



Janice K. Brewer  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Patrick J. Cunningham  
Acting Director

## Notice of Proprietary Treatment Product Listing Pursuant to Arizona Administrative Code R18-9-A309(E)

### 1. Proprietary Treatment Product Name, Model, and Description

Product Name: Zoeller Fusion Treatment System  
Models: ZF450, ZF600, and ZF800

Description: The Zoeller Fusion Treatment System consists of a watertight, four compartment processing tank that includes sedimentation chamber, anaerobic and filter media chamber, aerobic (aeration) and filter media chamber, treated water storage chamber, re-circulation pumps, blower, and related appurtenances.

### 2. Manufacturer Information

Name: Zoeller Pump Company  
Address: P.O. Box 16347  
City/State/Zip: Louisville, KY 40256-0347  
Phone: 502-778-2731 : 800-928-7867  
Fax: 502-774-3624  
Website: [www.zoeller.com](http://www.zoeller.com)

### 3. Recognized General Permit Treatment Technology Pursuant to Arizona Administrative Code

General Permit 4.15 Aerobic System, less than 3,000 gpd Design Flow, A.A.C. R18-9-E315
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### 4. Recognized Treatment Performance

Parameter	Averaging Time	Maximum Value for Parameter & Averaging Time
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ), mg/l	30-day arithmetic mean	60
Total Suspended Solids (TSS), mg/l	30-day arithmetic mean	60
Total nitrogen (as nitrogen), mg/l	five-month arithmetic mean	53
Total coliform, colony forming units/100ml	95th percentile	1,000,000

THIS NOTICE OF TREATMENT PRODUCT LISTING IS DOWNLOADABLE FROM  
[http://www.azdeq.gov/envirom/water/permits/download/tpl\\_Zoeller\\_ZF450ZF600ZF800.pdf](http://www.azdeq.gov/envirom/water/permits/download/tpl_Zoeller_ZF450ZF600ZF800.pdf)

**5. Product Applicability and Limitations for Use for a Recognized General Permit Technology**

<p><b>Applicability:</b> Optional chlorinator may not be used. This listing is only for Zoeller Fusion Wastewater Treatment Systems Models ZF450, ZF600, and ZF800 as specified in A.A.C. R18-9-E315.</p>
<p><b>Limitations:</b></p> <ul style="list-style-type: none"> <li>A. Model ZF450 is for treating wastewater up to a maximum design flow of 450 gpd from a single 3-bedroom family dwelling; Model ZF600 is for treating wastewater up to a maximum design flow of 600 gpd from a single 4-bedroom family dwelling; Model ZF800 is for treating wastewater up to a maximum design flow of 800 gpd from a single 5-bedroom family dwelling; As established per A.A.C. R18-9-A309(B)(3).</li> <li>B. Filter media must be as specified in the Zoeller Fusion Series Treatment Systems Operation and Maintenance Manual, most recent revision.</li> <li>C. Re-circulation flow is 1.2-1.8 times that of inflow (ZF450 29-45 sec/l; ZF600 21-32 sec/l; and ZF800 14-22 sec/l).</li> <li>D. Backwash flow (two per day) rate settings (ZF450 7-10 sec/l; ZF600 5-7 sec/l; and ZF800 4-6 sec/l).</li> <li>E. Listing does not include control panel and alarm device which shall comply with manufacturer specifications and 18 A.A.C. 9, Article 3.</li> <li>F. Performance is as established under A.A.C. R18-9-E315(B)(2).</li> </ul>

**6. Documents Used as the Basis for this Proprietary Treatment Product Listing Notice**

<p>Application for Treatment Product Listing, dated 10-03-2008 (<b>Note 1</b>).</p>
<p>Zoeller Fusion Wastewater Treatment Systems Operation and Maintenance Manual, 2007, 12 pages; Maintenance and Service Report Form, 2007, 2 pages; and Maintenance Agreement Form, 2008, 1 page. (<b>Note 1</b>).</p>
<p>Zoeller Fusion Wastewater Treatment Systems Owner's Manual for Models ZF450, ZF600, and ZF800, 2008, 8 pages (<b>Note 1</b>).</p>
<p>Zoeller Fusion Wastewater Treatment Systems Installation Instructions, 2007, 8 pages and Installation and Startup Checksheet, 2 pages, 09-07 (<b>Note 1</b>).</p>
<p>Manufacturer's Warranty: Page 7 of the Owner's Manual, 2008, 1/2 page (<b>Note 1</b>).</p>
<p>Process Description: Zoeller Fusion Wastewater Treatment Systems, 1 page (<b>Note 1</b>).</p>
<p>NSF determination letter for allowed limits for Models ZF450, ZF600, and ZF800, dated June 27, 2007. 1 page (<b>Note 1</b>).</p>
<p><b>Note 1</b> – Document is an integral part of this Proprietary Treatment Product Listing Notice and is included in the Arizona Department of Environmental Quality website at <a href="http://www.azdeq.gov/environ/water/permits/download/tpl_Zoeller_ZF450ZF600ZF800.pdf">http://www.azdeq.gov/environ/water/permits/download/tpl_Zoeller_ZF450ZF600ZF800.pdf</a></p>

### 7. Terms and Conditions for this Proprietary Treatment Product Listing Notice

- A. This Notice of Proprietary Treatment Product Listing shall remain in effect until any of the following occurs:
- i. An applicable provisions of the Arizona Administrative Code, Title 18, Chapter 9, Article 3 are revised;
  - ii. Documents used for the basis of this listing are altered or modified;
  - iii. Manufacturer claims which are relied upon for this listing are later determined to contain an error or omission, or is not factual;
  - iv. The manufacturer requests termination of this listing;
  - v. A listing error or omission is identified; or
  - vi. The manufacturer requests and ADEQ mutually agree to reissue this notification to incorporate correction or update for any reason.
- B. This Notice of Proprietary Treatment Product Listing does not apply when the:
- i. Listed proprietary treatment product is modified or operated in a manner that conflicts with Arizona law or the documents used for the basis of this listing action in Section 6;
  - ii. Listed proprietary treatment products used in a manner that can not achieve the performance in Section 3 above.
- C. This Notice of Proprietary Treatment Product Listing applies solely to the product specified in Section 1 above.
- D. The manufacturer is responsible for notifying the ADEQ of changes to contact information at the following address:
- Arizona Department of Environmental Quality  
Attention: Product Listing Supervisor  
Engineering Review Desk  
1110 West Washington Street  
Phoenix, AZ 85007
- E. The listing by ADEQ of any proprietary product or service is not an endorsement by ADEQ or the State of Arizona. The ADEQ does not endorse, represent, guarantee, warranty or defend the use of any product which is authorized for use pursuant to A.A.C. R18-9-A309(E). Product providers are a direct source unrelated to ADEQ or the State of Arizona. The use of any listed product is at the user's risk and the State of Arizona assumes no liability.

**Signature:**



Kwame A. Agyare, P.E., Manager  
Engineering Review Section  
Water Quality Division

**Date  
Signed:**

6/25/09

ERP:09-212  
ADEQ File Number: 20080515  
Reviewer: jb8