

Option 1. Cooling Tower and Evaporative Condenser Cycles of Concentration

Table: Potable water analysis

Enter the values for the following parameters from the potable water analysis.

Parameter	Potable Water Analysis Level		Maximum Concentrations		Cycles of Concentrations
Calcium (as CaCO3)	28.3	ppm	600	ppm	21.2
Total alkalinity	56	ppm	500	ppm	8.93
SiO2	8.1	ppm	150	ppm	18.52
Cl-	31.7	ppm	300	ppm	9.46
Conductivity	302	µS/cm	3300	µS/cm	10.93
Number of cycles without exceeding concentration levels across all parameters (before treatment)					8

Note: Number of cycles is rounded down to the nearest whole number.

Number of cycles designed for project cooling tower(s) 8

Note: To earn 1 point, set the project cooling tower(s) to cycle at the level calculated above. If treatment is used, cycles may exceed the number of cycles in Table: Potable water analysis.

If the number of cycles designed for the project cooling tower(s) exceeds the level calculated in Table: Potable water analysis, describe the treatment strategy used to maintain the appropriate levels of concentration and the method for removing or preventing deposit build-up. (Optional)

Upload manufacturer information used to determine the maximum cycles of concentration for the installed system.

For projects pursuing 1 additional point

Select one. Indicate which strategy was pursued:

- ○ Achieve the maximum number of cycles to earn 1 point, and increase the number of cycles by a minimum of 25% by increasing the level of treatment and/or maintenance.
- ◉ Use at least 20% recycled, nonpotable water

For CS projects pursuing 3 points

Select one. Indicate which strategy was pursued:

- ○ Achieve the maximum number of cycles to earn 1 point, and increase the number of cycles by a minimum of 30% by increasing the level of treatment and/or maintenance.
- ○ Use at least 30% recycled, nonpotable water.

Upload a narrative describing the methodology that was used to conduct the potable water analysis and the location where the potable water was measured. OR, upload the results of the analysis done by the project team or municipality. Highlight the parameters identified in Table: Potable water analysis. If using at least 20% nonpotable water, upload the nonpotable water calculations and a description of the nonpotable source and the water analysis conducted and/or treatment strategy used to maintain the appropriate levels of concentration.

Special Circumstances

Describe the circumstances limiting the project team's ability to provide the submittals required in this form. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits. (Optional)

Please refer to the document UT Austin Water Treatment Narrative for Cooling Towers v2 102720 in uploads. This project is connected to the Carl J. Exkhardt Combined Heating and Power Complex, which is certied PEER Platinum and contributes to this credit.

Upload any additional documentation that supports the claim to special circumstances. (Optional)

Last edited on 20 Aug 2021 03:30 PM