TEST NO: 1
TITLE: Initial System Equipment Verification

OBJECTIVE: To verify that the hardware components of the system provided by the contractor are in accordance with the contract plans and specifications and all approved submittals.

1. Verify that model number of each component matches with model numbers of equipment provided by the contractor. YES _____ NO _____

AHU-4: Approved/Submitted Part # _____
Actual Part # _____

EF-6 & 7: Approved/Submitted # _____
Actual Part # _____

EF-8 & 9: Approved/Submitted # _____
Actual Part # _____

GP-1: Approved/Submitted Part # _____
Actual Part # _____

CH-1: Approved/Submitted Part # _____
Actual Part # _____

TU-B1/A1 Approved/Submitted Part # _____
Actual Part # _____

TU-B2/B3 Approved/Submitted Part # _____
Actual Part # _____

2. Verify DDC system does not restart system following a power outage. YES _____ NO _____

3. Restart equipment manually. Verify equipment has not sustained any damage. YES _____ NO _____ (note: list equipment that has sustained damage, if applicable).

Certification

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Role in inspection: _____
Signature: _____

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**NOTES:**

TEST NO: 2
TITLE: Air Cooled Chiller Sequence

OBJECTIVE: To demonstrate the air cooled chiller operation.

1. Verify that list of program inputs/outputs required in the project documents for this piece of equipment matches with the contractor supplied program. YES _____ NO _____

| | | | |
|---|---|---|---|
| CH-1 Points: | Start/Stop | YES _____ | NO _____ |
| | Status | YES _____ | NO _____ |
| | Smk Det, | YES _____ | NO _____ |
| | Alarm | YES _____ | NO _____ |
| | Run Time Totalizer | YES _____ | NO _____ |
| | CHS Temp Reset | YES _____ | NO _____ |
| | CHS Temperature | YES _____ | NO _____ |
| | CHR Temperature | YES _____ | NO _____ |
| | CHS Pressure | YES _____ | NO _____ |
| | CHR Pressure | YES _____ | NO _____ |
| | Amperes | YES _____ | NO _____ |
| | kW | YES _____ | NO _____ |
| | Flow | YES _____ | NO _____ |

2. Verify upon flow indication by chilled water sensor, the following equipment shall start with 10 second programmed delay between groups. YES _____ NO _____

| | | |
|---|---|---|
| AHU-2, 3 & 4 | Actual Delay _____ | seconds |
| EF-6 & 7 | Actual Delay _____ | seconds |
| GP-1 | Actual Delay _____ | seconds |
| CH-1 | Actual Delay _____ | seconds |

3. Verify chiller senses chilled water temperature above setpoint and control system activates chiller start. YES _____ NO _____

Setpoint _____ deg F Actual _____ deg F

4. Verify upon detection of smoke, fan shuts down. YES _____ NO _____

5. Verify smoke detection is sent to the fire alarm control panel. YES _____ NO _____

Certification

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**NOTES:**

TEST NO: 3
TITLE: Air Handling Unit 4

OBJECTIVE: To demonstrate the air handling unit operation.

1. Verify that list of program inputs/outputs required in the project documents for this piece of equipment matches with the contractor supplied program. YES _____ NO _____

| | | |
|---|---|---|
| AHU-4: | Start/Stop | YES _____ NO _____ |
| | Status | YES _____ NO _____ |
| | Smoke Detector | YES _____ NO _____ |
| | Run Time Totalizer | YES _____ NO _____ |
| | CHS Temperature | YES _____ NO _____ |
| | CHR Temperature | YES _____ NO _____ |
| | CHS Pressure | YES _____ NO _____ |
| | CHR Pressure | YES _____ NO _____ |
| | CHW Flow | YES _____ NO _____ |
| | Heater Lvg Air Temp | YES _____ NO _____ |
| | Room Temperature | YES _____ NO _____ |
| | SA Temperature | YES _____ NO _____ |
| | RA Temperature | YES _____ NO _____ |
| | Static Pressure | YES _____ NO _____ |
| | Delta Pressure Filter | YES _____ NO _____ |
| | Delta Pressure Coil | YES _____ NO _____ |

2. Verify upon airflow blockage indication by AHU cooling coil differential pressure switch, the following sequence shall ensue:

| | |
|---|---|
| Chilled water bypass valve opens | YES _____ NO _____ |
| Bypass duct motorized damper opens | YES _____ NO _____ |
| Supply air duct motorized damper closes | YES _____ NO _____ |
| Bypass electric duct heater is energized | YES _____ NO _____ |
| Electric duct heater maximum run counter is reset | YES _____ NO _____ |
| AHU supply fan remains on during defrost cycle | YES _____ NO _____ |

3. Verify upon indication of maximum run time being exceeded (DUE TO temperature sensor failure) by the heater maximum run timer, the heater power shall be killed. YES _____ NO _____

4. Verify upon indication of "coil above freezing" by AHU cooling coil temperature switch, the following sequence shall ensure. YES _____ NO _____

| | |
|---|---|
| Bypass electric duct heater de-energized | YES _____ NO _____ |
| Supply air duct motorized dampers opens | YES _____ NO _____ |
| Bypass duct motorized damper closes | YES _____ NO _____ |
| Chilled water bypass valve opens | YES _____ NO _____ |
| Electric duct heater maximum run timer de-energizes | YES _____ NO _____ |

5. Verify upon detection of smoke, DDC system shuts down fan. YES _____ NO _____

6. Verify smoke detection is sent to the Fire Alarm Control Panel. YES _____ NO _____

7. Verify 33 deg F set point on temperature sensor in dome. YES ____ NO ____

Certification

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Role in inspection: _____
Signature: _____

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Company name: _____
Role in inspection: _____
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**NOTES:**

TEST NO: 4
TITLE: Ice Wagon EF-8 & EF-9

OBJECTIVE: To demonstrate the Ice Wagon EFs operation.

