



CARBON FOOTPRINT



AIR TERMINAL DEVICE WITH REHEAT: VAVRH-1

Date: November 2012

Building: Pharmaceutical or health care facility

Floor: Special procedure floor

Year installed: 1998

Inspected by: AEM

Serial number: 1110101028

Equipment Type: VAV with hot water reheat

Manufacturer: X-Y-Z

Model: VAVRH-1 through VAVRH 20

Size: 1,500 cfm



McKew is a senior project engineer with InterPro Solutions. Reach her at amckew@interprosoft.com.

EXISTING CONDITIONS AND DEFICIENCIES

| Y | N | NA | | Y | N | NA | |
|-------------------------------------|-------------------------------------|--------------------------|--|-------------------------------------|-------------------------------------|--------------------------|--|
| | | | HVAC | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is there access around equipment? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the primary inlet duct installed without obstruction/restriction? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is there any excess vibration at the unit? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is the VAVRH damper in good condition and is operator functional? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is the unit installed with isolators and seismic hangers? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the exterior enclosure in good condition? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Overall, does the unit have any air or water leaks? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is the unit discharge configuration acceptable? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Do all ATC devices appear in good condition? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the heating coil appear in good condition? | | | | ELECTRICAL |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is the duct insulation installation complete and in good condition? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Are the electrical connections complete (if electric controls)? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Air terminal and piping labeled with applicable tag and flow arrows? | | | | MAINTENANCE |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are the flow sensors installed and monitoring flow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | System flow diagram mounted in an appropriate space for quick reference? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are the temperature sensors installed and functioning? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | O&M manual secured at unit or on file? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the ductwork installed per detail? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Workorder last completed? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the HW piping installed per detail? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is there a service contract for the VAV boxes and/or associated ATC devices? |

END OF EQUIPMENT USEFUL SERVICE LIFE (USL)

| USL (YRS) | | USL (YRS) | |
|-----------|---------------------------|-----------|---------------------------------|
| 14 | Unit is 14 years old | 14 | Controls USL benchmark 14 years |
| 14 | Controls are 14 years old | 14 | Unit USL benchmark is 14 years |

STANDARDS AND CODE ISSUES

| Y | N | NA | | Y | N | NA | |
|-------------------------------------|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does unit meet current codes? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does unit/system meet current energy code? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is emergency power a requirement for AHU and the space served by the VAVRH? | | | | |

ENERGY CONSERVATION

| Y | N | NA | | Y | N | NA | |
|--------------------------|--------------------------|-------------------------------------|--|--------------------------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Maintain space pressure while fine tuning supply air temperature. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Provide balancer to verify air and water design flows and pressures are at optimum setting/performance. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Consider adding flow measuring stations on the AHU supply and return/exhaust air system. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Consider an unoccupied cycle to reduce air changes while maintaining space pressure, temperature control, and humidity control. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Consider adding VFDs to the AHU supply and return fans. | | | | |

NOTES

| Y | N | NA | | Y | N | NA | |
|-------------------------------------|--------------------------|--------------------------|--|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Unit basically operates 24/7 year-round. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Are there energy meters (gpm, etc.)? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Are unit controls interactive with building ATC/computer? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |