

**CERTIFICATION OF WORK
PREVENTIVE MAINTENANCE**

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

FACID/Building: _____ Date of Visit: 11/26/19

Contractor Personnel on Site:

- | | |
|----------|----------|
| 1. _____ | 3. _____ |
| 2. _____ | 4. _____ |

Work Performed:

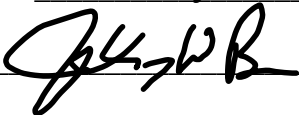
Preventive Maintenance - Services Completed (Annual, Quarterly, Monthly, equipment identification, etc.)

1. _____
2. _____
3. _____
4. _____
5. _____

CERTIFICATION OF WORK

To be signed by the Contractor:

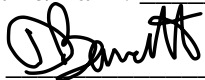
Print Name: Johnny W Brown Date: 11/26/19

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: Danielle Barrett Date: 11/26/19

Signed: 

E-Mail: _____

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST **AIR HANDLER**

SITE AND BLDG #: **DE00-01**MECHANIC
SIGNATURE: DATE: **11/26/19**

LOCATION/RM #: **1733**
 WO# **11164** ASSET # **1734**
1735

START TIME: **0900** FINISH TIME: **1630**

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.	<input checked="" type="checkbox"/>		
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Check fan blades and moving parts for cracks and excessive wear.	<input checked="" type="checkbox"/>		
2	Check running motor amperatures on all three phases (record in note column) notate L1, L2, and L3 amp draws.-Inspect contactors	<input checked="" type="checkbox"/>		L1 _____ L2 _____ L3 _____
3	Tighten all electrical connectors/lugs to proper torque.	<input checked="" type="checkbox"/>		
4	If unit is a multi-zone air handler, then check each individual zone damper and associated controls.	<input checked="" type="checkbox"/>	N/A	
5	Check bearing collar set screws on fan shaft to make sure they are tight.	<input checked="" type="checkbox"/>		
6	Replace filters quarterly, replace as necessary. Check belt, repair or replace as necessary.	<input checked="" type="checkbox"/>		
7	Check damper actuators and linkage for proper operation. Adjust linkage on dampers if out of alignment.	<input checked="" type="checkbox"/>	N/A	
8	Lubricate mechanical bearings and connections sparingly.	<input checked="" type="checkbox"/>		
9	Clean coils by brushing, blowing, vacuuming	<input checked="" type="checkbox"/>		
10	Check coils for leaking, tightness of fittings.	<input checked="" type="checkbox"/>		
11	Use fin comb to straighten coil fins.	<input checked="" type="checkbox"/>		
12	Report any equipment rust or condensate pan rust -IF found open CM	<input checked="" type="checkbox"/>		
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.	<input checked="" type="checkbox"/>		
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.	<input checked="" type="checkbox"/>		
15	Check rigid couplings for alignment on direct drives, and for tightness of assembly. Check flexible couplings for alignment and wear.	<input checked="" type="checkbox"/>		

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
17	Vacuum interior of unit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
18	Check filter doors and access doors for proper gasketing and air leaks. Correct as necessary.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
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.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
20	Clean up work area.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

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 **VARIABLE FREQUENCY DRIVE**

SITE AND BLDG #: DE00-01

**MECHANIC
SIGNATURE:**



DATE: 11/26/19

LOCATION/RM #: **WO#** 11164 **ASSET #** 1736
1737

START TIME: 0900

FINISH TIME: 1630

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
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.			
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Perform a complete visual inspection and cleaning. Broken or damaged parts are replaced as required. Inspected for ambient temperature, dust, dirt, moisture, evidence of overheating, corrosion, integrity, etc. Capacitors are checked for leakage. Conductors and parts are checked for proper insulation. Drives are cleaned using vacuum or compressed air as required. Filters are cleaned or replaced. Power connections are re-torqued to manufacturer's specifications.			

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

OUTDOOR CONDENSING UNIT

MECHANIC

SIGNATURE:



DATE:

11/26/19

START TIME:

0900

FINISH TIME:

1630

SITE AND BLDG #: DE007-01

LOCATION/RM #:

WO# 11164

ASSET #

1738,1740
1741
1742

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Schedule outage of unit with personnel in area the unit serves.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3	If disposal of the equipment is required, follow regulations concerning removal of refrigerants and disposal of the unit.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Remove debris from air screen and clean underneath unit.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	Wash coil with coil cleaning solution - Rinse Thoroughly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3	Straighten fin tubes with fin comb, as needed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4	Check electrical connections for tightness.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5	Check mounting base for tightness.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6	Inspect fans for bent blades, unbalance, excessive noise and vibrations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7	Inspect all piping for leaks and tighten loose connections.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8	Check wires at condenser electrical fused safety switches for tightness and burned insulation. Repair as necessary.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9	Check supply air temperature to ensure unit is operating properly. If possible record room temperature.and Humidity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Room temp <u>70</u> Room Humidity <u>50</u> %
10	Inspect unit for overall condition and recommend for replacement or other needed repairs.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11	Clean up work area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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 description of the deficiency.

To be performed by: HVAC Technician

Additional Notes:

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
AIR COOLED CHILLER, PACKAGE UNIT

MECHANIC
SIGNATURE:



DATE: 11/26/19

START TIME:

0900

FINISH TIME:















1630

SITE AND BLDG #: DE00-01

LOCATION/RM #:

WO# 11164

ASSET # 1739

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
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.			
TO BE PERFORMED AT EACH INSPECTION SERVICE				
CONDENSER				
1	Remove debris from air screen and clean underneath unit.			
2	Pressure wash coil with proper cleaning solution.			coils will be cleaned in the spring before start up
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.			
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.			
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.			
2	Lubricate motor bearings (non-hermetic), if applicable.			
3	Check bearings for vibrations or unusual noises.			
4	Leak test unit with soap test or electronic device.			
5	Check compressor oil level., if applicable.			unit disabled for the winter .
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.			S&S checked out system before shut down
7	Check vibration eliminators. Replace as necessary.			
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 DEHUMIDIFIER

MECHANIC
SIGNATURE:


DATE: 11/26/19

START TIME: 0900

FINISH TIME: 1630

SITE AND BLDG #: DE007-01

LOCATION/RM #: WO# 11164 ASSET # 1760

1761

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
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.			
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Check water inlet and outlet for any leaks, repair as needed.			
2	Clean and/or replace filter as needed. -Record space humidity			Space Humidity 48 %
3	If applicable, check hours per usage, replace tanks's as needed.			

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: General Maintenance Worker

Additional Notes: