

Heritage-Crystal Clean, Inc. and Battelle to Collaborate on PFAS Destruction for Wastewater

ELGIN, IL and COLUMBUS, Ohio (March 29, 2022)— [Heritage-Crystal Clean, Inc.](#) (NASDAQ: HCCI) and [Battelle](#) will join forces to tackle one of today's most formidable environmental challenges—the removal and destruction of per-and polyfluoroalkyl substances (PFAS) from wastewater.

Battelle has chosen Heritage-Crystal Clean, Inc. (Crystal Clean) as its partner to use, market and service Battelle's PFAS destruction technology for commercial applications. Crystal Clean will use these key technologies in its own wastewater treatment plants and at third party landfills, wastewater treatment plants, and other commercial applications. Crystal Clean also will work collaboratively with Battelle for use of the technology at other sites and for other applications.

Battelle's PFAS Annihilator™ uses supercritical water oxidation (SCWO) to destroy PFAS in industrial wastewater, landfill leachate and other contaminated water. This is a market-leading solution for PFAS removal and destruction at waste processing facilities.

"PFAS properties are unique—they are oil and water repellent, temperature resistant, and friction reducing—making them extremely difficult to remove," said Battelle PFAS Program Director Amy Dindal. "Unlike other treatment methods that can relocate the PFAS, like incineration or filtering, Battelle's Annihilator™ breaks the carbon-fluorine bond and destroys PFAS."

For Crystal Clean CEO Brian Recatto, the necessity to add PFAS destruction capabilities for his company came from his customers. "We are taking calls all the time asking if we can help to get rid of PFAS," he said. "We are a leader in wastewater treatment, and we need to implement fast, large-scale solutions so we can address this critical issue to prevent harm to human health or the environment. We look forward to working closely with Battelle experts to market and implement this game changing technology."

The implementation of this PFAS destruction solution is timely given the U.S. Environmental Protection Agency's intention defined by its [PFAS strategic roadmap](#) to undertake rulemaking to restrict PFAS discharges from industrial sources.

About Heritage-Crystal Clean

Heritage-Crystal Clean, Inc. provides parts cleaning, used oil re-refining, and hazardous and non-hazardous waste services primarily to small and mid-sized manufacturers and other industrial businesses as well as customers in the vehicle maintenance sector. Our service programs include parts cleaning, containerized waste management, used oil collection and re-refining, wastewater vacuum, waste antifreeze collection, recycling and product sales, and field services. These services help our customers manage their used chemicals and liquid and solid wastes, while also helping to minimize their regulatory burdens. Our customers include small-to-medium sized manufacturers, such as metal product fabricators and printers, and other industrial businesses as well as businesses involved in vehicle maintenance operations, such as car dealerships, automotive repair shops, and trucking firms. Through our used oil re-refining program during fiscal 2021, we recycled approximately 66 million gallons of used oil into high quality lubricating base oil, and we are a supplier to firms that produce and market finished lubricants. Through our antifreeze program during fiscal 2021 we recycled approximately 3.9 million gallons of spent antifreeze which was used to produce a full line of virgin-quality antifreeze products.

Through our parts cleaning program during fiscal 2021 we recycled 2 million gallons of used solvent into virgin-quality solvent to be used again by our customers. In addition, we sold 0.5 million gallons of used solvent into the reuse market. Through our containerized waste program during fiscal 2021 we collected 21 thousand tons of regulated waste which was sent for energy recovery. Through our wastewater vacuum services program during fiscal 2021 we treated approximately 49 million gallons of wastewater. Heritage-Crystal Clean, Inc. is headquartered in Elgin, Illinois, and operates through 91 branches serving approximately 95,000 customer locations.

About Battelle

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products, and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio since its founding in 1929, Battelle serves the national security, health and life sciences, and energy and environmental industries. For more information, visit www.battelle.org.

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