Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Western Region Roseburg Office
725 SE Main
Roseburg, OR 97470
(541) 440-3338
FAX (541) 440-3396

September 6, 2007

Sam Carter
Government Relations Manager
Orenco Systems Inc.
814 Airway Avenue
Sutherlin, OR 97479

**RE: AdvanTex® Treatment System AXN Series w/ UV Disinfection**

Dear Mr. Carter:

Your applications for Oregon Alternative Treatment Technology (ATT) approval of the AdvanTex® Treatment System AXN Series with UV Disinfection have been evaluated by the Oregon Department of Environmental Quality (Department). In your applications, your company has certified that the ATT systems manufactured by Orenco Systems Inc. will comply with all applicable Department rules and regulations. The Department has also reviewed the materials submitted with your applications for compatibility with the standards and criteria found in Oregon Administrative Rule (OAR) 340-071-0345. I am pleased to advise you that the following ATT systems, when used in Mode 3, have been found to meet the approval criteria for Treatment Standard 2 when used as part of an onsite wastewater treatment system in Oregon (Mode 3 is an ATT configuration previously approved by the Department on April 7, 2005):

- **AdvanTex® Treatment System Model: AX20-N in Mode 3 w/ Salcor 3G UV Disinfection (500 gpd)**
- **AdvanTex® Treatment System Model: AX20-2N in Mode 3 w/ Salcor 3G UV Disinfection (1000 gpd)**
- **AdvanTex® Treatment System Model: AX20-3N in Mode 3 w/ Salcor 3G UV Disinfection (1500 gpd)**

You are authorized to manufacture, market, and distribute these ATT systems for use in Oregon, providing the following conditions are met:

1. The ATT must be manufactured in compliance with the Department's rules and the plans and design specifications provided. Any deviation from the plans and specifications shall not be permitted unless authorized by NSF and in writing by the Department.

   The approved plans are labeled AdvanTex® - AXN UV Discharge Options and dated 8/29/07 (attached).

2. You must provide training for, and maintain a list of, certified installers and maintenance providers authorized to work on these ATT systems, and provide certificates to those individuals.

3. ATT systems less than 10 years old may not exceed a failure rate of 10 percent.

4. Each ATT must maintain NSF Standard 40 certification.

5. As the manufacturer of these products, it is your responsibility to assure that each assembled ATT delivered to the construction site is watertight. Assurance must be achieved by periodic testing of the ATT products for water-tightness at the manufacturing facility.

6. A minimum two-year service contract, including a minimum of four service visits (scheduled every six months) must be included in the purchase price of the ATT.

7. Each ATT shall be delivered with an installation manual and owner's manual.

8. Each ATT must be installed in accordance with the manufacturer's installation manual.

9. Each ATT is only acceptable for use at locations where the top loading will not exceed the engineering design parameters. ATT systems proposed for use at other locations must have an engineering analysis of the potential top loading, and may require the preparation of site-specific plans and specifications.

10. All other applicable rules and requirements within OAR Chapter 340, Divisions 071 and 073 must be followed.

Please feel free to contact Zach Loboy at (541) 687-7425 if you have any questions about this letter.

Sincerely,

Michael E. Kucinski, Manager
Water Quality/Onsite

cc: All Contract County Offices
All DEQ Direct Service Offices
Zach Loboy, DEQ Eugene

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Western Region Eugene Office
165 East 7th Avenue, Suite 100
Eugene, OR 97401
(541) 686-7838
FAX (541) 686-7551
OTRS 1-800-735-2900

October 18, 2010

Sam Carter
Government Relations Manager
Orenco Systems, Inc.
814 Airway Avenue
Sutherlin, OR 97479

RE: Amendment to Advantex® Treatment System AXN Series Approval
Treatment Standard 1 and Treatment Standard 2 at 2,000 gpd and 2,500 gpd.

Dear Mr. Carter:

On September 7, 2010 the Oregon Department of Environmental Quality (Department) approved the Advantex® Treatment System AXN Series at both 2,000 gpd and 2,500 gpd for Treatment Standard 1 and Treatment Standard 2. The purpose of this letter is to amend the prior approval by addressing a few issues that were recently raised. Please consider this letter as a replacement of the September 7, 2010 letter.

The Department has received your Oregon Alternative Treatment Technology (ATT) applications and the plans, specifications, and other required exhibits for the Advantex® AXN four (4) and six (6) pod ATT systems in both Treatment Standard 1 and Treatment Standard 2 configurations. NSF International (NSF), through a letter dated January 28, 2010 has stated that if the rated capacity of the NSF certified system is not exceeded, the strength of the wastewater is residential and the loading of the system is maintained consistent with your design; then the NSF certification of the systems remain valid.

Your company and NSF have certified that these ATT systems comply with all applicable Department rules and regulations. The Department has reviewed these materials for compatibility with the standards and criteria found in Oregon Administrative Rule (OAR) 340-071-0345. I am pleased to advise you that the following ATT systems manufactured by your company have been found to meet the approval criteria for Treatment Standard 1 and Treatment Standard 2 when used as part of an onsite wastewater treatment and dispersal system in Oregon:

- AdvanTex® Treatment System Model: AX20-N (4 Pod) Treatment Standard 1 (2,000 gpd).

