



Jan Brewer  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Patrick Cunningham  
Acting Director

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

### ADEQ File No. 20080456

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

Product Name: AdvanTex<sup>®</sup> Treatment System  
 Model: AX100  
 Description: The AdvanTex<sup>®</sup> Treatment System consists of a watertight, two compartment processing tank or separate septic and recirculating tanks; engineered textile media filter module; recirculation pump and splitter valve; and related appurtenances described in Section 4 herein.

#### 2. Manufacturer Information

Name: Orenco Systems Inc.  
 Address: 814 Airway Ave  
 City/State/Zip: Sutherlin, OR.97479  
 Phone: 1-800-348-9843  
 Fax: 541-459-2884  
 Website: [www.orenco.com](http://www.orenco.com)

#### 3. Recognized Treatment Performance

Parameter	Averaging Time	Parameter Value for Averaging Time
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ), mg/l	30-day arithmetic mean	15 <sup>1</sup>
Total Suspended Solids (TSS), mg/l	30-day arithmetic mean	15 <sup>1</sup>
Total nitrogen as nitrogen (TN), mg/l	five-month arithmetic mean	15 <sup>1,2</sup>
Total coliform, colony forming units/100ml	95th percentile	100,000

<sup>1</sup> Manufacturer's Design Review Report shall verify the recognized Parameter Values for the specified Averaging Times for each Notice of Intent to Discharge pursuant to A.A.C. R18-9-A309(B) when raw wastewater strength exceeds the maximum values in A.A.C. R18-9-101(42).

<sup>2</sup> Based the five-month arithmetic mean of total nitrogen in raw wastewater (influent) not exceeding 53 mg/L. Total N value of 15 mg/l is recognized treatment performance by this Notice of Proprietary Treatment Product Listing, thereby satisfying the data submittal requirement of A.A.C. R18-9-E312(C)(4).

#### 4. Product Applicability and Limitations for Use for a Recognized General Permit Technology

**Applicability:** This listing is for only the AdvanTex® AX100 Treatment System product line for the treatment technology specified in A.A.C. R18-9-E312(A)(2).

**Limitations:**

- A. The product is for wastewater treatment and subject to A.A.C. R18-9-A312(F)(2) through (4).
- B. The AdvanTex® AX100 treatment system shall conform to the following:

Treatment System Design Flow (gallons per day) (See Note B.1)	Number of AX100 Filter Modules	Primary Tank and Recirculation/Blend Tank		Treatment Product Appurtenances (See Note B.2)
		General Specification	Minimum Operational Liquid Capacity (See Limitation E)	
up to 5,000	1	Commercial AdvanTex® General Specifications, total of 17 pages, dated December 2008	AdvanTex® Design Criteria For Commercial and Multi-Family Applications, total of 11 pages, dated October 2005.	Commercial AdvanTex® General Specifications, total of 17 pages, dated December 2008
>5,000 to 10,000	2			
>10,000 to 15,000	3			
>15,000 to 20,000	4			
>20,000 to <24,000 (see Note B.3)	5			

**NOTES:**

- B.1 – A.A.C. R18-9-A309(B)(3).
- B.2 – Appurtenances for this Treatment Product Listing INCLUDE the Biotube assembly, recirculation pump, recirculation splitter valve, and interconnecting piping. This listing EXCLUDES appurtenances which are considered to be “other manufactured materials and components” such as an alarm, control panel, control, switch, timer, wiring, other electrical devices, and installation components; which are subject to both the manufacturer specifications and any more restrictive requirement in 18 A.A.C. 9, Article 3.
- B.3 – A.A.C. R18-9-E323 applies for treatment system Design Flow of 3,000 gpd to less than 24,000 gpd. The Performance Assurance Plan shall require quarterly effluent sample collection and analysis for Total Nitrogen, to be reported to the approving agency by the permittee on December 31 of each year until the facility is closed pursuant to A.A.C. R18-9-A309(D).

