Disinfection | Municipal | Lunenberg, Massachusetts, USA

Drinking Water Disinfection at Lunenberg, Massachusetts, USA Local Community

Local Community Drinking Water Disinfection

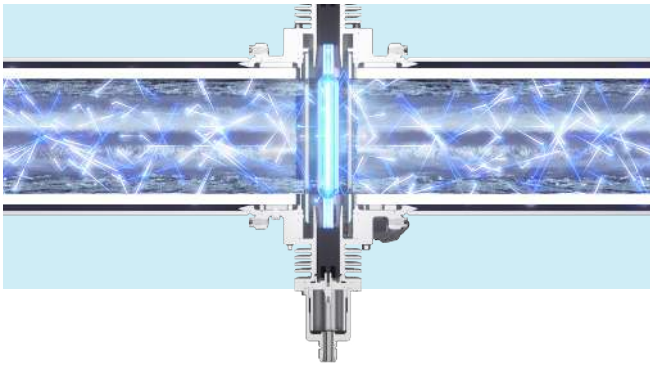
The Lunenburg Water District is a municipal water supplier that produces drinking water for a community of almost 6,000 people. In 2010 they acquired an additional well field, close to their existing wells, to meet the community's growing water requirements of 1,000 GPM. The new well triggered their interest in re-evaluating and improving their water disinfection solutions. A key objective was to install a system with the capacity to meet future demands (up to 1,500 GPM) as well as improve the water quality. The wells are located in an aquifer with a high vulnerability to contamination due to the absence of hydrogeological barriers such as clay that can prevent contaminant migration.

This obliged them to use a higher-than-usual dose of chlorine for disinfection, and the town's water authorities were receiving complaints from residents regarding the unpleasant taste and odor of their drinking water. Other considerations for the right water treatment system included economy of operation, reliability, ease of maintenance, and green sustainability.

The Solution

The solution that met all their objectives was an Atlantium RZ300-11 HOD™ (Hydro-Optic Disinfection) UV system. The HOD UV systems combine ultraviolet water disinfection technology with hydraulic and optic principles. The system features the unique Total Internal Reflection (TIR) technology that recycles UV light energy, ensures homogenous UV dose distribution, provides superior power (kW) efficiency compared to traditional UV, and achieves unprecedented micro-organism inactivation.

The system, which was installed and ready for operation in January 2011, comprised of an in-line, single-lamp unit, 12" in diameter. Despite the small footprint, it is designed for a maximum flow of 1,500 GPM, and configured for variable outputs depending on flow and water quality.



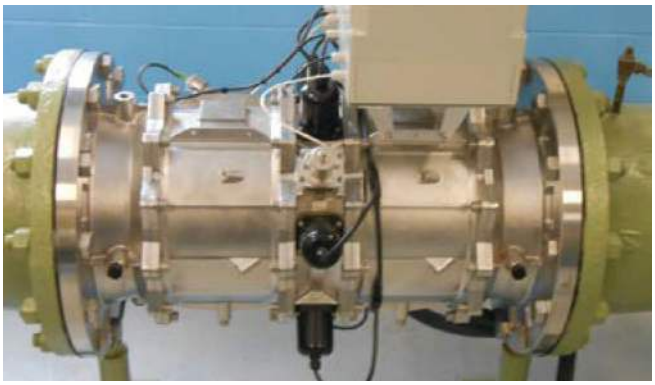
Results

The Atlantium unit met all of the Lunenburg Water District objectives and more, delivering on-spec performance. Atlantium's HOD UV easily inactivates the microorganisms that threaten public health safety including chlorine-resistant pseudomonas, cryptosporidium, and gardia; it also inactivates viruses and heat-resistant spores.

The modular system is designed with the capacity to meet future demands, even exceeding 1,500 GPM. The system's robust hardware and controls have a proven track record. It protects against DBP and TCR violations, is fully third-party validated, and eliminates the cause for complaints of chlorine taste and odor. Regulatory reports are issued with the push of a button.

> The Atlantium system has been operating 24/7 since January 2011. Every time I speak to Atlantium, they emphasize that we need to keep the unit clean. The automatic cleaning system is doing a great job. I'd have to give the operation and maintenance of the Atlantium system high marks.
>
> **Lunenberg Water District**

Monitor shows status of critical parameters in real-time, including actual dose being delivered.



Atlantium RZ300-11 unit equipped with automatic ultrasonic cleaners

Small-footprint, large capacity solution

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About us

For more than two decades, Atlantium Technologies has helped to ensure water safety with its innovative HOD™ (Hydro-Optic Disinfection) UV technology and novel approach to performance, monitoring, and control. Atlantium's superior, environmentally friendly water treatment solutions ensure stable, efficient, and dependable production.

With thousands of full-scale installations for leading brands in various industries globally, we're committed to consistently meeting our customers' water quality needs, ensuring pure results.

Pure Performance

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