

**Florida Department of Health  
Onsite Nitrogen Reduction Strategies Study**

**Contract CORCL**

**PNRS II TEST FACILITY CONSTRUCTION  
PROGRESS REPORT #2**

**Date:** April 2, 2010  
**NTP Date:** January 29, 2010

Construction of the PNRS II test facility was started February 15<sup>th</sup>. Below is a list of items completed to date.

**I. PNRS II Test Facility Construction JTD**

**A. Installed Tanks and Accessories**

1. Wooden platform has been constructed
2. Flowmeters on existing OSTDS system dose pipes
3. 1050 gallon STE storage tank (Tank 1) and influent pipe
4. (11) Stage 1 Tanks
5. (5) Stage 2 Single-Pass Tanks
6. (4) STE & Recirculation Mixing Tanks
7. (1) Denite Feed Tank
8. (4) Recirculation Pump Tanks
9. Hydrosplitter tee, petcock valves, tubing
10. Geotextile fabric Mirafi FW700
11. Drain pipe
12. Potable water line installed and connected to existing system

**B. Procured Pumps and Accessories**

1. P2, P3, P4, P6, P7, P8, P9, P14, P15 - Little Giant pumps
2. P5 – In-situ simulation tanks peristaltic pump drive, (2) 1-channel pump heads
3. P10 and P11 - Stage 2 peristaltic pump drive, (2) 2-channel pump heads for stage 2 filter, and (1) 1 channel head for glycerol
4. Installed P6, P7, P8, P9 recycle pumps

C. Electrical

1. A 15 KVA step-up transformer was installed to the existing 208 volt, 3 phase power feeder to increase the voltage to 480 volt, 3 phase to reduce voltage drop in the 700 foot long feeder. A 15 KVA step-down transformer was installed to feed the existing pump system 120/208 volt power. A second 15 KVA step-down transformer was installed to feed our new system 120/240 volt power.
2. Main Control Panel is being manufactured by American Manufacturing estimated delivery week of 4/5/2010.

D. Buildings

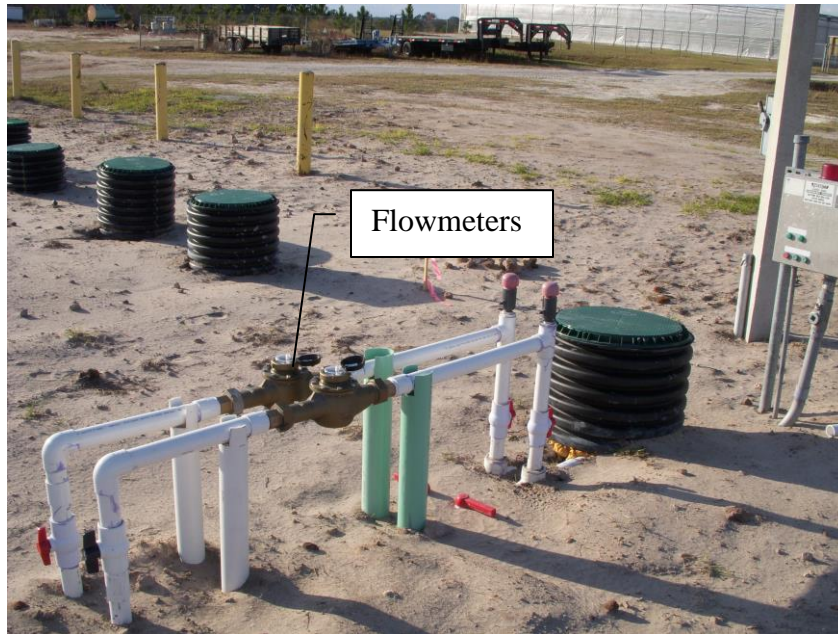
1. The storage shed (8' x 16') has been delivered and installed near the wooden platform.
2. The 28' x 50' shade cover roof is almost completely installed.

