



GRISWOLD WAVE TECHNOLOGY SUPPORTS LEED CERTIFICATION

HOW CAN GRISWOLD WATER SYSTEMS TECHNOLOGY HELP ME ACHIEVE LEED CERTIFICATION?

Griswold Water Systems Wave technology provides a sustainable solution to water treatment. Not only does Griswold Wave technology replace toxic chemicals associated with traditional water treatment in evaporative and non-evaporative cooling loops, it preserves cooling system cleanliness through filtration and environmentally friendly sanitation. When cooling systems are clean, system efficiency is preserved resulting in energy savings.

Multiple advantages for the end user exist, including:

- Elimination of toxic chemicals from water systems preventing toxic blowdown to the environment
- Realization of significant water (\$) savings by operating Cooling Towers at higher cycles of concentration than those towers would otherwise run on chemicals
- Reuse of non-toxic blowdown and the reduction in potable water required for other uses
- Maintaining capital equipment in a state of peak efficiency
- Elimination of the need to handle toxic chemicals
- Elimination of the need to maintain required safety equipment
- Reduced exposure to Legionella by preserving the cleanliness of recirculating water systems

While not all of these advantages are recognized by the LEED rating system, many are. Points may be awarded under two primary categories, Water Efficiency (WE), and Innovation and Design (ID).

WHAT SPECIFIC POINTS CAN YOUR TECHNOLOGY HELP ME ACHIEVE?

It is important to remember that the LEED rating system was designed by the United States Green Building Council members to highlight the overall efficiency and environmental sensitivity of a building. In some cases, Griswold Wave technology can directly garner points in the certification process. In other cases, adopting Wave technology contributes to the overall achievement of building efficiency and can assist in obtaining points when additional technology is incorporated with the Griswold Wave. The discrepancies, where present, are noted below.

Water Efficiency (WE) Credits

WE Credit 1: Water Efficient landscaping (2 to 4 points by incorporating Griswold Wave Technology) – intended to reduce potable water consumption for landscaping by 50% through use of recycled wastewater (worth 2 points) or, by completely eliminating water required for irrigation (worth 4 points.) Griswold Wave equipment allows you to eliminate the need for toxic chemicals enabling you to capture cooling tower blowdown and reuse it for irrigation. Additional equipment such as holding tanks and conveyance systems may be required.

WE Credit 2: Innovative Wastewater Technologies (up to 2 points by incorporating Griswold Wave technology) – intended to reduce wastewater generation and potable water demand while increasing the local aquifer recharge. Griswold Wave equipment allows you to eliminate the need for toxic chemicals enabling you to capture cooling tower blowdown and recycle that blowdown onsite. Additional equipment such as holding tanks and conveyance systems may be required.

WE Credit 3: Water Use Reduction (2 to 4 points by incorporating Griswold Wave technology) – intended to increase water efficiency and reduce the burden on municipal water supply and wastewater systems. Water consumption standards in the LEED certification process tend to focus on lavatories and faucets. While Griswold Wave technology often allows a customer to experience dramatic water savings in the form of cooling towers operating at higher cycles of concentration, the LEED model will only recognize captured bleed water reused in the system. Additional equipment such as holding tanks and conveyance systems may be required.

Energy and Atmosphere (EA) credits

While it is true that Griswold Wave technology preserves the cleanliness of heat transfer surfaces in cooling systems, thereby dramatically enhancing

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HVAC efficiency when compared to dirty towers under non-sustainable scale and biofilm control methods, total building load in the LEED rating system is calculated on optimal performance conditions. Thus, while Griswold Wave technology can sustain energy efficiency in these cooling systems, its impact is not recognized from the outset of building performance when new systems are generally clean.

Innovation in Design (ID) Credits

ID Credit (up to 2 points available by directly using Griswold Wave technology) – created to recognize exceptional performance above the requirements set by LEED Green Building Rating System. Three paths exist to obtain LEED credit in the Innovation and Design Categories. The following two paths apply to Griswold Wave technology and are not mutually-exclusive (e.g., both points may be awarded.)

Path 1: (1 point using Griswold Wave) Griswold Wave technology allows customers to eliminate toxic chemicals from their cooling tower discharge. By documenting the reduction of chemicals, 1 point may be awarded. No additional equipment is required.

Path 3: Pilot Credit 10 - Sustainable Wastewater management (1 point using or incorporating Griswold Wave). By eliminating use of toxic chemicals in cooling water, the tower blowdown water may be recycled. The credit is awarded for recycling 25% of total onsite wastewater. Water must meet the NSF 350 standard for onsite use.

CAN GRISWOLD WATER SYSTEMS HELP ME WITH THE LEED APPLICATION?

Most definitely. Griswold Water Systems professionals are familiar with the LEED process and can help you document typical water savings and the total volume of toxic chemicals our system eliminates. In some cases, we can also recommend water capture and retention systems for use in greening your building. After conducting a water sample for the specific water at your site, we can also optimize our equipment and the cooling tower set-point to run at optimal water efficiency.

FOR MORE INFORMATION

For additional Frequently Asked Questions about USGBC or the LEED certification process please see our comprehensive USGBC overview document. Also visit the United States Green Building Council website for more information. www.usgbc.org

For additional information about how our products may help you meet your sustainability goals, please contact our corporate headquarters. Be prepared to discuss your building needs and your plan for LEED certification.

DID YOU KNOW?



wave™

Griswold Water Systems Wave technology is on multiple LEED certified buildings across the United States, including the 400,000 square foot California Academy of Sciences in San Francisco.



CALIFORNIA ACADEMY OF SCIENCES'
LIVING ROOF KEEPS IT GREEN



The Griswold Wave sustainable water treatment technology is part of Griswold Water Systems' certified Greenline family of products.

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