



Jim Doyle, Governor
Cory L. Nettles, Secretary

September 14, 2004

CLEAR FLOW CORPORATION
SALES & MARKETING
WILLIAM D. WARREN
3695 TOLLAND RD
SHAKER HEIGHTS OH 44122

CLEARFLOW CORP.
HEADQUARTERS
GORDON LEWIS
10 KEARNEY RD
NEEDHAM MA 02494

Re: Description: WATER TREATMENT DEVICE-ACTIVATED CARBON
Manufacturer: CLEARFLOW CORP.
Product Name: CLEAR FLOW BATHROOM FAUCET FILTER
Model Number(s): BFF-31, BFF-32, BFF-51 AND BFF-52
Product File No: 20040413

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 September 2009.

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 manufacturers published instructions.
- For buildings not served by a municipal water supply, Department of Natural Resources (DNR) 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) 266-3415.
- If these approved devices are 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.

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

**AESTHETIC CONTAMINANT REDUCTION CAPABILITIES
 PRODUCT FILE NUMBER 20040413
 TABLE 1 OF 2**

Flow Rate: 2.3 liters (l) [0.6 gallon per minute (gpm)]
Capacity: BFF-31 and BFF-32 = 114 liters (l) [30 gallons (gals.)] for free chlorine reduction.
 BFF-51 and BFF-52 = 189 l (50 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)*, 1
Chlorine (free)	2.0 ± 10%
Particulates (0.5 to < 1.0 µm)	≥ 1.0 x 10 ⁴ #/ml

Other Conditions: the contaminant reduction performance capabilities displayed for Table 1 of 2 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%; meeting the free chlorine reduction requirements also qualifies the device for the reduction of aesthetic, organic, taste and odor reduction (e.g. geosmin, methylisoborneol); this does not include hydrogen sulfide. 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) < = less than
 ≥ = greater than or equal to µm = micrometers
 ± = plus or minus * = unless otherwise specified
 #/ml = particles per milliliter

**HEALTH EFFECTING INORGANIC CONTAMINANT REDUCTION CAPABILITIES
 PRODUCT FILE NUMBER 20040413
 TABLE 2 OF 2**

Flow Rate: 2.3 l (0.6 gpm)
Capacity: BFF-31 and BFF-32 = 114 l (30 gals.) for lead and mercury reduction.
 BFF-51 and BFF-52 = 189 l (50 gals.) for lead and mercury reduction.
 For asbestos 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 Concentration (mg/l) ¹
Asbestos fibers (> 10 µm in length)	1.0 x 10 ⁷ to 1.0 x 10 ⁸ F/l
Lead (Pb ⁺²) ²	0.15 ± 10%
Mercury (Hg ⁺²) ²	0.006 ± 10%

Other Conditions: the contaminant reduction performance capabilities displayed for Table 2 of 2 were verified by testing conducted in accordance with NSF *International* Standard 53. To qualify for asbestos reduction, the device must reduce the influent challenge concentrations by ≥ 99%. To qualify for lead reduction, the device must reduce the influent challenge concentrations such that all effluent concentrations are ≤ 0.010 mg/l. To qualify for mercury reduction, the device must reduce the influent challenge concentrations such that all effluent concentrations are ≤ 0.002 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
 * = unless otherwise specified ≤ = less than or equal to
 ± = plus or minus F/l = fibers per liter
 > = greater than

Clear Flow Corporation
September 14, 2004
Page 3 of 3
Product File No.: 20040413

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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GWS:gws