- C. Textile filter hydraulic application rate is not more than that specified in the AdvanTex Design Criteria for Commercial and Multi-Family Applications, AdvanTex® Loading Chart (page 11, dated October 2005) at the rated daily design flow.
- D. Nominal recirculation ratio for the system is 4:1.
- E. When the wastewater source is other than single family dwellings, the Notice of Intent to Discharge Pursuant to A.A.C. R18-9-A309(B) shall include the Manufacturer’s Design Review Report with surge analysis to demonstrate satisfaction of A.A.C. R18-9-A312(B)(4)(e).
- F. Treated wastewater from the listed product shall be delivered to a disposal works which conforms to A.A.C. R18-9-A312(C) through (F), R18-9-A313, and the applicable criteria in 18 A.A.C, Article 3, Part E for the selected disposal technology.

## 5. Alternative Criteria and Exceptions for Use Under the Recognized General Permit Technology


<b>Alternative:</b>	None
<b>Exception:</b>	When the wastewater source is other than single family dwellings, a Manufacturer's Design Review Report shall be submitted with the Notice of Intent to Discharge to specify component capacities, control settings, and supplemental installation & operational practices, and Total N value of 15 mg/l is recognized treatment performance by this Notice of Proprietary Treatment Product Listing, subject to the reviewing agency approval of the findings of the Manufacturer's Design Review Report for each Notice of Intent to Discharge pursuant to A.A.C. R18-9-A309(B)..

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

Application for Treatment Product Listing:	Dated 10-8-2007, 2 pages plus attachments ( <b>NOTE 1</b> ).
Product data:	AdvanTex®-AX100 Filter Data Sheet, 1 page, dated June 2007 ( <b>NOTE 1</b> ).
System components: Listing is subject to EXCLUSIONS in Section 4.B on page 2 of this Notice	Commercial AdvanTex® General Specifications, total of 17 pages, dated December 2008 ( <b>NOTE 1</b> ).
Manufacturer's Design Criteria	Dated October 2005, total of 11 pages ( <b>NOTE 1</b> ).
Manufacturer's Installation Guides:	Dated July 2008, total of 17 pages ( <b>NOTE 1</b> ).
Manufacturer's Operation and Maintenance Manual:	O&M Manual is created for each specific site. System Owner's Disclosure and manual outline provided, total of 2 pages ( <b>NOTE 1</b> ).
Manufacturer's Warrantee:	Dated April 2003, 2 pages, including Exhibit "A" ( <b>NOTE 1</b> ).
Third party test data accepted for superior performance:	Total N value of 15 mg/l and default treatment performance for other parameters are recognized in Section 3 on page 1 of this Notice. Accepted Rotorua Round 1 Test Data for demonstrated superior treatment performance. Total N value of 15 mg/l is recognized treatment performance by this Notice of Proprietary Treatment Product Listing, thereby satisfying the data submittal requirement of A.A.C. R18-9-E312(C)(4).

## 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:
- Applicable provisions of the Arizona Administrative Code, Title 18, Chapter 9, Article 3 are revised;
  - Documents used for the basis of this listing are altered or modified;
  - Manufacturer claims which are relied upon for this listing are later determined to contain an error or omission;
  - The manufacturer requests termination of this listing;
  - A listing error or omission is identified; or
  - The manufacturer 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:
- 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.
  - Listed proprietary treatment products used in a manner that cannot 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:  
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. 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. Use of any listed product is at the user's risk and the State assumes no liability.

<b>Signature:</b>		<b>Date Signed:</b>	3/10/09
<b>Title:</b>	Engineering Review Section Manager		

ERP: 09-0004  
ADEQ File Number 20080456  
Reviewer TF1/EKS

**Note 1 Documentation Package for**  
Notice of Proprietary Treatment Product Listing  
Pursuant to Arizona Administrative Code R18-9-A309(E)  
Orengo Systems Inc., AdvanTex<sup>®</sup> - AX100 Treatment System

- .1 Application for Treatment Product Listing:
- .2 Product data:
- .3 System components:
- .4 Manufacturer's Design Criteria:
- .5 Manufacturer's Installation Guides:
- .6 Manufacturer's Operation and Maintenance Manual:
- .7 Manufacturer's Warrantee:
- .8 Third Party Test Data Accepted for Superior Treatment Performance: On file at the Arizona Department of Environmental Quality, Attention Records Center, 1110 West Washington Street, Phoenix, AZ 85007: