

April 27th, 2011

CEC
DALE SCHLIEVE
312 COMRO STREET
RHINELANDER WI 54501-3772

BIRCHWOOD LODGE
BILLY HEATH
3966 MOAN LAKE ROAD
RHINELANDER WI 54501

Re: Description: SITE SPECIFIC WATER TREATMENT DEVICE
Manufacturer: BIRCHWOOD LODGE
Product Name: BIRCHWOOD LODGE (POE/NITRATE)
Model Number(s): BIRCHWOOD LODGE (POE/NITRATE)
(Transaction I.D. No. 1924776)
Product File No: 20110138

The specifications and/or plans for the installation of these point-of entry (POE) nitrate reduction devices has 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 April 2016.

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

- The point-of-entry (POE) nitrate reduction devices have 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.
- This installation must undergo a final inspection prior to the device being put into service. The Plumbing Consultant having jurisdiction in this area is Don Hough. Mr. Hough can be contacted via the following:

Phone: 715-558-2690
Fax: 608-283-7451
E-mail: donald.hough@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 suggested monitoring interval for this installation is quarterly. As a minimum, the following tests should be performed:

1. nitrate
2. nitrite

The samples should be collected at a time of day when the device is under stress and at a time most remote from the last regeneration cycle as possible. Because this device is being installed on a copper water supply system, concerns relating to decreased alkalinity and subsequent corrosion should be closely monitored. A low pH correction system is part of this plan.

- The anion exchange, nitrate reduction device being installed is approved under DComm product file number 20100292. The approval letter can be viewed at:

<http://commerce.wi.gov/sb/docs/sb-ppalopp/wtd/20100292.pdf>

All stipulations displayed in the approval letter for product file number 20100292 must be adhered to.

- The water distribution system shall be sized for a uniform pressure loss of 7 psig per 100 ft. of piping. The urinal is the controlling fixture.

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 2 of this letter.

NITRATE REDUCTION CAPABILITIES

Model Number	Salt 1 (lbs.)	Capacity 1 [†] (grains)	Salt 2 (lbs.)	Capacity 2 [†] (grains)	Salt 3 (lbs.)	Capacity 3 [†] (grains)	Max. Flow (gpm)
H125-NRS-15 [‡]	7.5	12,600	15.0	15,300	22.5	16,500	6

♦ = capacities listed at 25% SO₄²⁻
 1 grain = 64.79891 mg

‡ = Triplex Demand Recall
 1 grain/gal. = 17.1 mg/l

* = Flow restrictors must be installed to prevent exceeding the flow rate displayed

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
 Bureau of Integrated Services
 Safety and Buildings Division
 Department of Commerce
 (608) 267-1401 **Phone**
 (608) 267-9566 **Fax**
 glen.schlueter@wi.gov **Email**
 8:00AM – 4:30PM CDT **Work Hours**
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