1. Verify that list of program inputs/outputs required in the project documents for this piece of equipment matches with the contractor supplied program. YES _____ NO _____

| | | |
|---|---|---|
| EF-6, 7, 8 & 9: | Start/Stop | YES _____ NO _____ |
| | Status | YES _____ NO _____ |

2. Verify upon indication of IW-1 being energized, EF-8 shall energize. YES __ NO __

3. Verify upon indication of IW-2 being energized, EF-9 shall energize. YES __ NO __

4. Verify upon manual initiation of EF-9 damper switch, IW-2 motorized dampers shall close. YES _____ NO _____

5. Verify upon manual initiation of EF-9 damper switch, NESLAB exhaust duct dampers shall open. YES _____ NO _____

Certification

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**NOTES:**

TEST NO: 5 OBJECTIVE: To demonstrate the Air
TITLE: VAV Terminal Units VAV Terminal Units operation.

1. Verify that list of program inputs/outputs required in the project documents for this piece of equipment matches with the contractor supplied program. YES _____ NO _____

| | |
|---|---|
| Supply Air Velocity | YES _____ NO _____ |
| Supply Air Temperature | YES _____ NO _____ |
| Room Temperature | YES _____ NO _____ |
| Maximum Velocity Setpoint | YES _____ NO _____ |
| Minimum Velocity Setpoint | YES _____ NO _____ |
| Cooling Thermostat Setpoint | YES _____ NO _____ |

2. Verify upon low temperature (below 70 deg F) indication by sensors at EF-6 & 7, that TU-A1 and TU-B1 shall energize. YES _____ NO _____

TU-A1 setpoint _____ TU-A1 Actual _____
TU-B1 setpoint _____ TU-B1 Actual _____

**low temperature setpoint is 70 deg F

3. Verify upon glycol chiller energizing activates TU-B2 and TU-B3 start. YES ___ NO ___

4. Verify upon glycol chiller energizing indication, that TU-A1 and TU-B1 shall be energized. YES _____ NO _____

TU-A1 energized YES _____ NO _____
TU-B1 energized YES _____ NO _____

5. Verify upon glycol chiller enabling, that TU-A1 and TU-B1 CFM are monitored and totalized. YES ____ NO ____

TU-A1 setpoint CFM _____ TU-A1 Actual CFM _____
TU-B1 setpoint CFM _____ TU-B1 Actual CFM _____

**minimum CFM for each unit is 30% design CFM

6. Verify upon total CFM (of chiller condenser fan/TU-A1/TU-B1 CFM) being in excess of the 30% design CFM setpoint, that TU-B2 and TU-B3 will discharge excess air through exterior louvers on the north side of the building via TU-B2 and TU-B3. YES____ NO ____

Total setpoint CFM _____ Actual CFM _____

Certification

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**NOTES:**

| | | |
|---|---|---|
| TEST NO: | 6 | OBJECTIVE: To demonstrate the |
| TITLE: | Cabinet Heater | Cabinet unit heater operation. |

1. Verify upon low temperature (in excess of 3 deg F below 70 deg F setpoint) indication of the condenser air heating system by temperature sensor for the electric cabinet unit heater, that the electric cabinet unit heater shall be energized. YES _____ NO _____

Setpoint: _____deg F Actual: _____deg F

Certification

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**NOTES:**

TEST NO: 7 OBJECTIVE: To demonstrate the unit
TITLE: North Ice Wagon 2 monitoring

1. Verify that list of program inputs/outputs required in the project documents for this piece of equipment matches with the contractor supplied program. YES _____ NO _____

| | | |
|---|---|---|
| Ice Wagon 2: | CHS Temperature | YES _____ NO _____ |
| | CHR Temperature | YES _____ NO _____ |
| | CHS Pressure | YES _____ NO _____ |
| | CHR Pressure | YES _____ NO _____ |

Certification

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Name: _____
Company name: _____
Role in inspection: _____
Signature: _____

Name: _____
Company name: _____
Role in inspection: _____
Signature: _____

**NOTES:**

TEST NO: 8 OBJECTIVE: To demonstrate the unit
TITLE: Air Handling Units 2 & 3 monitoring

1. Verify that list of program inputs/outputs required in the project documents for this piece of equipment matches with the contractor supplied program. YES _____ NO _____

| | | |
|---|---|---|
| AHU-2 & 3: | Start/Stop | YES _____ NO _____ |
| | Status | YES _____ NO _____ |
| | Smoke Detector | YES _____ NO _____ |
| | Run Time Totalizer | YES _____ NO _____ |
| | CHS Temperature | YES _____ NO _____ |
| | CHR Temperature | YES _____ NO _____ |
| | Heater Lvg Air Temp | YES _____ NO _____ |
| | Room Temperature | YES _____ NO _____ |
| | SA Temperature | YES _____ NO _____ |
| | RA Temperature | YES _____ NO _____ |
| | Delta Pressure Filter | YES _____ NO _____ |
| | Delta Pressure Coil | YES _____ NO _____ |

Certification

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**NOTES:**