

Tennant Company's ORBIO Technologies Group Releases Results of Elliott Affiliates Study on Real-World Effectiveness of ec-H2O™ Technology

Tennant Company, a world leader in designing, manufacturing and marketing solutions that help create a cleaner, healthier world, and its dedicated chemical-free technology development arm, ORBIO Technologies Group, today announce the results of an independent third-party study by Elliott Affiliates, a leading innovator in janitorial performance evaluation, on the effectiveness of Tennant's ec-H2O technology. ec-H2O converts plain tap water into a powerful cleaning agent without any added chemicals. Consistently lauded by both industry and environmental leaders for its cleaning performance as well as its health and sustainability benefits, the third-party study confirms that ec-H2O technology performs exceptionally well in very challenging environments. This study confirms ec-H2O powerfully cleans as well as or better than automated scrubbing technologies using traditional chemicals in four key categories, including cleanliness, hygienic safety, appearance, and sustainability.

"Since we introduced the cleaning industry to chemical-free floor cleaning in 2007, we have been overwhelmed by the exceptionally positive feedback we've received from customers and industry experts alike," said Chris Killingstad, president and CEO of Tennant Company. "It is both gratifying and affirming to receive that same kind of positive feedback in the form of a credible third-party study."

The Elliott Affiliates study was specifically designed to test ec-H2O's performance under real-world cleaning conditions. For that reason, testing occurred in a Baltimore-based soft drink bottling plant that is operational 24 hours per day, seven days per week. Floor conditions in the plant included sugary syrup residue; petroleum-based stains and residue; and dirt, oil and other outside debris. Five different test areas within the plant with either unfinished concrete or VCT flooring were identified, including the pallet area, a corridor, a loading dock, a bottling area, and a cafeteria, and, over a period of three days, half of each test area was scrubbed with a traditional scrubber-dryer and the other half with Tennant's ec-H2O technology.

The study focused on four key test categories, including cleanliness, hygienic safety, appearance and sustainability. Cleanliness and hygienic safety were measured by testing for the presence of adenosine triphosphate (ATP), which indicates the presence of contamination, such as food residue, allergens and/or bacteria. Appearance was measured by taking before and after photographs. Sustainability was measured by testing and comparing a list of factors related to the social, economic, and environmental impacts of the technologies.

Study results show that ec-H2O technology outperformed the scrubber-dryer using traditional chemicals by reducing the presence of ATP by an average of 90.1 percent versus 84.2 percent and reducing the presence of aerobic bacteria by an average of 95.1 percent versus 89.7 percent. Results also show that ec-H2O performed as well as or better than the traditional scrubber-dryer in removing visible soil and improving overall floor appearance. And, based on the sustainability factors outlined and measured, ec-H2O technology provided superior environmental, economic and social benefits over the scrubber-dryer using traditional chemicals by using 70 percent less water, releasing no used detergent discharge into water systems, eliminating chemical residue, enhancing worker safety, and reducing costs for purchasing and disposing of chemicals.

"At Elliott Affiliates, we pride ourselves on conducting independent and thorough evaluations on the performance of janitorial products and technologies," said Vince Elliott, founder and CEO of Elliott Affiliates, Ltd. "In this particular study, ec-H2O technology was the clear winner in all categories when tested against commonly used scrubber-dryer technologies using traditional chemicals."

Developed by Tennant researchers and engineers and named by R&D Magazine as one of the most technologically significant developments in 2008, ec-H2O technology helps to meet the ever-growing need for sustainable cleaning. The ec-H2O technology delivers proven cleaning results without the negative environmental and health concerns associated with producing, packaging, transporting, using and disposing of traditional cleaning chemicals.

About Elliott Affiliates, Ltd.

Elliott Affiliates, Ltd., a consulting firm based in Baltimore, MD, is a leading innovator in janitorial performance evaluation since 1973. Elliott is an expert in value-driven cleaning evaluation services, performance-based outsourcing and environmentally responsible cleaning programs that guarantee to measurably increase the quality of cleanliness in facilities at decreased cost. A member of the USGBC and licensed by ICM to drive development of ever improving best practices for cleaning systems, Elliott Affiliates mission is a systematic search for excellence in all facets of the cleaning industry, in every building category.

About Orbio Technologies Group

Orbio Technologies Group is the chemical-free cleaning technology development arm of Tennant Company. Established in 2009 to execute on Tennant Company's vision of becoming a global leader in chemical-free cleaning, Orbio Technologies Group is dedicated to developing and marketing technologies under the brand name of ORBIO that will set the standard for sustainable cleaning around the world. Leveraging Tennant's proprietary and award-winning ec-H2O technology, Orbio Technologies Group will continue to create and deliver environmentally friendly cleaning solutions to Tennant's existing markets and new markets.