



February 2, 2010

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SUPERIOR ENVIRONMENTAL
TECHNOLOGIES
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Re: Description: SEWAGE TREATMENT APPARATUS (Tier 3- downsizing & vertical separation credit)
Manufacturer: SUPERIOR ENVIRONMENTAL TECHNOLOGIES
Product Name: PIRANA PREDATOR™ AEROBIC BACTERIAL GENERATOR (ABG)
Model Number(s): PIRANA PREDATOR™
[MAX. DWF 450 GPD DOMESTIC WASTEWATER; INSTALLED IN COMMERCE-APPROVED TANKS SIZED TO MEET DWF FOR 3 BEDROOMS OR LESS, OR BATHROOM WASTE FROM HIGH-STRENGTH FACILITIES WITH MAX. DAILY BOD5 OF 2.7 LBS.; INSTALLATION REQUIRES A 300-1000 GAL. CAPACITY TANK; SEE STIPULATION REGARDING MULTIPLE ARRAYS; L.L. RANGE 38 - 72 IN., RESPECTIVELY; THIS APPROVAL IS LIMITED TO USE & INSTALLATION IN NEW POWTS SYSTEM DESIGNS]
Product File No: 20080291

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 February 2015.**

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

- **This approval for the above-referenced PRODUCT FILE No. does not provide for the inclusion of this product in an existing failing POWTS; products to rejuvenate failing POWTS must have separate approval by COMMERCE for chemical or physical restoration (CPR). [s. COMM 83.53].**
- This product must be sized based on daily wastewater flow (gallons per day). The gallons per day value must be at least 150 gallons per day per bedroom.
- The maximum daily wastewater (DWF) flow which may discharge through this product is 450 gallons per day.
- 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.
- This product must be utilized in accordance with the manufacturer's printed installation instructions and this product approval. If there is a conflict between the manufacturer's installation instructions and the product approval, the product approval requirements will take precedence.
- A copy of this approval letter and the manufacturer's printed installation instructions must be supplied to the buyer of this product.

- The Pirana Predator™ must be installed in a tank or tanks that comply with the following:
 1. Tank volume of the compartment or tank which will house the treatment device must be at least 300 and no greater than 1000 gallons.
 2. The volume of the compartment or tank that does not house the treatment device must be at least 200 gallons and no greater than 1000 gallons.
 3. Liquid level of the compartment or tank which will house the treatment device must be at least 38 inches and no greater than 72 inches.
 3. Distance that the treatment device must be horizontally away from the tank inlet or the outlet of the first or second compartment or tank must be at least 6 inches and no greater than 36 inches.
 4. Liquid level of the compartment or tank that does not house the treatment device must be at least 38 inches and not greater than 72 inches.
 5. In tanks containing greater than two compartments, the above sizing requirements will refer only to the first and second compartments of such tanks.
 6. For tanks NOT meeting this criteria, a variance MAY be required prior to plan review and installation.
- **MULTIPLE DEVICES:** For domestic DWF greater than 3 bedrooms (450 gpd) and commercial establishments with the domestic strength wastewater, the Pirana Predator™ may be installed singly or in multiple arrays. For commercial establishments with DWF greater than 450 gpd and BOD5 loads of greater than 2.7 lbs./day, the Pirana Predator™ may be installed singly or in multiple arrays. For these installations the minimum and maximum tank compartment volume must be adhered to: for two devices, double the compartment or tank volumes; for 3 devices, triple the tank compartment or tank volume.
- **If the treatment components of this device (e.g., Pirana Blend™) are replaced with any substance (bacterial species, microbes, etc.) other than those originally approved for use with this device, then this approval shall immediately be considered null and void.**
- This device must include permanent labeling; identified by manufacturer, model and serial number, riveted to the body of the device.
- As per the manufacturer, the system is not designed for receiving adverse wastewater containing, but not limited to, the following: medications relating to chemotherapies and diabetes, high FOG levels, disinfectants, paints, strong cleaning agents, water treatment devices using chlorine or sodium permanganate, and non-biodegradable items.
- Because many Commerce approved products are readily available for sale on the internet; it is important that buyers in Wisconsin are aware of approval stipulations for Commerce-approved products.

For example, in the state of Wisconsin, the installation of this product/device in a POWTS requires a credentialed/licensed person, local or state plan review, and/or the issuance of a state sanitary permit. See applicable codes—chs. Comm 5 and 81-87, <http://commerce.wi.gov/SB/SB-DivCodesListing.html>.

It is recommended that when required (a credentialed/licensed person, plan review and a state sanitary permit), such information is included in written and electronic communications (brochures/advertisements/webpages, etc.) regarding this product/device.
- An annual check up by a properly credentialed individual is needed to determine when to replenish the Pirana Blend™ Bacteria, clean the effluent filter and to determine if inorganic solids need to be pumped. This annual check up does not change the required pumping and inspection interval established by ch. Comm 83.
- No nitrogen reduction is claimed nor sought for this approval.
- This device requires an aerator pump, one which is designated to provide a minimum 1.5 cfm to the fine bubble diffuser located in the Pirana Predator™ unit.

- Maintenance: Service contract required for mandatory annual maintenance/inspection of unit and other POWTS components by a company representative or POWTS Maintainer. Annual cleaning of air intake filter, replacement of Pirana Blend Bacteria pack, check bio-solids accumulation levels and completion of Pirana Predator Maintenance Inspection report.
- 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/100 ml.
- **Any changes to the constituencies of the Pirana Blend™ or other materials as approved at this time shall trigger a revision and fee PRIOR to review and approval.**
- A copy of this approval letter must accompany each installation of this product in the State of Wisconsin.

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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