



Green and Sustainable Services, LLC

Designing Programs for a Better Future – Developing Processes for Tomorrow & Building Projects for Today!

NEWS RELEASE

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Green and Sustainable Services' (GSS) Water Treatment Program at the Food and Drug Administration's Jefferson Laboratories Complex (JLC) located in Jefferson, Arkansas (AR) was winner of the International Institute of Sustainable Laboratories' (I²SL) 2019 Go Beyond Award for advancing sustainable, high performance facilities.

The JLC (one-million square foot research campus) is comprised of the National Center of Toxicological Research (NCTR) and the Office of Regulatory Affairs (ORA). This facility is superior in comparison to other facilities of its size due to the dedication and professional work ethics of the GSS-O&M Contractor-FDA JLC team members and to the excellent water treatment program in which lower cycles of concentration are utilized and reduction of wastewater blowout for water conservation with reduction in scale and corrosion which allows for more efficient energy consumption.

Heating, ventilation, and air conditioning (HVAC) systems are responsible for providing comfort temperature environments and fresh air flow to buildings and can on average consume 39% of a facility's energy use which can significantly impact the environment. That facility's energy demand can even be greater when the water systems are used for purposes beyond HVAC systems and are an integral part of a plant or industrial process. Running lower than optimal cycles of concentration for a water treatment program uses more fresh water make up and requires a much higher volume of blowdown resulting in larger quantities of chemical treatment consumption which would not be considered environmentally sustainable. A water system that exhibits scale or deposition buildup on heat exchanger surfaces requires more energy to maintain system operations.

Sustainability, green, water and energy conservation are phrases often heard, but are actual components used at the JLC Facility and an integral part of the Green and Sustainable Services' Water Treatment Program put into practice by the GSS-O&M Contractor-FDA team which have been verified and documented by the JLC Facility. The JLC reported to the Entergy Corp. (integrated energy company delivering electricity to 2.9 million customers in AR, LA, MI & TX) approximately a thirty percent (30%) reduction in energy consumption and reporting to the State of Arkansas approximately a sixty eight percent (68%) reduction in water consumption. This environmentally responsible water treatment program approach was recently third party validated voluntarily as exemplary noteworthy by a Boiler Inspector for the Arkansas Department of Labor, who stated that he will use this program as a sustainably conscientious example for future trainees.

The GSS team's innovative water treatment approach provides the JLC with an environmentally sustainable program with notable advantages such as ongoing conservation measures (energy and water), wastewater reduction, decreased chemical consumption and minimized maintenance and associated repair cost. Energy efficiency and conservation is due to maintaining clean and corrosion free heat exchange surfaces. Systems that have scale and deposition use more energy and are less efficient as compared to a clean and deposition free systems. Water conservation is due to maintaining optimum cycles of concentration which results in using less make-up water and discharging less blowdown or wastewater.

The superior results achieved with the Green and Sustainable Services water treatment approach goes well beyond implementation of technologically advanced water treatment chemistries. The JLC water treatment system achievement is due to the implementation of a comprehensive water treatment program in which success can be attributed to getting buy in from everyone in the GSS-O&M Contractor-FDA team that comes in contact with the water systems every day. Overall the success and achievement of the JLC innovative and sustainable GSS water treatment program is a triple win for all members of the GSS-O&M Contractor-FDA team, produces a return on investment for the JLC Facility, and conserves water and energy for our world which makes us worthy of the 2019 I²SL Go Beyond Award.

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