## II. Photos Showing Various Components of the Test Facility



1050 Gal. STE  
Storage Tank #1

1050 Gallon STE Storage Tank 1



Flowmeters for Existing OSTDS System



Wooden Platform North Side



Installing Tanks



Installing Potable Water Line





Mixing Media (Clinoptilolite 8X14 and Oyster Shell)



Media Storage



Gravel at the Bottom of the Tanks



Installing Geotextile Fabric above Gravel at Bottom of Tanks



Installing Media in Tank (UNSAT-EC-3) above Geotextile Fabric



Tamping Media (UNSAT-CL-3)





Installing Sample Piezometers within Stage 2 Upflow Tank (DENIT-LS-2)



Installing Media within 6" x 72" L Stage 2 Filters (DENIT-SU-1)





Hydrosplitter 1



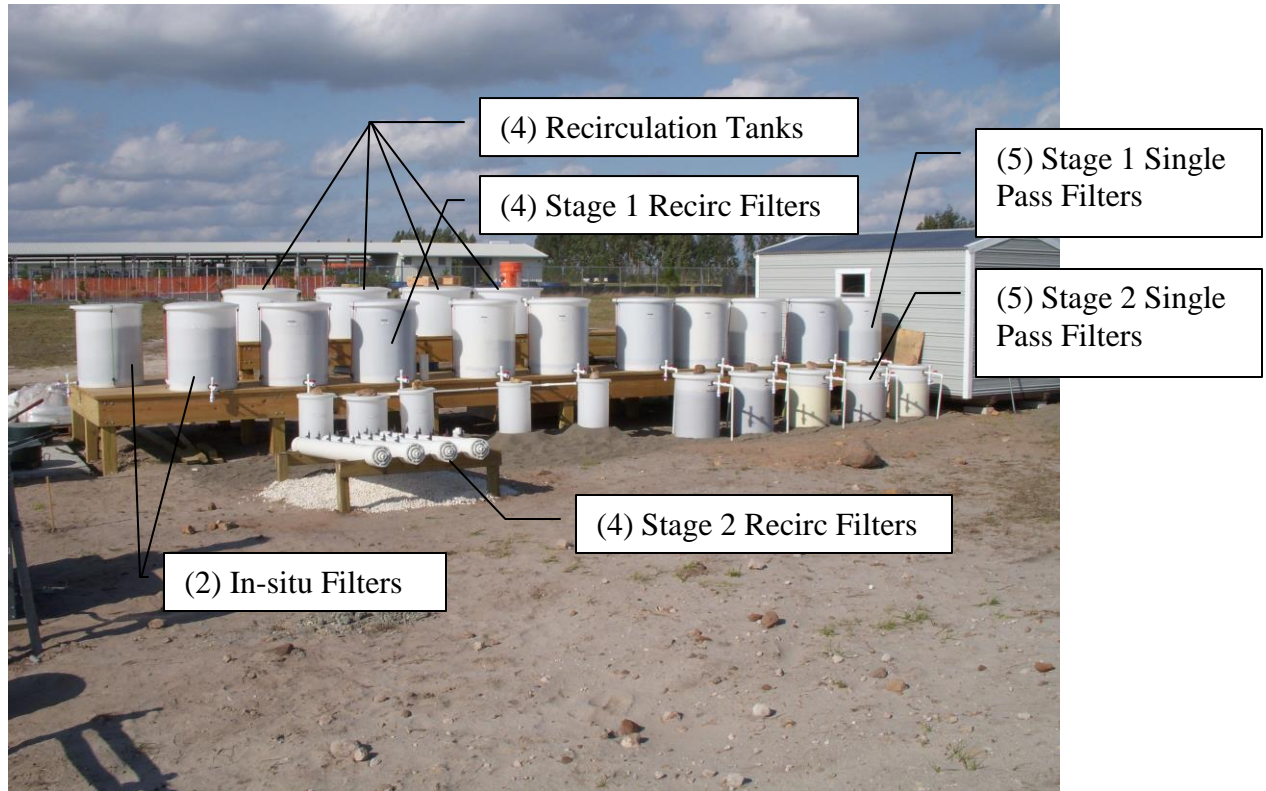
Hydrosplitter 2



Storage Shed



New Electrical Transformers







Metal Building Support  
Beam & Anchors

Metal Building Support Beam & Anchors Installed



Metal Building  
J Frame

Metal Building J Frame Installed



First Roof Panel Installed



Metal Building Roof Panels Almost Complete



Metal Building Support Beams Almost Complete



Recirculation Pumps and Pipe Installed





PNRS II Test Facility