- AdvanTex® Treatment System Model: AX20-N (4 Pod) Treatment Standard 2 in Mode 3 w/ Salcor 3G UV Disinfection (2,000 gpd).

- AdvanTex® Treatment System Model: AX20-N (6 Pod) Treatment Standard 1 (2,500 gpd).

- AdvanTex® Treatment System Model: AX20-N (6 Pod) Treatment Standard 2 in Mode 3 w/ Salcor 3G UV Disinfection (2,500 gpd).

Orenco Systems, Inc. is authorized to manufacture, market, and distribute these ATT's for use in Oregon, provided the following conditions are met:

1. The ATT systems must be manufactured in compliance with the Department's rules and the plans and design specifications provided. Alteration of the ATT design that might affect system performance must be authorized by NSF International and the Department. Product modification approvals from NSF International must be copied to the Department.

2. The approved plans are dated October 15, 2010 (attached).

3. Each ATT must maintain NSF International Standard 40 certification.

4. As the manufacturer of these ATT systems, Orenco Systems, Inc. must provide training for, and maintain a list of, certified installers and maintenance providers authorized to work on these ATT systems and must provide certificates for those individuals.

5. Systems less than ten (10) years old may not exceed a failure rate of 10%.

6. These systems require the use of duplex pumps in accordance with OAR 340-071-0055(4)(i).

7. A telemetry control panel that meets all state electrical requirements will be required to be installed on each system.

8. An Oregon-approved partitioned (flow through) dosing septic tank with a minimum tank capacity of 4,000 gallons for the 2,000 gpd system and a minimum tank capacity of 5,000 gallons for the 2,500 gpd system is required to precede the ATT. If a single Oregon-approved partitioned (flow through) dosing septic tank of the required capacity is not available, more than one Oregon-approved septic tank shall be used in lieu of the partitioned (flow-through) dosing septic tank and shall be followed by an Oregon-approved 1,500 gallon (minimum) dosing tank. Modifications to Oregon-approved septic and dosing tanks are not authorized.

9. As the manufacturer of these products, it is Orenco's responsibility to assure that each assembled ATT delivered to the construction site is watertight. Assurance must be achieved by periodic testing of the ATT products for water-tightness at the manufacturing facility.

10. A minimum two-year service contract, including a minimum of four service visits (scheduled every six months) must be included in the purchase price of the ATT.

11. Each ATT shall be delivered with an installation manual and owner's manual.

12. Each ATT must be installed in accordance with the manufacturer's installation manual.

13. Each ATT is only acceptable for use at locations where the top loading will not exceed the engineering design parameters. ATT systems proposed for use at other locations must have an engineering analysis of the potential top loading, and may require the preparation of site specific plans and specifications.

14. All other applicable rules and requirements in OAR Chapter 340, Division 071 and 073 must be followed.

I apologize for any confusion that this amendment may have caused. Please feel free to contact Dan Wiltse at (541) 687-7436 if you have any questions regarding this letter.

Sincerely,

Michael E. Kucinski

Michael E. Kucinski, Manager
Water Quality/Onsite

ec: All DEQ Contract County Offices
All DEQ Direct Service Offices

Oregon
John A. Kitzhaber, MD, Governor

Department of Environmental Quality
Western Region Eugene Office
165 East 7th Avenue, Suite 100
Eugene, OR 97401
(541) 686-7838
FAX (541) 686-7551
TTY 711

August 17, 2011

Sam Carter
Government Relations Manager
Orenco Systems Inc.
814 Airway Avenue
Sutherlin, OR 97479

RE: Orenco Model UV-125/31-P disinfection unit.

On September 6, 2007, the Oregon Department of Environmental Quality (Department) approved the AX20-N Mode 3 Alternative Treatment Technology (ATT) system for Treatment Standard 2. That approval is contingent upon Orenco Systems Inc. manufacturing the systems in compliance with the department's rules, regulations and the approved plans and specifications.

NSF International (NSF) recently completed evaluating and testing design modifications to the AdvanTex® AX20N with the Model UV-125/31-P disinfection system. The AdvanTex® system was originally tested in 2006 by NSF with the Salcor Model 3G UV disinfection unit.

NSF's findings, provided in a letter dated July 13, 2011, demonstrated no significant difference in performance between the Salcor Model 3G UV disinfection unit and the Orenco Model UV-125/31-P disinfection unit. NSF's evaluation concluded that the Orenco UV-125/31-P disinfection system will meet or exceed the performance of the originally tested UV system.

Orenco Systems, Inc and NSF have certified that the use of the Orenco UV-125/31-P disinfection system complies with all applicable rules and regulations. I am pleased to advise you that the Orenco AdvanTex® Systems (in Mode 3 configuration) with the UV-125/31-P disinfection system has been found to meet **Treatment Standard 2** approval criteria for use.

This determination should not be construed in any way as our endorsement of the product or any advertising. Moreover, the department is not responsible for any situation which may result from use or mis-application of your product.

If you have any questions regarding this letter, please contact Dan Wiltse at (541) 687-7436 or by email at wiltse.daniel@deq.state.or.us

Sincerely,

For Mike Kucinski, Manager
Water Quality/Onsite

Enclosure

ec: All County & DEQ Onsite Program Staff (w/enclosure)