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Heating & cooling systems using “nature’s way” to provide water treatment with ProMoss - by Dan Cook

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Canal Place One was one of the first of three buildings once owned by the Lowell Manufacturing Co. to have been converted to condos in the 1980s. The Canal Place Condominiums are managed by Royal Management owned by Cathy Deloge.

The Problem

Deloge was unhappy with the chemical treatment program for Canal Place which was:

Affecting the heat transfer efficiency of the HVAC equipment resulting in energy losses and heating and cooling complaints.

The hot water and chilled water loops were also dirty.

The condominium was paying too much for water and sewer use.

The Solution

Conservation Solutions Corp. (CSC) has provided non-hazardous chemical water treatment systems throughout New England for over 25 years. These customers want to:

- Reduce water and sewer costs (New England has some of the highest water & sewer rates in the country);
- Reduce heat and cooling energy use & cost; and
- Eliminate hazardous chemicals for the hot water and chilled water loops, as well as the condenser loop for the cooling towers.

CSC installed the ProMoss Water Treatment System to stabilize pH, control corrosion and disinfect the hot and chilled water closed loops and the cooling tower condenser open loop. ProMoss System has completely eliminated hazardous chemicals in Canal Place One’s water treatment system.

The ProMoss System uses “nature’s way” – Sphagnum Moss to treat water in hot water and chilled water loops as well as cooling tower condenser loop. ProMoss effectively controls calcite scale, organic contamination and corrosion. The result is crystal clear water and clean heat transfer surfaces to optimize energy efficiency.

The cooling tower at Canal Place One is also treated with ProMoss. CSC service techs test bacteria counts monthly. They have consistently been less than 1,000 colony forming units per ml (CFU/ml), corrosion is controlled and the water in the cooling tower is crystal clear. Bacteria counts this low effectively control legionella bacteria making for a safer work environment for staff and contractors.

Deloge said she was, “Really pleased to see the hot water, chilled water and glycol loops become crystal clear within a month of the ProMoss System installation and they have stayed clean for the last 3 years making for a ‘greener’ operation at Canal Place.” Canal Place Condominiums has invested in a “greener” building with excellent financial gains by reducing water and sewer use and related costs as well as improving energy efficiency due to less fouling from calcite scale.

ProMoss Helps Meeting Corporate Sustainability Goals

Canal Place joins organizations like Corning Glass and the Rochester Institute of Technology many universities, fortune 500 companies, schools, hospitals, multifamily, industrial, institutional and commercial building owners across the country and locally here in New England who are switching to a greener more natural way to treat the water in their HVAC and process systems. These companies are using the ProMoss Systems to help meet their corporate goals of reducing energy, saving water and reducing or eliminating hazardous chemicals and their potentially costly application and control. The ProMoss System or “nature’s way” to treat water helps these companies to reducing their environmental footprint by using – the natural properties of Sphagnum moss to improve water quality without hazardous chemicals.

ProMoss is one of the first all-natural and sustainable plant-based water treatment solutions for today’s water issues. The ProMoss products harness the natural properties of Sphagnum moss to improve water quality and every surface touched by water. The Sphagnum moss in this water treatment system is a natural, green plant that grows in bogs. It is harvested by hand, in a sustainable manner, can be re-harvested in 5-7 years, is processed, sterilized and packaged. The ProMoss is simply replaced each month and the used ProMoss can be composted on the property since it is not contaminated with chemicals. Royal Management has taken a leadership position in using the ProMoss system to improve the HVAC system water quality. Hazardous chemicals have been eliminated and water quality improved while optimizing water and energy efficiency at Canal Place One Condominiums thus reducing the environmental footprint of the building.

Boiler water before ProMoss

Boiler water after ProMoss

The Results

- Eliminated use & cost of hazardous chemicals;
- Reduced energy, water & sewer costs;
- Improved working environment for staff and contractors by eliminating the need to handle hazardous chemicals;
- Protected the cooling & heating systems from corrosion;
- Eliminate calcite scale = energy savings;
- Monthly cooling system water testing shows bacteria levels have been controlled at <1,000 cfu/ml for 3-years; and
- “Greener” building.

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