ALTAFILTER
PRELIMINARY COMMISSIONING CHECKLIST

Job Name: **South Sangamon**
Job Number: **21038A**
Unit Number: **3**

Date: 1/24/12
Location: **Rochester, IL**
Group 14

OK REJ N/A Mechanical Inspection:

- [x] [ ] [ ] No obvious physical damage to skid components.
- [x] [ ] [ ] Skids are level.
- [x] [ ] [ ] Dummy test modules and plugs are in place.
- [x] [ ] [ ] All process and electrical connections have been completed. Plant piping is properly supported. Piping has been adequately flushed free of construction debris.
- [x] [ ] [ ] All valves and instruments have been installed per the P&ID and manufacturer recommendations.
- [x] [ ] [ ] Pneumatic actuator supply tubing has been swept free of debris before operating solenoids.
- [x] [ ] [ ] Chemical injection lines cannot siphon or free drain into the process piping.

OK REJ N/A Valve & Instrument Checkout:

- [x] [ ] [ ] Valves open & close reliably. Speed controls have been adjusted. Solenoids exhaust air properly. Limit stops have been adjusted if necessary. Valve position matches actuator indicator and HMI.
- [x] [ ] [ ] Pressure gauges have been adjusted for zero at local ambient pressure.
- [x] [ ] [ ] Pressure transmitters match actual.
- [x] [ ] [ ] Flow meter calibrations have been entered into the PLC. Reported flow matches actual. Plant is capable of full feed flow and required BW flow & pressure.
- [x] [ ] [ ] Level transmitters have been calibrated as necessary and scaling has been entered into the PLC. Reported level matches actual. ~~NEED CORRECTION SIGNAL~~ COMPLETED
- [x] [ ] [ ] Temperature transmitter scaling has been entered into the PLC. Reported temperature matches actual.
- [x] [ ] [ ] pH meters have been calibrated. Reported pH matches actual.
- [x] [ ] [ ] Metering pump rates have been adjusted, calibration/flow verified, and dosage measured. Pumps operate from PLC/HMI as intended.
- [x] [ ] [ ] Turbidimeters have been calibrated and flow rates have been adjusted. Reported turbidity matches actual.
- [x] [ ] [ ] Particle counter flow rates have been adjusted. Reported particle count matches actual.
- [x] [ ] [ ] Pressure switches have been adjusted.
- [x] [ ] [ ] Pressure regulators have been adjusted.

OK REJ N/A Controls/System Checkout:

- [x] [ ] [ ] Operation of each manual control mode has been checked.
- [x] [ ] [ ] Operation of automatic control has been checked (w/ abbreviated run times, PDT intervals, etc). System operates smoothly without water hammer, pressure spikes, bumps & bangs at full flow. Interlocks & control loops work properly.
- [x] [ ] [ ] Alarms function properly. System shuts down on critical alarms. Alarm auto dialer works (if applicable).
- [x] [ ] [ ] Operating timers and alarm set points are correctly entered and saved. Screen shots of the screens with set points have been saved for future reference. SCREEN SHOTS WILL BE DONE REMOTELY.
- [x] [ ] [ ] Dial-up modem and/or ethernet connection works.
- [x] [ ] [ ] Manual operation of each component on CIP skid has been checked.
- [x] [ ] [ ] CIP sequence/operation checked using water in chemical feed tanks with abbreviated timers.

OK REJ N/A Training:

- [x] [ ] [ ] Procedure for installing the UF modules has been demonstrated. NO modules should be installed until the previous steps have all been completed satisfactorily.

The installation of the equipment is complete and the trial operation of the equipment has been satisfactory.

Checked By: Ron Hanson Date: 2/24/12

Customer: S SANGAMON WATER Date: / /

Title: PROJ. MGR

(Owner – Plant Operator – Engineer)

FOR 2/24/2012
FRANK JOHNSON, WESTECH P. M.

ALTAFILTER
FINAL COMMISSIONING CHECKLIST

Job Name: **South Sangamon**
Job Number: **21038A**
Unit Number: **3**

Date: 2/24/2012
Location: **Rochester, IL**
Group 14

OK REJ N/A Mechanical Inspection:

- [x] [ ] [ ] No obvious physical damage to skid components.
- [x] [ ] [ ] UF modules are in place.
- [x] [ ] [ ] Air scour regulator and needle valves have adjusted for 1.5 scfm at 15 psi per module.
- [x] [ ] [ ] System has been pressure tested at 30 psi. No noticeable leaks. — 1 LEAK, SENDING REPLACEMENT GRUVLOK CLAMP.
- [x] [ ] [ ] PDT has been performed for each bank to determine initial baseline pressure loss. Pressure loss has been entered into the PLC. Baseline pressure loss: Bank 1: .28. Bank 2: .27. Bank 3: _____. Bank 4: N/A.
- [x] [ ] [ ] Modules found to have broken fibers have been repaired. Operators have been trained in repair procedure.

OK REJ N/A Valve & Instrument Checkout:

- [x] [ ] [ ] Valves open & close reliably. Fire each valve separately and observe opening & closing speed and any unusual noises.
- [x] [ ] [ ] Chemical metering pumps have been adjusted as necessary to give desired residual chlorine level (or pH) in effluent and BW waste.
- [x] [ ] [ ] Particle counter sampling flow rates have been measured and adjusted as necessary.
- [x] [ ] [ ] Turbidimeter sampling flow rates have been measured and adjusted as necessary.

OK REJ N/A Controls/System Checkout:

- [x] [ ] [ ] Any modifications to the program have been checked out.
- [x] [ ] [ ] System has been allowed to run in automatic mode at full flow through 4 complete production & BW cycles. Production and BW timers have been adjusted for TMP rise rate and clear flow at the end of the BW.
- [x] [ ] [ ] CIP has been checked out using chemicals. Abbreviated rinse and soak times may be used if a full clean is not required.
- [x] [ ] [ ] PDT has been performed for each bank and any broken fibers have been repaired.
- [x] [ ] [ ] Operating timers and alarm set points are correctly entered and saved. Screen shots of the screens with set points have been saved for future reference. SCREEN SHOTS WILL BE DONE REMOTELY.

OK REJ N/A Training:

- [x] [ ] [ ] Operator has read through and is familiar with the operating and maintenance instructions.
- [x] [ ] [ ] Operator has been trained in procedure for checking for and repairing broken fibers.
- [x] [ ] [ ] Operator has been trained in procedure for checking valve operation, adjusting the chemical metering pumps, and sampling rates for the particle counters and turbidimeters.
- [x] [ ] [ ] Operator has been trained in use of the manual and automatic control modes, including CIP, from the HMI.

Total training time: 4 HRS Date: 2/24/12 Operator initials: JA, RV, _____.

Comments:

The installation of the equipment is complete and the trial operation of the equipment has been satisfactory.

Checked By: Ron Vance Date: 2/24/12

Customer: S Sangamon Water Date: / /

Title: Prod. Mgr

(Owner – Plant Operator – Engineer)

Frank Johnson, Westech P.M. 2/24/2012