

UV Water Treatment
Hydro-Optic™ Technology

Atlantium's Hydro-Optic™ UV Protects Hoover Dam Against Invasive Mussels

The first of 17 Hydro-Optic™ (HOD) UV units from Atlantium has been commissioned at the Hoover Dam, a hydroelectric facility with a nameplate capacity of approximately 2,080 megawatts that is managed by the Bureau of Reclamation (Reclamation) Lower Colorado Dam Office. Hoover Dam has seventeen cooling water systems for turbines requiring protection from mussels; nine on the Arizona wing and eight on the Nevada wing.

Following the spread of quagga mussels to Lake Mead, Reclamation began a feasibility study in 2007 to identify control options that could protect its facilities (Hoover, Davis, and Parker Dams) while having little to no environmental or ecological impact.



The HOD UV technology was selected as the preferred treatment to supplement operational and mechanical activities already in place at Hoover Dam by the North Wind Group, who was awarded the contract by Reclamation to provide UV lights and associated piping at Hoover Dam.

Why Atlantium HOD UV?

HOD UV delivers an environmentally friendly, non-chemical disinfection to minimize the risk of mussel fouling by preventing invasion and infestation. The technology is a proven biofouling control solution for invasive mussels in hydroelectric facilities with the ability to achieve 100% inactivation even under conditions with less than 50% UVT.

Facilities looking to address biofouling concerns from aquatic invasive species, such as mussels, are no longer limited to chemical-based disinfection approaches that have detrimental effects to the environment. Unlike chemical treatment, the HOD UV system employs a physical process for disinfection that causes delayed mortality of mussel larvae, achieving inhibition of quagga mussel veligers settlement and addressing biofouling concerns- all while keeping costs down.