



LABORATORY AND OFFICE SPACE SERVED BY A DUAL-FAN, DOUBLE-DUCT SYSTEM

— Commissioning And Project Closeout Checklist

Equipment type: AHU-1

Equipment designation: Dual-fan, double-duct supply air system

Bar code designation: 1111111C, 1111112, and 1111113

Area served: Laboratory facility

Equipment location: Central fan roof at column line A-141

BASIS OF DESIGN

- Review and confirm design intent has been met.
- Review and confirm control setpoints are within range of design criteria.
- Review BAS computer trending to date.

SPECIFICATION REVIEW

- Confirm Division 1 mechanical and electrical requirements (O&M manuals, record drawings, etc., have been submitted).
- Confirm Division 15 mechanical requirements have been met.
- Confirm Division 16 electrical requirements have been met.
- Confirm Division 17 building automation requirements have been met.

DRAWING REVIEW

- Confirm equipment complies with shop drawing submittal.
- Confirm equipment and distribution complies with standard details.
- Review trade contractor's punchlist.
- Review contractor startup sheets.
- Review building automation points list checkout.
- Complete site inspection punchlist.
- Review water balancing report data-to-actual performance (e.g., pressure gauge readings, flow meter readings).
- Review air balancing and temperature operating data (cfm/fan, discharge temperature/fan, and multipoint temperature readings across AHU-1 components).

BUILDING SYSTEM DEMONSTRATION

- Commissioning engineer facilitates FPTs.
- Spot-check system training during the FPTs.
- Spot-check O&M manuals during the FPTs.
- Confirm PM workorders are complete and ready to begin at time of certificate of occupancy.
- Confirm BAS computer predictive maintenance monitoring and workorder initiation is complete and ready to begin at time of certificate of occupancy.
- Maintain corrective action log and necessary retesting.
- Document noise levels per local code.
- Set and observe deferred seasonal FPT has been completed.
- Complete final commissioning report.

LEED® CERTIFICATION COMPLIANCE

- Complete recommissioning manual.
- Confirm system training has been completed and facility staff signoff on training class attendance.
- Confirm LEED® energy optimization software and associated system simulation is programmed and is trending.
- Confirm LEED measuring and verification plan is programmed and is trending.

- Confirm 10-month warranty meeting to revisit site and discuss lessons learned, etc.

DOCUMENTATION TO BUILDING MANAGER

- Transfer final commissioning report, including:
 - Basis of DID document;
 - Commissioning plan/specification (for future building program use);
 - Prefunctional performance test checklists;
 - Observation checklists;
 - Field reports;
 - "Continuous recommissioning" BAS computer process is in place (if applicable);
 - "Scrubbed" FPT narratives for future use;
 - Meeting minutes;
 - Project photograph log and associated photographs; and
 - Lessons learned meeting minutes.
- Transfer CAD-layered record drawings.
- Transfer CAD-layered facility management drawings.
- Transfer barcoded equipment, panel, and valve database.
- Confirm equipment, panels, and valves are barcoded.
- Post electrical one-line diagram (laminated) within AHU-1 service section.
- Post AHU-1 system flow diagram, space pressure flow diagram and TAB flow diagram (laminated) within AHU-1 service section.
- Transfer barcode scanner.
- Transfer Commissioning 1-2-3 electronic files.
- Transfer CMMS with/or equipment database.
- Transfer planned maintenance workorders.
- Transfer service contract.
- Transfer recommissioning manual.
- Transfer ownership of laptop or tablet computer with Internet access to AHU-1 and BAS computer for off-site monitoring.
- Transfer recommended operating budget.

CENTRAL EQUIPMENT

TERMINAL EQUIPMENT AND SPACE

PROJECT CLOSEOUT

If you have any comments, suggestions, or questions regarding this designer checklist, contact Amanda McKew at 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.

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