



August 27, 2012

BIO-MICROBICS, INC.  
ALLISON BLODIG  
8450 COLE PKWY.  
SHAWNEE KS 66227

Re: Description: SEWAGE TREATMENT APPARATUS (Tier 3- downsizing & vertical separation credit)  
Manufacturer: BIO-MICROBICS, INC.  
Product Name: **HighStrength FAST®** (consolidate 5 files)--20080175, 176, 177, 178, 179)  
Model Number(s): **1.0, 1.5, 3.0, 4.5, and 9.0**  
Description: Submerged Fixed Film Aerated Treatment System using attached and suspended growth

[FOR PERFORMANCE AND DESIGN PARAMETERS, OR MAINTENANCE, INSPECTION AND PUMPING REQUIREMENTS, SEE ATTACHMENT D. FOR MANUFACTURER'S MANUALS, SEE ATTACHMENTS A, B & C.]

**Product File No: 20120243**

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 August 2013.**

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

- Installation and servicing of this product must be in accordance with the manufacturer's instructions. A copy of the manufacturer's installation and servicing instructions must be given to the owner of the system.
- When this product receives wastewater from dwellings, it will produce an effluent quality with a maximum monthly average value for BOD5 of less than or equal to 30 mg/L, TSS of less than or equal to 30 mg/L TSS and F.O.G. of less than 30 mg/L and fecal coliform of less than or equal to 10,000 cfu/100mL.
- Based on testing data submitted and reviewed by the department, this approval recognizes that this plumbing product will reduce the concentration of Total Kjeldal Nitrogen (TKN) up to 70%.
- Any plan submitted to the department for a commercial system that includes a High Strength FAST® unit shall be accompanied by a letter from Bio-Microbics, Inc. assuring the design will meet required effluent quality.
- All commercial projects where a Bio-Microbics HighStrength FAST® unit is a component of the design, a letter of review from Bio-Microbics, Inc. assuring the design will meet effluent quality shall be included in the plan submittal.
- When dosing High Strength FAST ® units, a dosing schedule that delivers a maximum 1/24th (4.167%) of the design flow rate for the unit in any one hour period is suggested. This schedule also applies to any fraction of an hour.

- AS OF MARCH 1, 2009 ALL ELECTRICAL CONNECTIONS FOR PRIVATE SEWAGE SYSTEMS MUST COMPLY WITH S. SPS 316.300 (formerly S. COMM 16.300), WIRING METHODS.
- This product must be installed in state-approved sewage treatment tanks approved this department for use with this product.
- For department approved tanks, see listing on-line at [http://dsps.wi.gov/php/sb-ppalopp/prodcode\\_result.php/STATS/SEWAGE\\_TREATMENT\\_APPARATUS\\_&\\_TANK\\_SYSTEM\\_\[SEE\\_STA\\_-\\_SEWAGE\\_TREATMENT\\_APPARATUS\\_\]](http://dsps.wi.gov/php/sb-ppalopp/prodcode_result.php/STATS/SEWAGE_TREATMENT_APPARATUS_&_TANK_SYSTEM_[SEE_STA_-_SEWAGE_TREATMENT_APPARATUS_])
- New public/commercial POWTS that may produce wastewater exceeding the limits of s. SPS 383.44(2) will fall into one of two groups – high-strength wastewater producing facilities or at-risk of producing high-strength wastewater. The Department has created a policy for addressing both the high-strength wastewater producers and at-risk occupancies mandating pre-treatment or management/monitoring plan, respectively.

**High-Strength Wastewater Producing Facilities** - For public/commercial buildings that have food preparation as a major part of their daily operation such as fast food and full service restaurants, dining halls, grocery stores with deli's and butcher shops, and similar facilities the department will presume that septic tank effluent will have the following strength unless data acceptable to the Department is provided: FOG – 200 mg/L; BOD5 – 1200 mg/L; TSS – 220 mg/L. Designs for these types of facilities must include measures to treat the wastewater to acceptable limits. This generally involves the use of pretreatment. **To assure a POWTS design does not exceed the effluent standards of the pre-treatment device, a letter or acknowledgment from the manufacturer to the designer concurring with the influent estimates and pre-treatment design must be submitted for each site-specific plan review.**

- Maximum depth of bury or lid-mounted unit cover—36 inches for lid-mounted cover units; for mounting the insert inside the approved tank, see tank/lid manufacturer's recommendations.
- Additional information is included as attachment(s) to this letter; see attachment A, B, C and D.

This approval supersedes the approval issued on various dates under product file number 20080175, 20080176, 20080177, 200801778 and 20080179.

This approval letter shall be incorporated with your previously approved plans and/or specifications approved under product file numbers 20080175, 20080176, 20080177, 200801778 and 20080179.

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,

Jean M. MacCubbin, CST  
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Attachments A,B,C,D