

OBJECTIVE

Lists sensors with recommended calibration, cleaning and replacement schedules

Supporting References:

1. Sensor mechanical & electrical specifications: **Snsrspec.doc**
2. Sensor Troubleshooting: **Tr_0101.vsd, Tr_0103.vsd & Tr_0104.vsd**
3. ORP tracking & cleaning: **FLXADV10.doc**

Contact Aquatrac @ www.aquatrac.com if you have any questions or operating concerns.

PM Schedule

Sensor	Cleaning See Note 1 & Caution on Page2	Verify - Calibrate	Replacement Schedule
Conductivity	Whitish or brown deposits: dilute HCL Organic Fouling: alcohol, solvents or soap & water. See Note 3	Verify monthly Calibrate as needed See Note 2	2 years
Corrosion Rate	Do not clean Refer to user manual if pitted.	User calibration not required. See Note 4	2 years Tips only
Flowswitch	Dis-assemble to verify mechanical operation and remove debris.	Valve OFF flow during every system service and verify flowswitch Shows OFF. Perform at least monthly.	
ORP	Whitish or brown deposits: dilute HCL Organic Fouling: alcohol, solvents or soap & water. Failure to track: 5% nitric for 5- 10 minutes See Note 5	Verify monthly Do not calibrate. See Note 5	2 years
pH	Whitish or brown deposits: dilute HCL Organic Fouling: alcohol, solvents or soap & water. See Note 6	Verify monthly Calibrate as needed See Note 6	1 year

Caution – Removing Oils, Geases & Biofilms from pH & ORP sensors

Solvents that will not attack the sensor body are an alternative method to soap & water.

Methanol and isopropyl alcohol are acceptable solvents.

Acetone, MEK, THF, or trichloroethane may irreparably harm the sensor.

A soft toothbrush can be used with the detergent to remove stubborn coatings.

Notes:

Note 1: Do not clean sensors unless there are operational problems: failure to track, calibration out of range, mechanical damage. Excessive cleaning may reduce the operating life of pH sensors.

Single point calibrate pH & conductivity sensors by sampling the cooling water and keying the current conductivity or pH into the controller. There is no increase in control accuracy when sensors are two point calibrated.

Note 2: Calibrating more frequently than every 30 days indicates operating problems. Systems with effective water treatment will operate a year or more between calibrations.

Note 3: Clean with a solvent before re-calibrating. If conductivity increases, sensor was organically fouled: locate the source & correct.

Note 4: Controller system level alarms indicate operating problems. Operating problems which foul conductivity sensors will also foul corrosion rate sensors.

Note 5: ORP sensors read +/-5mV of the actual ORP. If sensors are reading high or low or failing to respond to oxidant or reductant, then there is an operating problem which cannot be fixed by calibration. Operating problems which foul conductivity sensors will also foul ORP sensors.

Note 6: Calibrating more frequently than every 30 days indicates operating problems. Reddish or black Iron deposits will prematurely fail pH sensors. Dropping or rapping the sensor on a hard surface may micro-crack the pH sensitive glass and result in a fixed pH which does not change with acid or caustic addition.