

**CERTIFICATION OF WORK  
PREVENTIVE MAINTENANCE**

(To be completed by the Contractor and saved in the Contractor's CMMS)

FACID/Building: MD019 Date of Visit: 11/22/19

Contractor Personnel on Site:

- |                      |          |
|----------------------|----------|
| 1. <u>John Brown</u> | 3. _____ |
| 2. _____             | 4. _____ |

**Work Performed:**

**Preventive Maintenance** - Services Completed (Annual, Quarterly, Monthly, equipment identification, etc.)

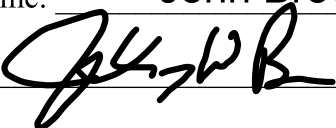
1. WO'S 11114FQ, 11131MO, 11148QT, 11173SA, 11192PMF, 11205Q, 1
2. 11115FQ, 11149QT,
3. FILTERS, GATE, KITCHEN EQUIP, WATER HEATERS. AIR HANDLER, CHILLER
4. HUMIDIFIER, FURNACE, SUMPPUMP, TIME CLOCK, VFD
5. \_\_\_\_\_

-----

**CERTIFICATION OF WORK**

To be signed by the Contractor:

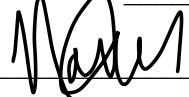
Print Name: John Brown Date: 11/22/19

Signed: 

To be signed by Facility Manager:

By signing the Certification of Work, the said government representative signature does not constitute acceptance of any work performed by the contractor, it only acknowledges that the contractor was on-site during the identified timeline:

Print Name/Rank: 1st Sargent Nathan Maze Date: 11/22/19

Signed: 

E-Mail: \_\_\_\_\_

# **PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST** **AIR HANDLER**

MECHANIC  
SIGNATURE:



DATE: 11/22/19






START TIME: 0900

FINISH TIME: 1630

SITE AND BLDG #: MD019-01

LOCATION/RM #: WO# 11173 ASSET # 2046

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Remove power at Drive or at Breaker Panel. Verify with tester or meter that power has been removed. Install lock out tag out if servicing alone or in confined space for safety precautions.			
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Check fan blades and moving parts for cracks and excessive wear.			
2	Check running motor amperatures on all three phases (record in note column) notate L1, L2, and L3 amp draws.-Inspect contactors			L1 <u>20.5</u> L2 <u>21</u> L3 <u>22</u>
3	Tighten all electrical connectors/lugs to proper torque.			
4	If unit is a multi-zone air handler, then check each individual zone damper and associated controls.			
5	Check bearing collar set screws on fan shaft to make sure they are tight.			
6	Replace filters quarterly, replace as necessary. Check belt, repair or replace as necessary.			
7	Check damper actuators and linkage for proper operation. Adjust linkage on dampers if out of alignment.			
8	Lubricate mechanical bearings and connections sparingly.			
9	Clean coils by brushing, blowing, vacuuming			
10	Check coils for leaking, tightness of fittings.			
11	Use fin comb to straighten coil fins.			
12	Report any equipment rust or condensate pan rust -IF found open CM			
13	Flush and clean condensate pans and drains, Hose down coils and drain pans and wash with an appropriate EPA approved solution approved solution. Treat condensate pans with an EPA approved biocide.			
14	Check belts for wear and cracks, adjust tension or alignment. Replace belts when necessary. Multi-belt drives shall only be replaced with matched sets.			
15	Check rigid couplings for alignment on direct drives, and for tightness of assembly. Check flexible couplings for alignment and wear.			

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
16	Check and test freezestat for proper operation			
17	Vacuum interior of unit.			
18	Check filter doors and access doors for proper gasketing and air leaks. Correct as necessary.			
19	Lubricate fan shaft bearings while unit is running. Add grease slowly until slight bleeding is noted from the seals. Do not over lubricate. Remove old or excess lubricant.			
20	Clean up work area.			

Note: The technician shall perform any repairs identified during PM up to \$250 (direct labor and direct material cost) per PM occurrence. For any deficiencies found exceeding \$250 open a corrective maintenance (CM) ticket and include the Asset #, WO #, photos, and a detailed discription of the deficiency.

To be performed by: HVAC Technician

**Additional Notes:**

**PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST**  
**AIR COOLED CHILLER, PACKAGE UNIT**

MECHANIC  
SIGNATURE
















DATE: 11/22/19

SITE AND BLDG #: MD019-01

LOCATION/RM #: WO# 11173 ASSET # 2047

START TIME: 0900 FINISH TIME: 1630

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
<b>SPECIAL INSTRUCTIONS</b>				
1	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.			
2	No intentional venting of refrigerants is permitted. During the servicing, maintenance, and repair of refrigeration equipment, the refrigerant must be recovered.			
3	Whenever refrigerant is added or removed from equipment, record the quantities on the appropriate forms. Forms to be maintained by technician in universal waste binder.			
4	Recover, recycle, or reclaim the refrigerant as appropriate.			
5	If disposal of the equipment item is required, follow regulations concerning removal of refrigerants and disposal of the item.			
6	If materials containing refrigerants are discarded, comply with EPA regulations as applicable.			
7	Refrigerant oils to be treated as hazardous waste.			
8	Closely follow all safety procedures described in the Safety Data Sheet (SDS) for the refrigerant and all labels on refrigerant containers.			
9	Remove access covers prior to accomplishing check points.			
<b>TO BE PERFORMED AT EACH INSPECTION SERVICE</b>				
<b>CONDENSER</b>				
1	Remove debris from air screen and clean underneath unit.			
2	Pressure wash coil with proper cleaning solution.			
3	Straighten fin tubes with fin comb.			
4	Check electrical wiring and tighten loose connections. Check fused disconnect switches for condition and operation, contactors			
5	Check mounting for tightness.			
6	Check for corrosion. Clean and treat with inhibitor as needed.			
7	Check fan or blower for bent or damaged blades and imbalance.			

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
8	Lubricate shaft and motor bearings on fans and remove old or excess lubricant, if applicable.		N/A	
9	Inspect pulleys, belts, couplings, etc.; adjust tension and tighten mountings as necessary. Change badly worn belts. Multi-belt drives should be replaced with matched sets.		N/A	
EVAPORATOR				
1	Inspect evaporator for any obvious deficiencies.			
2	Inspect plumbing, valves and flanges for leaks and correct as needed.			
COMPRESSOR(S)				
1	Lubricate drive coupling, if applicable.		N/A	
2	Lubricate motor bearings (non-hermetic), if applicable.		N/A	
3	Check bearings for vibrations or unusual noises.		N/A	
4	Leak test unit with soap test or electronic device.			
5	Check compressor oil level., if applicable.	✓		
6	Run machine; check action of controls, relays, switches, etc. to see that: a. Compressor(s) run at proper settings. b. Suction and discharge pressures are proper.	✓	✓	PM and shutdown were performed in October by S&S
7	Check vibration eliminators. Replace as necessary.	✓		Mechanical
8	Document AMP draw on compressors			L1 L2 L3
9	Check safety controls for high pressure cut off.			
CONTROLS				
1	Record chilled water supply and return temps and Humidity .			

Note: The technician shall perform any repairs identified during PM up to \$250 (direct labor and direct material cost) per PM occurrence. For any deficiencies found exceeding \$250 open a corrective maintenance (CM) ticket and include the Asset #, WO #, photos, and a detailed discription of the deficiency.

To be performed by: HVAC Technician

**Additional Notes:**

## PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST HUMIDIFICATION SYSTEMS

MECHANIC  
SIGNATURE:


DATE: 11/22/19

START TIME:

0900

FINISH TIME:

1630

SITE AND BLDG #: MD019-01

LOCATION/RM #:

WO# 11173

ASSET # 2053

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Turn off water supply for inspection.			
2	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.			
3	Use of work gloves may be necessary due to caustic residual mineral deposits.			
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Operate humidistat through its throttling range to verify activation, or deactivation of humidifier.			
2	As needed, clean and flush condensate pans, drains, water pans, etc. Remove corrosion, and repaint or recoat as needed. If a corrosion preventive chemical is used, ensure that it does not become a part of the indoor air by creating large amounts of volatile organic compounds or irritants. Check the Safety Data Sheet (SDS) to see what hazardous products are present. If hazardous products are present rinse very well before the system is returned to use. Ensure that the paint lead level is 0.06% or less.			
3	Check condition of heating element. Clean steam coils.			
4	Clean steam/water spray nozzles. Adjust/replace as needed.			
5	Inspect steam trap for proper operation.			
6	Inspect pneumatic controller for air leaks.			
7	Inspect water lines for leaks and corrosion. Tighten all connections and repair leaks.			

Note: The technician shall perform any repairs identified during PM up to \$250 (direct labor and direct material cost) per PM occurrence. For any deficiencies found exceeding \$250 open a corrective maintenance (CM) ticket and include the Asset #, WO #, photos, and a detailed discription of the deficiency.

To be performed by: HVAC Technician

**Additional Notes:**