



## EQUIPMENT STARTUP CHECKLIST-

### Laboratory and Office Space Served By A Dual Fan, Double-Duct AHU

**Equipment type:** Dual fan, double-duct AHU

**Equipment designation:** AHU-1/SAFC-1

**Bar code designation:** 111111

#### ELECTRICAL INSPECTION

	YES	NO
• Electrical completed and disconnect installed per code compliance.	<input type="checkbox"/>	<input type="checkbox"/>
• Starter and wire sizing per contract documents.	<input type="checkbox"/>	<input type="checkbox"/>
• Motor "bumped" to verify rotation.	<input type="checkbox"/>	<input type="checkbox"/>
• Terminations and panel circuit labeled.	<input type="checkbox"/>	<input type="checkbox"/>
• Voltage and motor amps (per phase) documented.	<input type="checkbox"/>	<input type="checkbox"/>

#### ELECTRICAL INSTALLATION (PER CONTRACT DRAWINGS AND SPECIFICATION)

	YES	NO
• Ductwork complete.	<input type="checkbox"/>	<input type="checkbox"/>
• Piping complete at unit.	<input type="checkbox"/>	<input type="checkbox"/>
• Vibration isolation complete.	<input type="checkbox"/>	<input type="checkbox"/>
• Seismic restraints complete.	<input type="checkbox"/>	<input type="checkbox"/>
• Manufacturers' O&M available.	<input type="checkbox"/>	<input type="checkbox"/>
• Manufacturers' startup sheets attached with this checklist.	<input type="checkbox"/>	<input type="checkbox"/>
• Warranty certificate available.	<input type="checkbox"/>	<input type="checkbox"/>

#### DISTRIBUTION (TO AND FROM EQUIPMENT)

	YES	NO
• Ductwork pressure tested per contract documents.	<input type="checkbox"/>	<input type="checkbox"/>
• Piping pressure tested per contract documents.	<input type="checkbox"/>	<input type="checkbox"/>
• TAB report (and field notes) attached with this checklist.	<input type="checkbox"/>	<input type="checkbox"/>
• Identification per contract documents.	<input type="checkbox"/>	<input type="checkbox"/>

#### AUTOMATIC CONTROLS

	YES	NO
• Temperature controls complete.	<input type="checkbox"/>	<input type="checkbox"/>
• Control "points" confirmed.	<input type="checkbox"/>	<input type="checkbox"/>
• Electrical system interlocks complete.	<input type="checkbox"/>	<input type="checkbox"/>
• Unit-furnished controls interfaced with owner's BAS computer.	<input type="checkbox"/>	<input type="checkbox"/>

#### TRENDING

	YES	NO
• Trend outdoor air with mixed air and cold air supply temperature.	<input type="checkbox"/>	<input type="checkbox"/>
• Trend cold supply air with hot supply air and return air.	<input type="checkbox"/>	<input type="checkbox"/>
• Trend return air temperature.	<input type="checkbox"/>	<input type="checkbox"/>
• Trend VSD-1C, VSD-1H, and VSD-R.	<input type="checkbox"/>	<input type="checkbox"/>

#### REFERENCE

- *ASHRAE Handbook – 2004 Systems & Equipment*, Chapter 1, "HVAC System Analysis & Selection."
- *ASHRAE Handbook – 2004 Systems & Equipment*, Chapter 2, "Building Air Distribution."
- Refer to equipment manufacturers' literature for additional data and requirements.

#### DESIGN REVIEW / TRICKS OF THE TRADE

- Confirm there is safe access to the equipment.
- Confirm exhaust air will not short circuit into air intakes and/or other building openings.
- Confirm manufacturers' recommended clearances around equipment.
- Consider how routine maintenance can be achieved without shutting down the AHU-1.
- Attach equipment schedule and design criteria to checklist.
- Attach sequence of operation to checklist.
- Attach associated contract detail drawing to checklist. **ES**



If you have any comments, suggestions, or questions regarding this designer checklist, contact Amanda McKew at [amckew@rdkengineers.com](mailto:amckew@rdkengineers.com).

This column is meant to provide some basic guidelines for good design. Always consult all necessary codes and resources relevant to each particular project.

