



March 21<sup>st</sup>, 2011

ZUVO WATER  
RAY BROWN  
404 VILLA  
MOUNTAIN VIEW CA 94041

Re: Description: WATER TREATMENT DEVICE- ACTIVATED CARBON  
Manufacturer: ZUVO WATER  
Product Name: ZUVO WATER PURATOR (POU)  
Model Number(s): UC-3 USING THE PBFA-01-01R CARTRIDGE AND 1BNA-01-02R UV LAMP (POU)  
Product File No: 20110063

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters Comm 82 through 84, 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 March 2016.

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

- 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.
- 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.
- These devices will only reduce the concentration of cysts/oocysts at water outlets that are served by the devices. Therefore, using point-of-use devices such as these will not protect all routes of potential exposure. Potentially hazardous exposures to cysts/oocysts will remain possible at unprotected outlets.

The presence of cysts/oocysts strongly suggests that other pathogens (e.g. bacteria, virus) may also be present.

If, by way of reputable water analyses, a water supply is known to contain cysts/oocysts, then all the water entering the residence must be treated at the point-of-entry, using an approved water treatment device, to address all potential routes of exposure thereby providing a biologically safe water supply.

- If the treatment components of this device (e.g. replacement cartridge) are replaced with anything other than those originally approved for use with this device, then this approval shall immediately be considered null and void.
- This device must be plugged into a GFCI electrical outlet.

- This device is approved for the supplemental bactericidal treatment of disinfected public drinking water or other drinking water that has been tested and deemed acceptable for human consumption by the state or local health authority having jurisdiction. This device is designed to reduce naturally occurring nonpathogenic nuisance microorganisms only. This device is not intended for the disinfection of microbiologically unsafe water and may not claim microbiological health effects claims.

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.

**AESTHETIC CONTAMINANT REDUCTION CAPABILITIES**  
**PRODUCT FILE NUMBER 20110063**  
**TABLE 1 OF 4**

**Flow Rate:** 1.9 Liters per minute (lpm) [0.5 gallon per minute (gpm)]  
**Capacity:** 1,893 liters (l) [500 gallons (gals.)] for free chlorine reduction. For particulate reduction, the capacity is dependent on the type and quantity of particulate matter present in the untreated water; the need for maintenance may be indicated by a significant decrease in flow rate.

Tested Contaminant	Influent Challenge (mg/l) <sup>* 1</sup>
Chlorine (free)	2.0 ± 10%
Particulates (0.5 to < 1.0 µm)	≥ 1.0 x 10 <sup>4</sup> #/ml

**Other Conditions:** the contaminant reduction performance capabilities displayed for Table 4 of 4 were verified by testing conducted in accordance with NSF *International* Standard 42. To qualify for free chlorine reduction, the device must reduce the influent challenge concentrations by ≥ 50%. To qualify for particulate reduction, Class I, the device must reduce the influent challenge concentrations by ≥ 85%.

1 = milligrams per liter (mg/l) are equivalent to parts per million (ppm)      \* = unless otherwise specified  
 #/ml = particles per milliliter      < = less than  
 ≥ = greater than or equal to      µm = micrometers  
 ± = plus or minus

**HEALTH EFFECTING INORGANIC CONTAMINANT REDUCTION CAPABILITIES**  
**PRODUCT FILE NUMBER 20110063**  
**TABLE 2 OF 4**

**Flow Rate:** 1.9 lpm (0.5 gpm)  
**Capacity:** 1,893 l (500 gals.)

Tested Contaminant	Influent Challenge (mg/l) <sup>1</sup>
Lead (Pb <sup>+2</sup> ) <sup>2</sup>	0.15 ± 10%

**Other Conditions:** the contaminant reduction performance capabilities displayed for Table 2 of 4 was verified by testing conducted in accordance with NSF *International* Standard 53. To qualify for Lead reduction, the device must reduce the influent challenge concentrations so that all effluent concentrations are ≤ 0.010 mg/l.

1 = milligrams per liter (mg/l) are equivalent to parts per million (ppm)      2 = metals are tested at pH 6.5 and pH 8.5  
 ≤ = less than or equal to      ± = plus or minus

**HEALTH EFFECTING BIOLOGICAL CONTAMINANT REDUCTION CAPABILITIES**  
**PRODUCT FILE NUMBER 20110063**  
**TABLE 3 OF 4**

**Flow Rate:** 1.9 lpm (0.5 gpm)  
**Capacity:** dependent on the type and quantity of particulate matter present in the influent water; the need for maintenance may be indicated by a significant decrease in flow rate.

Tested Contaminant	Influent Challenge (#/ml)
Cysts/Oocysts <sup>1</sup>	≥ 5.0 x 10 <sup>4</sup>

**Other Conditions:** the contaminant reduction performance capabilities displayed for Table 3 of 4 were verified by testing conducted in accordance with NSF *International* Standard 53. To qualify for cyst/oocyst reduction, the device must reduce the influent challenge concentrations by ≥ 99.95% at each sample point.

1 = the specific organisms covered under this testing protocol include cryptosporidium parvum, entamoeba histolytica, giardia lamblia and toxoplasma gondii  
 #/ml = particles per milliliter      ≥ = greater than or equal to

**AESTHETIC BIOLOGICAL CONTAMINANT REDUCTION CAPABILITIES  
PRODUCT FILE NUMBER 20110063  
TABLE 4 OF 4**

**Flow Rate:** 1.9 lpm (0.5 gpm)

**Lamp Replacement Interval:** 8,000 hours, 10,000 on/off cycles, which ever occurs first.

Tested Contaminant	Influent Challenge (cells/ml)
Saccharomyces cerevisiae (ATCC# 18824)	$1.0 \times 10^4$ to $1.0 \times 10^5$

**Other Conditions:** the contaminant reduction performance capabilities displayed for Table 4 of 4 were verified by testing conducted in accordance with NSF *International* Standard 55. To qualify for NSF Standard 55, Class B designation, the geometric mean of all *S. cerevisiae* counts on influent samples minus the geometric mean of counts on all effluent samples shall demonstrate a log reduction  $\geq$  the reduction caused by a U.V. dose of 16 mJ was achieved, as calibrated in accordance with annex B of NSF Standard 55. This device is approved for the supplemental bactericidal treatment of either treated and disinfected public drinking water, or other drinking water that has been tested and deemed acceptable for human consumption by the state or local health agency having jurisdiction. This device is designed to reduce naturally occurring non-pathogenic or nuisance bacteria only. This device is not intended for the treatment of microbiologically unsafe water or water of unknown quality. This device will provide a U.V. dose of 16 mJ at 70% of the U.V. lamps normal output.

**cells/ml** = particles per milliliter  
**mJ** = millijoules

$\geq$  = greater than or equal to

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 that may result from its use.

Sincerely,

Glen W. Schlueter  
Engineering Consultant-Plumbing Product Reviewer  
Bureau of Integrated Services  
Safety and Buildings Division  
Department of Commerce  
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