



July 10, 2012

TRINITY LUTHERAN CHURCH  
DEBRA BOND  
614 BADLANDS RD.  
HUDSON WI 54016-7610

MERLE'S WATER CONDITIONING  
JUSTIN REGNIER  
2200 HWY 36 EAST  
ST. PAUL MN 55109-2840

Re: Description: WATER TREATMENT DEVICE - SITE SPECIFIC/COMMERCIAL  
Manufacturer: MERLE'S WATER CONDITIONING  
Product Name: TRINITY LUTHERAN CHURCH - TRANS. I.D. 2099467  
Model Number(s): POE NITRATE REDUCTION - ANION EXCHANGE  
Product File No: 20120250

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, 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 July 2017.

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.
- 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: 715-634-4804  
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 used to treat water for consumptive purposes prior to obtaining a final inspection, then any pertinent approval for the site specific device may be rendered null and void and the device may be ordered removed.

When the final inspection has been passed, the Plumbing Consultant will notify the Wisconsin Department of Natural Resources (WDNR) Field Staff having authority over the well. The WDNR will then monitor the quality of the treated water to its satisfaction. Monitoring advice, which the WDNR is free to accept or reject, is provided elsewhere in this letter. The WDNR Field Staff having authority over this well is Lacey Hillman. Ms. Hillman can be contacted via the following:

Phone: 715-684-2914 ext. 137  
 E-mail: [lacey.hillman@wisconsin.gov](mailto:lacey.hillman@wisconsin.gov)

- The suggested monitoring interval for this installation is quarterly. As a minimum, the following tests should be performed:

1. nitrate
2. nitrite
3. alkalinity

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 reportedly being installed on a copper water supply system, concerns relating to decreased alkalinity and subsequent corrosion are applicable. Because of this, a means to add alkalinity/buffering capacity to the treated water must be installed downstream of the anion exchange units. There are a variety of ways to achieve this, a common approach is the chemical injection of sodium carbonate (Na<sub>2</sub>CO<sub>3</sub>), referred to informally as soda ash.

- The anion exchange, nitrate reduction device being installed is approved under DSPS product file number 20100292. The specific model number being installed at this site is the H-125-128 Demand Recall Triplex. The H-125-128 triplex is comprised of three H-125-NRS-40 models plumbed in parallel. The three treatment tanks come on/off line in response to water demand up to a maximum flow rate of 48 gpm (i.e. 16 gpm max. per tank):

**NITRATE/NITRITE 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-40	20.0	33,600	40.0	40,800	60.0	44,000	16

\* = A flow restrictor must be installed to prevent exceeding the flow rates displayed

♦ = capacities listed at 25% SO<sub>4</sub><sup>2-</sup>

All stipulations displayed in the approval letter for product file number 20100292 must be adhered to. The complete approval letter can be viewed at:

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

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  
 Safety and Buildings Division  
 Department of Safety and Professional Services  
 (608) 267-1401 Phone  
 (608) 267-9566 Fax  
 glen.schlueter@wi.gov Email  
 7:30AM - 4:30PM CT Work Hours  
 GWS:gws