

Enaqua News Release
January 2018

EN AQUA non-contact UV reactors approved by California Water Resources Control Board for the production of Title 22 recycled water

Vista, California

EN AQUA, A GRUNDFOS COMPANY, is proud and excited to announce that its non-contact UV reactor has received conditional acceptance from the California Water Resources Control Board's (CWRCB), Division of Drinking Water (DDW) - Recycled Water Committee (RWC).

Enaqua is the market leader in non-contact UV technology, a technology that utilizes proprietary Activated Fluoropolymer (AFP) Tubes in a reactor in such a manner that the UV lamps are never in contact with the liquid being disinfected, a key differentiator in the market from traditional UV disinfection systems.

Enaqua is the first company to successfully validate non-contact UV reactors per National Water Research Institute (NWRI 2012) guidelines following a very rigorous validation process which started with a revision to the NWRI 2012 protocol to suit a non-contact UV reactor. The revised proposal was submitted to DDW-RWC for approval prior to actual validation testing.

The validation testing protocol, testing and analysis was performed by an independent third party (CAROLLO ENGINEERS), and the validation report is the basis of the conditional approval by CWRCB.

Enaqua is the only non-contact UV system to obtain acceptance from DDW RWC by meeting the rigorous coliform and virus inactivation criteria outlined in Title 22 California Code of Regulations, California Department of Public Health's Recycled Water Regulations.

Arne Diering, CEO, Enaqua, says: "Achieving Title 22 approval is a defining milestone for Enaqua, based out of Vista, CA. Municipalities and other interested clients looking to upgrade their disinfection systems in Enaqua's home state and the rest of the country can now evaluate and select Enaqua's unique non-contact UV systems with confidence and take advantage of the anti-scaling, anti-fouling properties of the AFP Tubes, energy efficiency, and lowest O&M costs among competing UV disinfection systems in the market".

The validation testing of the Enaqua Enlight Non-Contact UV system was conducted by Carollo Engineers in accordance with the Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse (National Water Research Institute [NWRI]/American Water Works Association Research Foundation [AwwaRF], August 2012) and the Uniform Protocol for Wastewater UV Validation Applications (International Ultraviolet Association [IUVA], 2011).

Testing was performed in 2015 with MS2 and T1 bacteriophage with rigorous and stringent testing which took place in four phases over a series of flow, UVT, and operational configurations. Carollo Engineers also performed a spot check bioassay in accordance with NWRI 2012 guidelines to validate the end of lamp life testing and fouling factor testing for the Enlight Non-Contact UV system. Enaqua is the only UV

manufacturer who successfully achieved this, and tested and published it. Carollo Engineers conducted all testing, analyzed the test data, and developed the performance models. All microbiology services were conducted by GAP Laboratories, Canada. This was all possible through great team effort and high commitment from all participants (Carollo and Enaqua)

ABOUT ENAQUA:

Enaqua is a Vista (San Diego), California-based Grundfos Company that provides water treatment solutions for municipal and industrial customers. Enaqua's dedication to provide the most innovative and best available technology has put Enaqua at the forefront of the water and wastewater industry. Our vision is to keep doing what we do and provide our customers with "Safe Water, Simplified."

For more information, visit: www.enaqua.com

ABOUT GRUNDFOS:

Enaqua is part of the Grundfos Group – the world’s largest pump manufacturer.

Grundfos is a global leader in advanced pump solutions and a trendsetter in water technology contributing to global sustainability by pioneering technologies that improve quality of life for people and care for the planet. With an annual production of more than 16 million pump units and more than 83 companies in 56 countries, Grundfos offers a full range of modular, energy-efficient and intelligent products and services for applications within buildings, industries and water.

Grundfos North America employs 1,200 people in 12 key locations.

For more information, visit: www.grundfos.us or follow Grundfos on Facebook.

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Enaqua Enlight Non-Contact UV system