SAFETY AND BUILDINGS DIVISION
Plumbing Product Review
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Wisconsin
Department of Commerce

Jim Doyle, Governor
Mary P. Burke, Secretary

September 22, 2006

PENTAIR
PLYMOUTH PRODUCTS
ANNE SCHLEINZ
502 INDIANA AVE.
SHEBOYGAN WI 53081

GENERAL ELECTRIC COMPANY
GE APPLIANCES
SHAWN STOVER
APPLIANCE PARK AP35-1312
LOUISVILLE KY 40225

Re: Description: WATER TREATMENT DEVICE-ACTIVATED CARBON
Manufacturer: GENERAL ELECTRIC COMPANY
Product Name: SMARTWATER
Model Number(s): GXFM03C USING THE FXMLC CARTRIDGE
Product File No: 20050896

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 2011.

This approval supersedes the approval issued on November 1, 2000 under product file number 20002052.

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.

- 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) 266-3415.

- 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 volatile organic chemicals at water outlets that are served by the devices. There are dermal (skin) absorption and inhalation exposure risks associated with volatile organic chemicals. Therefore, using point-of-use devices such as these will not protect all routes of potential exposure. Potentially hazardous exposures to volatile organic chemicals will remain possible at unprotected outlets, particularly hot water outlets (e.g. bathing, showering, clothes washing or dish washing).

  If, by way of reputable water analyses, a water supply is known to contain unsafe levels of volatile organic chemicals, 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.

- 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.

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 20050896
TABLE 1 OF 3

Flow Rate: 2.3 liters per minute (lpm) [0.6 gallon per minute (gpm)]
Capacity: 757.1 liters (l) [200 gallons (gals.)] for free chlorine reduction. For particulate reduction, the capacity is 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 (mg/l)*, 1
Chlorine (free)	2.0 ± 10%
Particulates (0.5μm to < 1.0μm)	≥ 10,000 #/ml

Other Conditions: the contaminant reduction performance capabilities displayed for Table 1 of 3 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 nominal 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
± = plus or minus
< = less than
≥ = greater than or equal to
#/ml = particles per milliliter

HEALTH EFFECTING BIOLOGICAL CONTAMINANT REDUCTION CAPABILITIES
PRODUCT FILE NUMBER 20050896
TABLE 2 OF 3

Flow Rate: 2.3 lpm (0.6 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[1]	≥ 5.0×10^4

Other Conditions: the contaminant reduction performance capabilities displayed for Table 2 of 3 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

HEALTH EFFECTING INORGANIC CONTAMINANT REDUCTION CAPABILITIES
PRODUCT FILE NUMBER 20050896
TABLE 3 OF 3

Flow Rate: 2.3 lpm (0.6 gpm)
Capacity: 757.1 l (200 gals.)

Tested Contaminant	Influent Challenge (mg/L)[1]
Lead (Pb^{+2}) [2]	0.15 ± 10%

Other Conditions: the contaminant reduction performance capabilities displayed for Table 3 of 3 were 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 ≤ 0.015 mg/L.

1 = milligrams per liter (mg/l) are equivalent to parts per million (ppm)
± = plus or minus
2 = metals are tested at pH 6.5 and pH 8.5
≤ = less 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 which may result from its use.

Sincerely,

Glen W. Schlueter
Engineering Consultant-Plumbing Product Reviewer
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Safety and Buildings Division
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GWS:gws