DCA Highlights Dehumidification for Water Treatment Plants

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CEDARBURG, WI - March 31, 2026 -
Dehumidifier Corporation of America (DCA) is drawing attention to the critical importance of dehumidification systems in water treatment plants, where uncontrolled moisture poses serious risks to infrastructure, equipment, and worker safety. The company, which has manufactured dehumidification solutions since 1995, has published detailed guidance on addressing humidity challenges specific to water treatment environments.

Water treatment facilities face unique moisture control problems that differ significantly from other industrial settings. Cold water from lakes or wells, often ranging from 33 degrees Fahrenheit to 60 degrees Fahrenheit, creates conditions where condensation readily forms on pipes, pumps, valves, electrical panels, and concrete surfaces. When the dew point in a facility is not properly managed, the resulting moisture accumulation leads to corrosion, rust, mold growth, and premature equipment failure.

The consequences of neglecting humidity control in these environments extend well beyond cosmetic concerns. Electric motor-driven water pumps can draw in moisture during cooling periods after shutdown, potentially causing short circuits upon restart. Electrical control panels containing fuses and circuit breakers are similarly vulnerable.

"Water treatment plants present a particularly demanding environment for moisture control because of the consistently low temperatures involved," said Errol Gelhaar, an executive at Dehumidifier Corporation of America. "Standard dehumidification equipment often cannot operate effectively at the temperatures found in these facilities, which is why purpose-built systems designed for low-temperature duty are essential."

Facilities constructed both above and below grade face distinct challenges related to moisture intrusion. Above-ground structures with loose construction allow humid outdoor air to pass through walls and ceilings, while underground facilities must contend with moisture migrating through concrete walls, floors, and ceilings. Inadequate vapor barriers, poorly sealed doors and windows, and insufficient weatherstripping all contribute to elevated indoor humidity levels.

The financial impact of moisture damage at water treatment plants can be substantial. Metal surfaces coated with corrosion-resistant epoxy will eventually break down when subjected to persistent condensation. When that occurs, maintenance crews must strip rusted and scaled surfaces down to bare metal before applying new undercoating and epoxy top coating. Unplanned maintenance of this nature disrupts operations and drives up costs.

Bacterial growth presents another concern in facilities where relative humidity rises above 70 percent. Areas with insufficient air circulation are especially prone to mold and mildew development. In structures with wood-framed walls, mold can form within the wall cavity and go unnoticed until it appears on interior surfaces, sometimes requiring complete teardown and replacement.

"Proper dehumidification involves more than simply installing equipment," Gelhaar added. "An adequate duct system is equally important because it circulates dry air throughout the entire structure and eliminates pockets of stagnant, humid air that can cause localized problems."

DCA manufactures dehumidifiers specifically engineered for water treatment plant conditions, with the capability to operate at ambient temperatures as low as 60 degrees Fahrenheit. The company offers optional remote condensers that allow systems to deliver cool dry air depending on seasonal requirements. Additional gas or electric furnace add-ons can supply supplemental heating to maintain target room temperatures and relative humidity levels simultaneously.

Installation flexibility is a key consideration for water treatment facilities, and DCA equipment can be configured for indoor, outdoor, or rooftop placement. Both horizontal and vertical unit configurations are available to accommodate varying ductwork layouts and space constraints. Controls can be integrated into existing building management systems or installed as standalone wall-mounted humidistats.

A recent DCA case study documented how low-temperature dehumidification helped protect facility equipment from rust and corrosion as outside temperatures fluctuated through seasonal changes. The results demonstrated that maintaining the room dew point approximately five degrees Fahrenheit below the coldest surface temperature in the facility effectively prevented condensation from forming on critical components.

Dehumidifier Corporation of America is based in Cedarburg, Wisconsin, and has provided dehumidification solutions for commercial and industrial applications for three decades. The company serves water treatment plants, swimming pool facilities, warehouses, agricultural operations, and other environments where moisture control is essential. For more information about dehumidification systems for water treatment plants, visit DCA?s website

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Dehumidifier Corporation of America

Founded in 1995, Dehumidifier Corporation of America (DCA) is a US Corporation that is totally dedicated to the field of Dehumidification

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