

2010 FACILITY MAINTENANCE RECORD VEOLIA WATER WEST OERPATING SERVICES, INC.

The following information below regarding maintenance and SCADA encompasses August 3 thru December 31, 2010. Equipment listed was either repaired, installed and or replaced. The list is not in any specific order of occurrence.

MAINTENANCE

Influent and Effluent Flow Meters Calibrated – August 2010 & Oct./Nov. 2010
Replaced Instrument Air Dryer – December 2010
Replaced Process Train Level Sensors – September 2010
Repaired By-Pass Effluent Flow Meter – Oct./Nov.2010
Installed new CL2 Probes – October 2010
Installed new Recirculation Pump Timer Relays – September 2010
Installed new Back Pulse Pump Timer Relays – October 2010
Installed ISSCO Sampler Thermometers – September 2010
Return Pump Station HVAC System replaced – August 2010
Overhead Crane Certified – August 2010
Replaced and installed Flow Sensor Effluent Sampler – November 2010
Repaired and installed Membrane Train # 3 Turbidity Analyzer – Sept. 2010
Replaced CL2 Metering MasterFlex Pump Head Assemblies – September 2010
Replaced MasterFlex Pump Tubing – September 2010
Installed New Diaphragm Check Valves CL2 Pumps – September 2010
Installed V-Belts IPS Odor Control System – September 2010
Process Blower # 4 Core Replaced – December 2010
Replaced Membrane Blower Blow Off Solenoids – December 2010
Installed Stilling Well System IPS – September 2010
Replaced Air Filters in Blower Room – October 2010
Added Aluminum Grating Effluent Pump Station (Safety) – October 2010
Added Aluminum Grating Distribution Structures (Safety) – October 2010
Plant Potable Water Backflow Device Certified – October 2010
Plant Fire Extinguishers Certified – September 2010
Disc and Ripped all Eight (8) Percolation Ponds/Beds – October, November & December 2010
Repaired Membrane Channel Motorized Inlet Gate # 1 Train # 1 – October 2010
Surge Tank Compressors Certified – November 2010
Repaired Valve Stem/Key for Percolation Pond # 5 – October 2010
Performed Recovery Cleans on 4 Membrane Trains – December 2010
Repaired Plant Drain Pump # 3 – December 2010
Repaired leak on Sodium Hypochlorite Bulk Storage Tank – November 2010
Replaced Rotometer on Permeate Combined Turbidity Analyzer – December 2010
Replaced motor on Septage Receiving Station Muffin Monster – December 2010

SCADA

The PC PRI_IO_SERVER was set to be the Network Application Development (NAD) Server. InTouch graphic and scripting changes made on the primary server can be automatically replicated instead of manually copied over to the other InTouch nodes. – November 2010

The Data Access I/O Servers are running in redundancy mode with PRI_IO_SERVER in the lead and SEC_IO_SERVER serving as the backup. When the primary I/O Server loses communications to the PLC's the secondary one will take over serving data. – November 2010

Alarming is distributed to support global acknowledgements and using redundancy if the primary alarm provider goes down. – November 2010

SCADAAlarm (the alarm auto dialing software) is running primary/failover mode. There is also a script to check if SCADAAlarm is running and if it isn't, InTouch will try to start it again. – November 2010

Installed new VPN Router – December 2010

Installed Ultra VNC server on Zenon Machine – December 2010

Installed Backup for Workgroups Server – December 2010

Installed Backup for Workgroups Clients on all SCADA clients – December 2010

Installed Operator Access on VPN Router – December 2010

Installed Port Forwarding on VPN Router so operators can access workstation – December 2010

Mapped SCADA network – December 2010

Checked SCADA network to City Barn – December 2010

Downloaded PLC program of Cimon PLC's – December 2010

Downloaded PLC programs from Allen Bradley PLC's – December 2010

Installed UltraVNC viewer on operators computer to access Zenon Computer – December 2010

Installed Dude Software on Historical Server to allow operators to monitor network status – December 2010

Made copies of I&C control drawings for reference – December 2010

Evaluated Installing radio link for buildings not on network – December 2010

HydroScience Major Maintenance Issues:

January – A hydro pneumatic surge tank was installed on the reclaimed water to off-site use area main pipeline.

June – Influent grinder drive shaft broke. Industrial TP grinder temporarily installed until new shaft was installed and grinder re-installed.