

APPLICATION BRIEF

DISINFECTION / DECHLORINATION



Georgia Power Installs Hydro-Optic™ UV System at Plant Bowen for Non-Chemical Disinfection & Dechlorination

Georgia Power, a subsidiary of Southern Company, installed the Hydro-Optic™ (HOD) UV technology for non-chemical disinfection and dechlorination in March 2014 at their coal-fired power station Plant Bowen.

Plant Bowen, a 3,160-megawatt coal-fired power station, in Cartersville, Georgia faced frequent membrane and micron-filter maintenance and replacement as a result of bio and solids-fouling despite their use of an SMBS dechlorination process.

In an effort to address their concerns, the Plant Bowen Water Research Center evaluated the performance of the HOD UV water treatment technology, manufactured by Atlantium Technologies, Inc., to enable them to replace the use of sodium metabisulfite, reduce the usage of chlorination, and achieve a chemical-free dechlorination process.

At the conclusion of the evaluation period, results showed the HOD UV system to consistently meet or exceed treatment objectives. The HOD UV technology effectively removed free and total chlorine from boiler feed water to undetectable levels from inlet free and total chlorine levels above 1 ppm. Bacteria levels were also reduced to low acceptable levels.

“Results from the full-scale demonstration testing of the HOD UV system confirm the efficacy of UV as a treatment technology option suitable for dechlorination. What’s unique about the Hydro-Optic treatment approach is its ability to disinfect and dechlorinate in a single, chemical-free process,” said Richard Breckenridge, EPRI Water Management Technology Program Manager.

Following the successful full-scale demonstration of the HOD UV technology, the system was put into full-scale operations at the plant in March 2014. Based on the savings in chemical elimination, benefits of reduced CIP, extended life of the membranes, and reduced organic loading leading to fewer regeneration cycles of the demineralizers, the HOD UV technology has been a favorable addition to disinfection and dechlorination treatment efforts at Plant Bowen.



HOD™ UV Installation Plant Bowen

- (3) Model RZ300-13
- Flow Rates: 340 to 680 gpm (77 to 154 m³/hr)
- UV Transmittance: 95% UVT

For more information, contact your Atlantium representative

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