IUVA Task Force for the Development of UV-C LED Validation Guidelines for Water Treatment

Reporting to IUVA Technical Committee

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Background and purpose
The development of UV-C Light Emitting Diodes (LEDs) in the early 2000s has resulted in their use for UV water disinfection products that have traditionally employed UV gas discharge light sources. However, UV-C LED devices have different specifications and characteristics that have an impact on the design, validation and operation of such products. Current industry guidelines, standards and procedures do not account for these differences.

The IUVA Board recently approved the formation of a Task Force that has specific knowledge and experience related to the subject matter that will be used to provide global guidance for the validation of UV-C LED products, in accordance with the stated aims of the IUVA.

Process and administration
The Task Force will work together to produce the stated deliverable, with each member contributing within the scope of their expertise. Regular phone/Skype meetings will be held to coordinate activities. The IUVA Technical Committee will review all deliverables prior to publication. Karl Linden will act as IUVA Technical Committee liaison.

Deliverable and timing
The Task Force will deliver a document that includes technology background, best practices, considerations and references to collectively serve as a guideline on the validation of UV-C LED water treatment products. Topics covered are expected to include wavelengths, test organisms, water matrices and intensity monitoring.

This document will aim to serve as a resource to regulators, testing facilities, manufacturers, process designers, students, end users and other interested parties.

It is expected that the first draft will be available for review at the IUVA World Congress in February 2019.