

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
CENTRIFUGAL PUMP, CHILLED AND HOT WATER

ACTIVITY AND BLDG #: PA 051-194 MECHANIC SIGNATURE: Dennis Stingo DATE: 12/15/18

LOCATION: Room 209A START TIME: 1 FINISH TIME: 3

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	In addition to the procedure(s) outlined in this standard, the equipment manufacturer's recommended maintenance procedure(s) and/or instruction(s) shall be strictly adhered to.	✓		
2	Read and understand manufacturer's instructions of each device before making adjustments to the device or to the system PRIOR to making any changes.	✓		
3	Schedule service outages for the areas controlled by the field panel.	✓		
4	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.	✓		
5	It is generally not a good idea to tamper with pumps using mechanical seals if they are otherwise performing properly. Since mechanical seals can cost as much as the pump, it is usually not cost effective to risk damaging the seal by performing an annual internal inspection of the pump.	✓		
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Visually inspect the energized pump and motor. Look for fluid leaks originating from the area of the mechanical seal. Replace seal even if leaking only slightly. If seal is leaking, perform the following (refer to a vendor if needed). a. Disconnect and remove pump/motor coupling from pump shaft. b. Clean external pump housing and shaft. c. Remove flange on pump housing to remove pump mechanical seal assembly while noting how the seal is assembled on the shaft and in the pump housing. d. After old seal has been removed, clean surfaces of shaft cleave	✓		

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETED		NOTES/ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
1 (cont.)	e. If this sleeve is galled or damaged, a new seal will not hold for long. It is best to replace the shaft sleeve at this time. f. If the shaft sleeve is not damaged, follow seal manufacturer's instructions and install new mechanical seal. g. Install new pump housing "O" ring or gasket, reinstall pump housing. h. Slowly open discharge and suction valve, then rotate pump shaft to assist in setting mechanical seal.	✓		
2	Look for fluid leaks from other areas of the pump, flanges and gaskets, pressure gauges and fittings, bypass tubes or piping, and air release valves.	✓		
3	Look for bearing oil or grease leaks.	✓		
4	Observe coupling for excessive noise or obvious misalignment.	✓		
5	Observe fluid temperatures, pressures, and bearing temperatures if thermometers and pressure gauges are available.	✓		
6	De-energize pump and motor.	✓		
7	Observe pump and motor during shutdown. Often times, vibration and bearing problems become more noticeable during a coasting slowdown of the pump and motor.	✓		
8	Close suction and any bypass valves. Bleed off pressure but do not drain pump.	✓		
9	Observe pressure gauges for signs that the discharge check valve is not closing tightly.	✓		
10	Close discharge valve. Bleed off pressure but do not drain pump. Observe pressure gauges for signs that the discharge and suction valves are not closing tightly.	✓		
11	Lubricate pump and motor bearings. DO NOT OVER LUBRICATE	✓		
12	Use a torque wrench to check the tightness of all bolts, especially the bolts of cast iron pumps.	✓		
13	Closely inspect the pump-motor coupling.	✓		
14	Check motor and pump alignment.	✓		
15	Inspect and clean suction strainers and blowdown valves.	✓		
16	Clean pump and casing surfaces.	✓		

Note: The Contractor shall perform any repairs identified during PM up to \$250 (direct labor and direct material cost) per PM occurrence.
Checklist compiled in accordance with:

- General Services Administration (GSA) Public Building Service. 2012. *Public Buildings Maintenance Standards Final*. October 1.
- Original equipment manufacturers (OEM) documentation for exact or similar assets, which can be located at ([Provide Link to OEM Manual/Asset Library](#))

Additional Notes: