



Mechanical Compliance Certificate

90.1 (2007) Standard

Section 1: Project Information

Project Type: **New Construction**

Project Title : Christwood Laundry/Staff Dining

Construction Site:
100 Christwood Blvd.
Covington, LA 70433

Owner/Agent:
Don Mcmath
McMath Construction
1125 N. Causeway Blvd. Suite #2
Mandeville, LA 70471
985-624-9010
don@mcmathconstruction.com

Designer/Contractor:
Scott Morrison
Slidell Refrigeration & Metal Fab. Inc.
P.O. Box 5250
Slidell, LA 70469
985-643-1991
scott@slidellrefrigeration.com

Section 2: General Information

Building Location (for weather data): **Covington, Louisiana**
Climate Zone: **2a**

Section 3: Mechanical Systems List

Quantity	System Type & Description
1	HVAC System 1: Heating: Central Furnace, Electric, Capacity 102420 kBtu/h / Cooling: Split System, Capacity 150000 kBtu/h, Efficiency: 11.00 EER, Air-Cooled Condenser / Single Zone
1	HVAC System 2: Heating: Central Furnace, Electric, Capacity 32774 kBtu/h / Cooling: Split System, Capacity 36000 kBtu/h, Efficiency: 11.00 EER, Air-Cooled Condenser / Single Zone
1	HVAC System 3: Heating: Central Furnace, Electric, Capacity 51210 kBtu/h / Cooling: Split System, Capacity 120000 kBtu/h, Efficiency: 11.00 EER, Air-Cooled Condenser / Single Zone

Section 4: Requirements Checklist

Requirements Specific To: HVAC System 1 :

- 1. Newly purchased equipment meets the efficiency requirements
- 2. Equipment minimum efficiency: Split System: 9.7 EER (9.4 IPLV)

Requirements Specific To: HVAC System 2 :

- 1. Newly purchased equipment meets the efficiency requirements
- 2. Equipment minimum efficiency: Split System: 9.7 EER (9.4 IPLV)

Requirements Specific To: HVAC System 3 :

- 1. Newly purchased equipment meets the efficiency requirements
- 2. Equipment minimum efficiency: Split System: 9.7 EER (9.4 IPLV)

Generic Requirements: Must be met by all systems to which the requirement is applicable:

- 1. Load calculations per ASHRAE Fundamentals
- 2. Automatic Controls: Setback to 55 degrees F (heat) and 85 degrees F (cool); 7-day clock, 2-hour occupant override, 10-hour backup
 - Exception: Continuously operating zones
- 3. Hot water pipe insulation: 1 in. for pipes <=1.5 in. and 2 in. for pipes >1.5 in. Chilled water/refrigerant/brine pipe insulation: 1 in. for pipes <=1.5 in. and 1.5 in. for pipes >1.5 in. Steam pipe insulation: 1.5 in. for pipes <=1.5 in. and 3 in. for pipes >1.5 in.
 - Exception: Piping within HVAC equipment.
 - Exception: Fluid temperatures between 60 and 105 degrees F.

- Exception: Fluid not heated or cooled.
- Exception: Runouts <4 ft in length.
- Exception: Pipe unions in heating systems.
- 4. Thermostatic controls have 5 degrees F deadband
 - Exception: Thermostats requiring manual changeover between heating and cooling
 - Exception: Special occupancy or special applications where wide temperature ranges are not acceptable and are approved by the authority having jurisdiction.
- 5. Demand control ventilation (DCV) present for high design occupancy areas (>40 person/1000 ft2 in spaces >500 ft2) and served by systems with any one of 1) an air-side economizer, 2) automatic modulating control of the outdoor air damper, or 3) a design outdoor airflow greater than 3000 cfm.
 - Exception: Systems with heat recovery.
 - Exception: Multiple-zone systems without DDC of individual zones communicating with a central control panel.
 - Exception: Systems with a design outdoor airflow less than 1200 cfm.
 - Exception: Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is less than 1200 cfm.
- 6. Where separate thermostats are used for heating and cooling, acceptable measures are used to prevent simultaneous heating and cooling
- 7. Stair and elevator shaft vents are equipped with motorized dampers
- 8. Acceptable measures used to prevent simultaneous humidification and dehumidification
 - Exception: Desiccant systems and systems for uses requiring specific humidity levels (approval required)
- 9. Automatic controls for freeze protection systems present
- 10. Duct, plenum, and piping insulation surfaces suitably protected from weather, moisture, or likely damage
- 11. Duct Sealing: a) Pressure sensitive tape is not used as the primary sealant, b) longitudinal and transverse seams for ducts in unconditioned spaces, c) longitudinal and transverse seams and duct wall penetrations for ducts outside the building, d) transverse seams on buried ducts
- 12. Motorized, automatic shutoff dampers required on exhaust and outdoor air supply openings
 - Exception: Gravity dampers acceptable in buildings <3 stories
 - Exception: Gravity dampers acceptable in systems with outside or exhaust air flow rates less than 300 cfm where dampers are interlocked with fan
- 13. R-6 for supply air ducts located outside the building, in ventilated attics and in unvented attic above insulated ceiling R-3.5 for supply air ducts in unvented attic with roof insulation, unconditioned and underground spaces R-3.5 for return air ducts located outside the building, in ventilated attics and in unvented attic above insulated ceiling
- 14. Humidistat controls prevent reheating, recooling, and mixing of mechanically heated air with mechanically cooled air
- 15. Exhaust air heat recovery included for systems 5,000 cfm or greater with more than 70% outside air fraction or specifically exempted
- 16. Kitchen hoods >5,000 cfm provided with 50% makeup air that is uncooled and heated to no more than 60 degrees F unless specifically exempted
- 17. Buildings with fume hood systems must have variable air volume hood design, exhaust heat recovery, or separate makeup air supply meeting the following: a) 75% make up air quantity, and /or b) within 2 degrees F of room temperature and/or c) no humidification d) no simultaneous heating and cooling

Section 5: Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 3.7.1 and to comply with the mandatory requirements in the Requirements Checklist.

Scott Morrison

President

Signature

Date

12-4-2014

Section 6: Post Construction Compliance Statement

- HVAC record drawings of the actual installation and performance data for each equipment provided to the owner within 90 days after system acceptance.
- HVAC O&M documents for all mechanical equipment and system provided to the owner within 90 days after system acceptance.
- Written HVAC balancing report provided to the owner.

The above post construction requirements have been completed.

