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17th May, 2009

Mr. Sam Carter
Mr Nicholas Noble

Government Relations
Orenco Systems Inc.,
814 Airway Avenue,
Sutherland, 97479, USA

Mr Chris Shortt

Innoflow / ASA Logistics
1094 Lytton Road,
Murarrie, QLD. 4172

Dear Sirs

This letter is to inform you that the ORENCO Systems Inc., Wastewater Treatment system, AdvanTex AX-20 has been approved for certification to AS/NZS 1546.3. The AX-20 system is designed to treat 500 gallons per day, equivalent to 10 people at 200 litres / person / day.

Sampling and testing of samples taken, was done according to the requirements of NSF/ANSI Standard # 40. This was performed by NovaTec Consultants, an NSF International authorized testing authority.

NSF/ANSI Standard # 40 requires a more comprehensive testing regime than AS/NZS 1546.3 as it includes a greater number of samples to be tested, and stress loading tests for :

- Wash-day stress
- Working parent stress
- Power / equipment failure stress
- Vacation stress

Testing was conducted in Vancouver, BC between May and December, 2006.

A summary of the test results is attached. These include Influent characteristics, and treated water results.

INFLUENT :

Influent to be treated for the NSF/ANSI 40 standard, requires the following characteristics :

CBOD₅ 100 – 300 mg/L
TSS 100 – 350 mg/L

AS/NZS 1546.3 requires :

BOD₅ 150 – 300 mg/L
TSS 150 – 300 mg/L
Total N 20 – 100 g/m³

The Raw Influent averaged :

BOD₅ **177 mg/L**
TSS **210 mg/L**
TKN **41 mg/L**

Therefore, the tested influent was well within the required ranges for both Standards test requirements.

EFFLUENT :

AS/NZS 1546.3 requires :

BOD₅ 90% of samples < 20 mg/L
Maximum result ≤ 30 mg/L

Suspended Solids 90% of samples < 20 mg/L
Maximum result ≤ 45 mg/L

Faecal Coliforms 80% of samples < 20 cfu/100mL
Maximum result ≤ 100 cfu/100mL

Total Nitrogen No set level. As nominated.

The Treated Effluent averaged :

BOD₅ **3.6 mg/L**
TSS **6.1 mg/L**
Faecal Coli. **3 cfu/100mL**
TN **14.4 mg/L**

NOTE : Previous testing conducted to the same standard in 2001 produced comparable results, but no Ultra Violet disinfection was conducted then.

ORENCO : ADVANTEX AX-20

RESULTS SUMMARY : Refer to attached documents.

BOD (mg/L) - Complies with the standard for 100% of results **PASS**

Thermotolerant Coliforms – Complies with the standard for 100% of median results, and greater than 80% below 20 organisms per 100 mL **PASS**

Suspended Solids – Complies with the standard for 100% of results **PASS**

Faecal Coliforms – Complies with the standard **PASS**

Free Chlorine - Not applicable

Nutrient Reduction - This AWTS system also produced large reductions in nutrient levels in the treated wastewater :

Total Nitrogen was reduced by **65 %**

The documentation provided for the Quality management system, including the installation, maintenance, and owner's manuals, is well developed and thorough, and I recommend approving the certification.

A complete listing of the required test data and model compliance drawings has been received by SAI-Global, and is held on file for model design reference.

The AX-20 also complies with the performance requirements of :

- NSW Health Department's Sewage Treatment Accreditation Guideline of May, 2005
- Queensland On-Site Sewerage Code, Department Local Government and Planning, November, 2003
- Victorian EPA Publication 891.1 : December 2008 Code of Practice for On-site wastewater management.
- WA Health Department's Code of Practice for ATU's (Aerobic Treatment Units) : November 2001.

Yours sincerely



Mark Hazeldine

Client Manager
Product Certification
SAI Global Limited