



Air Source Unitary Heat Pump Functional Performance Test

Equipment ID	[Equipment ID]
Equipment Location	[Building]
Building	[Room]

System Description

Description:

100% outdoor air VAV air handling unit with DX cooling and hot gas reheat as well as supplemental electric heating and an air-to-air heat exchanger with an exhaust fan.

Operational Assumptions:

The system has been operating stably, in occupied mode with normal conditions prior to the start of the test.

Initial Test	Start Date	End Date	Initials
Results (Check one) <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Partial Test w/Corrective Actions <input type="checkbox"/> Complete Test w/Corrective Actions <input type="checkbox"/> Other	Explanation:		

Re-Testing	Start Date	End Date	Initials
Results (Check one) <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Partial Test w/Corrective Actions <input type="checkbox"/> Complete Test w/Corrective Actions <input type="checkbox"/> Other	Explanation:		

Deferred/Seasonal Test	Start Date	End Date	Initials
Results (Check one) <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Partial Test w/Corrective Actions <input type="checkbox"/> Complete Test w/Corrective Actions <input type="checkbox"/> Other	Explanation:		

Test Participants

Organization	Required	Optional
General Contractor	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mechanical Contractor	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Electrical Contractor	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TAB Contractor	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Controls Contractor	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Owner's O&M Personnel	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Supplies Required for Testing** (To be provided by the contractor)

Tools / Supplies	
Basic Tool Pouch	Calibrated Handheld Temperature and Humidity Sensor
Flashlight	Squeeze ball, tubing and 0-10" w.c. Magnehelic
Laptop with Terminal Control Programming	

System Readiness Summary Checklist

Description	Yes	No	Date
System Readiness Checklist (SRC) has been completed and is available for CxA review.	<input type="checkbox"/>	<input type="checkbox"/>	
Preliminary Test and Balance Reports have been completed and are available for CxA review.	<input type="checkbox"/>	<input type="checkbox"/>	
Trending data, reflective of approved programming and equipment operation, is available for CxA review.	<input type="checkbox"/>	<input type="checkbox"/>	

Set-Points, Limits, and Schedules☐ AHU can be assigned a schedule.☐ Schedule can be programmed daily.☐ If system runs 24 hours a day, check here. If not, fill in the occupied mode schedule below.

	AM												PM											
Day	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Sun																								
Mon																								
Tues																								
Wed																								
Thurs																								
Fri																								
Sat																								
Holi																								

Parameter	Set-point		Adjustable Range	
	Design	Actual	Design	Actual
Heating Supply Air Temperature (°F)	70			
Cooling Supply Air Temperature (°F)	74			
Heating Enable Outside Air Temperature (°F)	65			
Cooling Enable Outside Air Temperature (°F)	60			
Return Air Humidity (%)	60			
Dehumidification Supply Air Temperature (°F)	70			
Supply Air Temperature Heating/Cooling Deadband (°F)	Not Provided			
Heat Exchanger Frost Avoidance Temperature (°F)	Not Provided			
Supply Duct Static Pressure (in. w.g.)	1.00			
Space Static Pressure (in. w.g.)	0.80			

Trend Data Required To Support Testing

Verify what trending data was provided prior to functional testing.

Trending Points					
Pre-Testing	Post Testing	Point	Frequency	Duration	Provided
<input type="checkbox"/>	<input type="checkbox"/>	Occupancy	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Unit General Alarm	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Low Limit Alarm Status	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Condensate Overflow Alarm Status	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Supply Fan Status	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No



Trending Points					
Pre-Testing	Post Testing	Point	Frequency	Duration	Provided
<input type="checkbox"/>	<input type="checkbox"/>	Supply Fan Command	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Supply Fan Speed	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Supply Fan Fault	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Exhaust Fan Status	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Exhaust Fan Command	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Exhaust Fan Speed	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Exhaust Fan Fault	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Supply Duct Static Pressure	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Supply Duct Static Pressure Setpoint	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Space Static Pressure	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Space Static Pressure Setpoint	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Supply Air Temperature	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Supply Air Temperature Setpoint	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Heat Exchanger Leaving Air Temperature	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Return Air Temperature	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Return Air Humidity	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Return Air Humidity Setpoint	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Outside Air Temperature	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Outside Air Humidity	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Compressor 1 Output	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Compressor 2 Output	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Reversing Valve Position	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Outdoor Valve Control Output	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Hot Gas Bypass Valve Enable	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Hot Gas Bypass Valve Control Output	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Electric Reheat Output	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Compressor Staging	15 Minutes	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<input type="checkbox"/>	Relief Damper Position	COV	7 Days	<input type="checkbox"/> Yes <input type="checkbox"/> No

Initial Ambient Conditions

Ambient Conditions			
Outside Air Temp		Outside Air RH %	
Observations			

**Functional Performance Test --** (Verify all components are ready before energizing or operating the system.)

The Commissioning Authority will make and document any changes/addition/deletions to this test procedure required by current system conditions (i.e. weather, system load, utility availability, etc.).

R = Retest (Check (✓) retest required)

C = Corrected (Check (✓) when correction verified)

Y = Checked and Passed

N = Not Passed

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
PRE-TEST VISUAL MECHANICAL INSPECTION						
1. Observe initial operating conditions.	System is operating in occupied mode with no active alarms	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Pressure, Temperature and Humidity setpoints are being maintained	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Graphics are reflective of installation	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Select temperature and humidity sensor calibrations verified	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Control loops have been tuned	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Heat exchange is properly operating	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Optimal start verified through trending	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Heat Exchanger Frost Avoidance programming verified to be in place and damper control is functional with an acceptable frost avoidance temperature set point	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Equipment has been surveyed for damage and proper installation	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Notes				Initial	Date	
START/STOP CONTROL						
2. Schedule the AHU to be unoccupied from the BAS.	Supply fan shuts down	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	VAV dampers close	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	DX system shuts down	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
	Exhaust fan shuts down	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Toilet EF-1 shuts down	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Electric heating coil shuts down	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
3. Schedule the AHU to be occupied from the BAS.	Supply fan energizes and modulates to maintain its duct pressure setpoint	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Supply fan minimum runtime is programmed with acceptable user definable time	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Exhaust fan energizes and modulates to maintain its building pressure setpoint	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Toilet EF-1 starts up	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	DX system operates as necessary to maintain set points (supply temp and return humidity)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Heating coil operates as necessary to provide auxiliary heating	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Notes				Initial	Date	
TEMPERATURE AND HUMIDITY CONTROL						
4. Verify that the supply air temperature is maintained at set-point	DX system operates as necessary to maintain set points (supply temp and return humidity)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Compressor staging delays are in place and at acceptable user definable values	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Compressor minimum runtimes are in place and at acceptable user definable values	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarms for compressor excessive runtime are in place and at acceptable user definable values (Alarm is properly generated at BAS)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
	Heating coil operates as necessary to provide auxiliary heating	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
5. Create a call for heating by increasing the supply temperature set-point, but not more than 5 degrees above the current temp	Heating is only enabled when the OA temp is below 65°F	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Reversing valve is in heating position	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Compressors stage to maintain set point	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Overshooting and undershooting of set point are not observed	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Dehumidification mode is locked out during heating mode	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Supply temperature increases	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
6. Create a call for auxiliary heating by increasing the supply temperature set-point more than 5 degrees above the current temp	Compressors stage to maintain set point	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Electric reheat coil stages to maintain set point	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Overshooting and undershooting of set point are not observed	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Supply temperature increases	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
7. Create a call for cooling by lowering the supply temperature set-point below the current temperature	Reversing valve is in cooling position	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Compressors stage to maintain set point	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Electric heating is disabled	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Overshooting and undershooting of set point are not observed	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Supply temperature decreases	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
8. Reset the supply air temperature set point to its original value.	System operates as necessary to maintain set points	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
9. Create a call for dehumidification	Reversing valve is in cooling position	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
by lowering the return humidity set-point below the current return humidity	Compressors stage on fully	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Hot gas reheat is modulated to maintain supply air temperature set point of 70°F	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Overshooting and undershooting of set point are not observed	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Supply humidity decreases	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
10. Reset the return air humidity set point to its original value.	System operates as necessary to maintain set points	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Notes				Initial	Date	
AIRFLOW CONTROL						
