



June 25, 2012

CULLIGAN DOOR COUNTY  
SERVICE  
JEFF TEBON  
63 E. OAK  
STURGEON BAY WI 54235

Re: Description: WATER TREATMENT DEVICE - SITE SPECIFIC/COMMERCIAL  
Manufacturer: CULLIGAN DOOR COUNTY  
Product Name: POE/UVA  
Model Number(s): HORSESHOE BAY VILLAGE POOL ROOM  
(trans. I.D. 2014666)  
Product File No: 20120245

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of June 2017.

This approval is contingent upon compliance with the following stipulation(s):

- Prior to signing off on the final onsite inspection, the Plumbing Consultant shall be provided with a signed copy of an accepted petition for variance from the State of Wisconsin Department of Health Services (WDHS). The petition for variance is required because the water supply serving this pool does not conform to WDNR 811/812 requirements due to a demonstrated history of positive coliform detects. WDHS 172.16 (1) and 172.19 (2) require the pool fill water conform to NR 811/812.

Here is the contact information provided to us for pertinent WDHS staff:

1. [amy.pach@dhs.wisconsin.gov](mailto:amy.pach@dhs.wisconsin.gov) 920-360-4301
2. [hsingyi.hsieh@dhs.wisconsin.gov](mailto:hsingyi.hsieh@dhs.wisconsin.gov) 920-224-4754
3. [chris.hinz@dhs.wisconsin.gov](mailto:chris.hinz@dhs.wisconsin.gov) 608-469-5914

This information was requested from the submitter on January 24, 2012. On May 1, 2012 we received a fax copy of the variance application. This variance application incorrectly identified the issue as softening of the pool fill water, and the application itself doesn't constitute an accepted DHS petition for variance. The primary point of the petition for variance should be to allow the use of pool fill water that does not conform to NR 811/812.

- This product has undergone sufficient testing to document the product's ability to reduce only those contaminants and/or substances as specified in this approval letter when the product is installed and maintained in strict accordance with the manufacturer's published instructions.
- Where the Department of Natural Resources (DNR) has jurisdiction, a written approval may be required prior to installation of this product in a water supply system to reduce the concentration of a contaminant that exceeds the primary drinking water standards contained in ch. NR 809, Wis. Admin. Code, the enforcement standards contained in ch. NR 140, Wis. Admin. Code, or for a water supply system that is subject to a written advisory opinion by the DNR. For more information contact the DNR Section of Private Water Systems, P.O. Box 7921, Madison, WI 53707, telephone (608) 267-9787.

- These devices must be installed with a 254 nanometer wavelength narrow band ultra violet monitor. The monitor must energize the normally closed inlet solenoid at a minimum ultra violet dosage of 40,000 microwatt-seconds per square centimeter (40 millijoules) at a wavelength of 254 nanometers. The presence of this type of monitor requires the UV device be mounted in the vertical position.
- These devices must be installed with automatic fixed flow rate controls that prevent flow above the manufacturer's maximum rated flow over the operating pressure range recommended by the manufacturer. The flow controls must be installed on the outlets of these devices.
- The normally open solenoid valves must be installed on the inlets of these devices.
- If this approved device is modified or additional assertions of function or performance are made, then this approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.
- This installation must undergo a final inspection prior to the device being put into service. The Plumbing Consultant having jurisdiction in this area is Tom Braun. Mr. Braun can be contacted via the following:

Phone: 715-340-5387  
E-mail: Thomas.braun@wi.gov

When the final inspection has been completed, this department will notify the Wisconsin Department of Natural Resources (WDNR). The WDNR will then monitor the performance of the device(s) to its satisfaction. A suggested frequency and overall duration of monitoring is provided elsewhere in this letter.

If these devices are installed and put in service prior to obtaining a final inspection, then any pertinent approval for the site specific device is immediately rendered null and void and the device may be ordered removed.

- The Class A UV device being installed, the Viqua Pro 20, is approved under DSPS product file number 20100329. The approval letter can be viewed at:

<http://dsps.wi.gov/sb/docs/sb-ppalopp/wtd/20100329.pdf>

All stipulations displayed in the approval letter for product file number 20100329 must be adhered to. Additionally, the influent water to the UV device must conform to pretreatment requirements contained in the guidance document entitled "DNR Criteria for Ultraviolet (UV) Water Treatment Systems for Private and Non-Community Public Water Supplies to Control Microbiological Contamination - Revised September, 2004."

This Class A system conforms to NSF Standard 55 for the disinfection of microbiologically contaminated water that meets all other public health standards. These systems are not intended for the treatment of water that has an obvious contamination source (i.e. raw sewage), nor are these systems intended to convert wastewater to microbiologically safe drinking water. These systems are intended for installation on optically clear water (not colored, cloudy, or turbid water).

- The suggested monitoring interval for this installation is quarterly during the season when the pool/pool room is accessible to patrons. The following tests/verifications should be performed:
  1. fecal coliform;
  2. verify UV lamp output and effective service life. The lamp must be replaced every 12 months.
  3. verify that adenovirus is not a concern on this water supply. If it is, then supplemental chlorine based disinfection may be required.

- If the treated water is used for consumptive purposes prior to passing the final inspection, then this approval may be rendered null and void and the devices ordered removed. The Plumbing Consultant shall provide a written indication of the results of the final inspection to the system owner.
- When the final inspection has been passed, the Plumbing Consultant will notify the Wisconsin Department of Natural Resources (WDNR) Field Staff having authority over the well. The WDNR will then monitor the quality of the treated water to its satisfaction. Monitoring advice, which the WDNR is free to accept or reject, is provided elsewhere in this letter. The WDNR Field Staff having authority over this well is Laurel Braatz. Ms. Braatz can be contacted via the following:

Phone: 920-746-2872

E-mail: [laurel.braatz@wisconsin.gov](mailto:laurel.braatz@wisconsin.gov)

**HEALTH EFFECTING BIOLOGICAL CONTAMINANT REDUCTION CAPABILITIES**  
**TRANSACTION I.D. 2014666**  
**TABLE 1 OF 1**

**Flow Rate:** Pro 20 = 75.7 lpm (20 gpm)

**Lamp Replacement Interval:** 12 months (max.)

Tested Contaminant	Influent Challenge (PFU/ml) <sup>2</sup>
MS2 Bacteriophage <sup>1</sup>	≥ 5.0 x 10 <sup>4</sup>

Other Conditions: the contaminant reduction performance capabilities displayed for Table 1 of 1 were verified by testing conducted in accordance with NSF *International* Standard 55. To qualify for Class A performance, the device must reduce the influent challenge concentrations by an amount ≥ that achieved using a standard and calibrated UV dosage of 40 mJ.

<sup>1</sup> = ATCC 15597-B

<sup>2</sup> = plaque forming units per milliliter

≥ = greater than or equal to

Based on testing data submitted to and reviewed by the department, this approval recognizes that this plumbing product will reduce the concentration of contaminants as specified on pages 1 through 3 of this letter.

This device was tested under controlled laboratory, or field, conditions. The actual performance of this device for a specific end use installation will vary from the tested conditions based on local factors such as water pressure, water temperature and water chemistry.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Glen W. Schlueter  
Engineering Consultant  
Safety and Buildings Division  
Department of Safety and Professional Services  
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(608) 267-9566 Fax  
glen.schlueter@wi.gov Email  
7:30AM - 4:30PM CT Work Hours  
GWS:gws