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Department of Commerce

SAFETY AND BUILDINGS DIVISION
Plumbing Product Review
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TTY: Contact Through Relay

Jim Doyle, Governor
Richard J. Leinenkugel, Secretary

June 22, 2009

NORTH AMERICAN AQUA, INC.
OLAFUR OLAFSSON
PO BOX 130
VANDALIA, MI 49095

Re: Description: WATER TREATMENT DEVICE- ACTIVATED CARBON
Manufacturer: NORTH AMERICAN AQUA, INC.
Product Name: EPA CARBON FILTRATION SYSTEMS (POE)
Model Number(s): WHS-200EPA AND WHS-400EPA (POE)
Product File No: 20090192

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 June 2014.

This approval supersedes the approval issued on under product file number 20090192.

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 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.

- The WHS-200EPA device must have a flow control installed upstream of the device such that the flow rate through the device cannot exceed 16.3 liters per minute (lpm) [4.3 gallons per minute (gpm)].

  The WHS-400EPA device must have a flow control installed upstream of the device such that the flow rate through the device cannot exceed 27.6 lpm (7.3 gpm).

- The cumulative flow volume through these devices must be metered. The meter must be reasonably tamper proof and not able to be reset.

- If these devices are installed for the purposes of 2,4-dinitrotoluene and/or 2,6-dinitrotoluene reduction, then when the capacities for 2,4-dinitrotoluene or 2,6-dinitrotoluene, as defined in this letter, have been reached both the primary and secondary carbon tanks must be replaced.

HEALTH EFFECTING ORGANIC CONTAMINANT REDUCTION CAPABILITIES
PRODUCT FILE NUMBER 20090192
TABLE 1 OF 1

Flow Rates: WHS-200EPA = 16.3 liters per minute (Lpm) [4.3 gallons per minute (gpm)]
WHS-400EPA = 27.6 lpm (7.3 gpm)

Capacities: WHS-200EPA = 181,904 Liters (L) [48,055 gallons (gals.)] ‡, ♦
WHS-400EPA = 489,742 L (129,379 gals.) ‡, ♦

Tested Contaminant	Influent Challenge (µg/L)[1]
Alachlor	50
Atrazine	100
Benzene ‡	2,542 ‡
Carbofuran	190
Carbon tetrachloride	78
Chlorobenzene	77
Chloropicrin	15
2,4-D	110
Dibromochloropropane (DBCP)	52
o-Dichlorobenzene	80
p-Dichlorobenzene	40
1,2-Dichloroethane	88
1,1-Dichloroethylene	83
cis-1,2-Dichloroethylene	170
trans-1,2-Dichloroethylene	86
1,2-Dichloropropane	80
cis-1,3-Dichloropropylene	79
2,4-Dinitrotoluene ♦	0.24♦
2,6-Dinitrotoluene ♦	1.6♦
Dinoseb	170
Endrin	53
Ethylbenzene ‡	314 ‡
Ethylene dibromide (EDB)	44
Haloacetonitriles (HAN):	-
Bromochloroacetonitrile	22
Dibromoacetonitrile	24
Dichloroacetonitrile	9.6
Trichloroacetonitrile	15
Haloketones (HK):	-
1,1-Dichloro-2-propanone	7.2
1,1,1-Trichloro-2-propanone	8.2
Heptachlor	80
Heptachlor epoxide	10.7
Hexachlorobutadiene	44
Hexachlorocyclopentadiene	60
Lindane	55
Methoxychlor	50
Pentachlorophenol	96
Simazine	120
Styrene	150
1,1,2,2-Tetrachloroethane	81

HEALTH EFFECTING ORGANIC CONTAMINANT REDUCTION CAPABILITIES
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TABLE 1 OF 1 (continued from previous page)

Tested Contaminant	Influent Challenge (µg/L)[1]
Tetrachloroethylene	81
Toluene [t]	2,059 [t]
2,4,5-TP (silvex)	270
Tribromoacetic acid	42
1,2,4-Trichlorobenzene	160
1,1,1-Trichloroethane	84
1,1,2-Trichloroethane	150
Trichloroethylene	180
Trihalomethanes **(chloroform surrogate)**	300
Xylenes (total) [t]	721 [t]

Other Conditions: the contaminant reduction performance capabilities displayed for Table 1 of 1 were verified by testing conducted in accordance with NSF *International* Standard 53. To qualify for the reduction of the organic contaminants listed above, the device must reduce the influent challenge concentration of chloroform at 300 µg/l ± 10% at each sample point by a minimum of 95%. The data displayed in this table for benzene, ethylbenzene, toluene and total xylenes were not collected via the chloroform surrogate.

1 = micrograms per liter (µg/l) are equivalent to parts per billion (ppb)

t = tested independently of the chloroform surrogate using field data from a contaminated private well serving a residential water supply system. The capacity of the WHS 400 EPA model for these contaminants is 88,009 Liters (l) [23,250 gallons (gal.)], the capacity of the WHS 200 EPA model for these contaminants is 40,233 l (10,628 gal.).

♦ = tested independently of the chloroform surrogate using field data from a contaminated private well serving a residential water supply system. The capacity of the WHS 400 EPA model for these contaminants is 198,961 Liters (l) [52,560 gallons (gal.)], the capacity of the WHS 200 EPA model for these contaminants is 99,481 l (26,280 gal.).

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 sediment prefilters, comprised of either a #10 or #20 “Big Blue” filter housing and either one or two R50-BBS pleated polyester cartridges, all manufactured by Pentek, Sheboygan WI, are considered a component of these water treatment devices and are covered under this approval. The purpose of the sediment prefilters is to reduce the sediment loading on these devices; this is necessary because these devices are not backwashed.

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
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Safety and Buildings Division
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