



Jim Doyle, Governor  
Mary P. Burke, Secretary

May 16, 2007

KRISTAR ENTERPRISES, INC.  
SKIP SHORT  
4020 RIVERCLUB DR  
CUMMING GA 30041

KRISTAR ENTERPRISES, INC.  
SKIP SHORT  
  
PO BOX 6419  
SANTA ROSA CA 95046

Re: Description: STORMWATER TREATMENT DEVICE  
Manufacturer: KRISTAR ENTERPRISES, INC.  
Product Name: FLOGARD DUAL-VORTEX HYDRODYNAMIC SEPARATOR  
Model Number(s): DVS-48  
Product File No: 20060465

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 May 2012.

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

- The review undertaken by Commerce staff does not include review and/or approval of this submittal as meeting DNR specifications for ch. NR 151.
- When this product is installed, the installation must be in accordance with the manufacturer's printed design installation instructions, ch. Comm 82, plan approval under s. Comm 82.20, and any product approval stipulations. When there is a conflict between manufacturer's installation instructions and plan approval conditions or product approval stipulations, the plan approval conditions or product approval stipulations will take precedence.
- This product is expected to provide treatment as specified in Tables 1 and 2, entitled Stormwater Treatment for KriStar FloGard DVS-48.

Table 1  
Stormwater Treatment for KriStar FloGard DVS-48 with  
US Silica OK-110 for Suspended Solid

Percent of Maximum Hydraulic Capacity	Maximum Flow in cu. ft./sec.	Influent Quality in mg/L	Effluent Quality in mg/L	Percent Efficiency
125.0	1.248	200	125.2	38.4
99.6	0.996	200	105.7	48.7
74.9	0.749	200	74.5	62.4
50.1	0.499	200	45.8	76.9
25.2	0.252	200	8.6	95.9
10.0	0.100	200	0.7	99.6

Table 2  
Stormwater Treatment for KriStar FloGard DVS-48 with  
US Silica F-110 for Suspended Solid

Maximum Flow in cu. ft./sec.	Influent Quality in mg/L	Effluent Quality in mg/L	Percent Efficiency
0.41	150.0	27.3	81.8
0.79	156.0	70.2	51.1
1.21	138.0	115.8	24.8

- A copy of the manufacturer's installation instructions must be given to the property owner, installer and submitted along with other information required by the governing agency for the installation.
- Inspection, maintenance and cleaning of this product must be performed at intervals specified by the manufacturer in KriStar "General Specifications for Maintenance of FloGard® Dual-vortex Hydrodynamic Separator, dated 11/04" that requires service prior to and after snow season, or in accordance with plan approval, or s. Comm 82.21, whichever is more restrictive.
- U.S. Silica sand F-110 has the following sieve analyses:

SIEVE SIZE	% RETAINED
50	<1
70	4
100	18
140	44
200	25
270	8
PAN	<1

- U.S. Silica sand OK-110 has the following sieve analyses:

SIEVE SIZE	% RETAINED
70	0.0
100	1.0
120	15.0
140	48.0
170	24.2
200	9.7
270	1.9
PAN	0.2

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,

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