11. Verify that the supply air duct static pressure and building static pressure setpoints are being maintained	Supply Fan VFD modulates to maintain supply air duct static pressure setpoint with stability	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Exhaust Fan VFD modulates to maintain building static pressure setpoint with stability	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	SF minimum speed set to 30%	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	EF minimum speed set to 20%	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarms for SF & EF excessive runtime are in place and at acceptable user definable values (Alarm is properly generated at BAS)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
12. Increase the supply air duct static pressure set point	Supply Fan VFD modulates to maintain supply air duct static pressure setpoint	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Exhaust Fan VFD modulates to maintain building static pressure setpoint	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
	Overshooting and undershooting of set point are not observed	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
13. Reset the supply air duct static pressure set point to its original value	Supply Fan VFD modulates to maintain supply air duct static pressure setpoint	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Exhaust Fan VFD modulates to maintain building static pressure setpoint	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Overshooting and undershooting of set point are not observed	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Notes				Initial	Date	
SAFETY AND ALARM CONTROLS						
14 Simulate SF and EF in Hand alarms	Alarms are generated at the BAS	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared at the BAS when the alarm situation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
15 Simulate SF and EF Failure alarms	Alarms are generated at the BAS	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared at the BAS when the alarm situation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
16 Simulate an internal AHU alarm	Alarm is generated at the BAS	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Sufficient information is provided (preferably at BAS) to determine source of alarm	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared at the BAS when the alarm situation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
17 Simulate SF and EF VFD faults	Alarms are generated at the BAS	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared at the BAS when the alarm situation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
18 Simulate High and Low Building Static Pressure Alarms	Alarms are generated at the BAS (High when 25% above stpt, Low when 25% below stpt)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared at the BAS when the alarm situation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
19 Simulate High and Low Supply Air Temperature Alarms	Alarms are generated at the BAS (High when above 120 F, Low when below 45 F)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared at the BAS when the alarm situation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
20 Simulate High and Low Return Air Temperature Alarms	Alarms are generated at the BAS (High when above 90 F, Low when below 45 F)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared at the BAS when the alarm situation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
21 Simulate a High Return Air Humidity Alarm	Alarm is generated at the BAS (when above 70%)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared at the BAS when the alarm situation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
22. Adjust High Supply Temperature Alarm Set-point 2°F below current supply temp	High Supply Temperature Alarm is generated at the BAS.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Unit continues normal operation	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
23. Release alarm set-point override	Alarm is cleared at the BAS	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Unit continues normal operation	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
24. Adjust Low Supply Temperature Alarm Set-point 2°F above current supply temp	Low Supply Temperature Alarm is generated at the BAS.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Unit continues normal operation	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
25. Release alarm set-point override	Alarm is cleared at the BAS.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Unit continues normal operation	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
26. Activate the high static safety using a squeeze ball, tubing and magnehelic.	System shuts down as previously tested	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is generated at the BAS	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	High static safety is activated at its set-point	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared and the AHU starts up when the safety is manually reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
27. Activate the dirty filter alarm using a squeeze ball, tubing and magnehelic.	Dirty Filter Alarm is generated at the BAS	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Dirty Filter Alarm is activated at its set-point	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm clears when the alarm simulation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
28. Activate the freezestat safety using a bag of ice.	System shuts down as previously tested	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is generated at the BAS	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared and the AHU starts up when the safety is manually reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
29. Simulate the activation of the smoke detector(s)	Alarm is generated at the BAS	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	System shuts down as previously tested	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	Alarm is cleared at the BAS when the simulation is reset	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Notes				Initial	Date	
RETURN TO INITIAL CONDITIONS						
30. Reset all set points to their original values and release any overrides placed into the system	System operates correctly based on automatic controls and current system conditions	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Notes				Initial	Date	

**Final Sign-Off**

Commissioning Agent	Printed Name	Initials	Date
CONTRACTOR	PRINTED NAME	INITIALS	DATE
General Contractor (GC)			
Mechanical Contractor (MC)			
Electrical Contractor (EC)			
TAB Contractor (TAB)			
Controls Contractor (CC)			
Owner's O&M Personnel			