

## **7.0 Maintenance Procedures**

### **7.1 Raw Water Pumps**

Location: In Reservoir

- 7.1.1 No regular maintenance is required

### **7.2 Basket Strainer**

Location: Treatment Room after raw water intakes

- 7.2.1 Strainer should be emptied when:
  - 7.2.1.1 Pressure differential exceeds 5 psi
  - 7.2.1.2 Every 2 weeks

### **7.3 Cartridge Filtration**

Location: Treatment room

- 7.3.1 Filters should be changed when
  - 7.3.1.1 The pressure differential across them reaches 15-20 psi
  - 7.3.1.2 See Chapter 6 for filter change out procedure
- 7.3.2 O-rings and seals should be checked for damage or excessive wear when filters are changed.

### **7.4 Calcium Hypochlorite Mixer**

Location: Chlorine Room

- 7.4.1 Tanks should be cleaned when there is excessive build up of debris
- 7.4.2 The mixer impeller should be checked for damage and signs of rust. Replace if necessary.

### **7.5 Calcium Hypochlorite Dosing Pumps**

Location: Chlorine Room, Control Panel in generator room

- 7.5.1 Daily checks for leaks
  - 7.5.1.1 Check fittings
  - 7.5.1.2 Check for cracks in tubing
- 7.5.2 Once a year or every 4000 hrs of operation
  - 7.5.2.1 Follow cleaning procedure in pump manufacturer's manual

### **7.6 Domestic Water Supply**

Location: storage tank is across from sink, pump and hot water heater are under sink

- 7.6.1 Hot water tank
  - 7.6.1.1 At least once a year, lift and release the lever handle on the temperature pressure relief valve, located near the top of the water heater, to make certain the valve operates freely. Allow several gallons to flush through the discharge line to an open drain.

- 7.6.1.2 Rapid closing of faucets or solenoid valves in automatic water using appliances can cause a banging noise heard in a water pipe. Strategically located risers in the water pipe system or water hammer arresting devices can be used to minimize the problem.
- 7.6.1.3 The anode rod should be removed from the water heater's tank annually for inspection and replaced when more than 6" of core wire is exposed at either end of the rod. Make sure the cold water supply is turned off before removing anode rod.
- 7.6.1.4 NOTICE: Do not remove the anode rod from the water heater's tank, except for inspection and/or replacement, as operation with the anode rod removed will shorten the life of the glass lined tank and will exclude warranty coverage.

## 7.7 Waste Water System

Location: Sump pump and tank is under the floor next Filter #4. The waste water Storage tank is on the wall across from the sink.

- 7.7.1 The waste water tank needs to be emptied when 80% full

## 7.8 Furnace

Location: In the space across from Filters 2 & 3

- 7.8.1 Check the furnace air filter every 3-4 weeks and replace as necessary
- 7.8.2 Check the fuel filters every week.
- 7.8.3 Once a year, have a professional inspect and service the furnace

## 7.9 Backup Power Generator Set

Location: Generator Room

- 7.9.1 To assure that your engine will deliver efficient standby operation when needed, start engine and run at rated speed (with 50%-70% load) for 30 minutes every 2 weeks. DO NOT allow engine to run extended period of time with no load.
- 7.9.2 Follow maintenance schedule and procedures from John Deere engine manual.

	Lubrication and Maintenance Service Intervals				
Item	Daily	250 Hour/ 6 Month	500 Hour/ 12 Month	2000 Hour/ 24 Month	As Required
Check the battery charge level	*				
Check Engine Oil and Coolant Level	*				
Check Fuel Filter(s)/Water Separator Bowl	*				
Check Air Cleaner Dust Unloader Valve & Indicator <sup>a</sup>	*				
Perform Visual Walkaround Inspection		*			
Change Engine Oil And Replace Oil Filter <sup>b</sup>		*			

Check Engine Mounts		*			
Service Battery		*			
Check Manual Belt Tensioner and Belt Wear		*			
Clean Crankcase Vent Tube			*		
Check Air Intake Hoses, Connections, & System			*		
Replace Single or Dual Fuel Filter Elements			*		
Check Automatic Belt Tensioner and Belt Wear			*		
Check Engine Speeds			*		
Check Engine Electrical Ground Connection			*		
Check Cooling System			*		
Coolant Solution Analysis-Add SCAs as required			*		
Pressure Test Cooling System			*		
Check Crankshaft Vibration Damper ( <b>6.8 L Engines</b> ) <sup>c</sup>				*	
Flush Cooling System <sup>d</sup>				*	
Test Thermostats				*	
Check and Adjust Engine Valve Clearance				*	
Add Coolant					*
Replace Air Cleaner Elements					*
Replace Poly-Vee Belt					*
Check Fuses					*
<sup>a</sup> Replace primary air cleaner element when restriction indicator shows a vacuum of 625 mm (25 in.) H <sub>2</sub> O.					
<sup>b</sup> Change the oil for the first time after 100 hours maximum of break-in operation. For subsequent oil and filter intervals, see recommendations in section 10.					
<sup>c</sup> Replace crankshaft damper every 4500 hours or 60 months, whichever occurs first.					

## 7.10 Genset Ventilation

Location: Generator Room

7.10.1 No regular maintenance is required

## 7.11 Daytank and Diesel Fuel Supply

Location: Day tank is in generator room, main diesel storage is outside

7.11.1 Check fuel levels every 2-3 days

7.11.2 No other regular maintenance is required.