

UV Water Treatment
Hydro-Optic™ Technology

EPRI 2019 Generation Technology Transfer Award

Presented to Plant Bowen for Boiler Feed Water Dechlorination Using Hydro-Optic™ UV

Aaron Nickles, System Owner, Southern Company - Plant Bowen, and Tracy Underwood, Lab Team Leader, Southern Company - Bowen Georgia Power Company were recently selected to receive an Electric Power Research Institute (EPRI) Generation Technology Transfer Award for Plant Bowen's boiler feed water dechlorination using Hydro-Optic™ (HOD) UV — Atlantium's environmentally friendly HOD UV technology.

Plant Bowen, a 3,160 megawatt coal-fired power station, in Cartersville, Ga., installed the HOD UV water treatment technology, to improve the overall quality of reverse osmosis (RO) feed water. After three years of operation, the RO membranes were operating at the same level as new elements. Since the installation of the HOD UV technology the facility has reduced the use of SMBS for dechlorination and also minimized the frequency of micron filter replacement. These operational efficiencies have resulted in a net savings of more than \$250K, providing a two-year return on investment.

Atlantium is honored to be part of this project that has been recognized for its technical excellence and collaboration with the prestigious EPRI 2019 Generation Technology Transfer Award.

Why Atlantium HOD UV?

Power facilities looking to address biofouling concerns such as severe fouling of the RO membranes and corrosion issues in the condensate are no longer limited to chemical-based dechlorination technologies. The HOD UV system offers a unique, non-chemical dechlorination approach capable of addressing the biofouling concerns extending membrane life and improving water quality in cycle water chemistry plants — all while keeping costs down.

HOD UV measures critical operating parameters in real time to maintain the minimum required UV dose despite the dynamic operating conditions encountered, ensuring complete control of bacteria and removal of Free Available Chlorine (FAC) to below 0.01 ppm — essentially non-detectable.



Incorporating HOD™ UV at Plant Bowen has reduced the use of SMBS for dechlorination and minimized the frequency of micron filter replacement.