



CARBON FOOTPRINT

- Carbon Neutral
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CENTRAL HVAC UNIT Assessment

Date: February 2010
Building: Office building
Floor: Ground floor
Year installed: 1978
Inspected by: A. McKew, InterPro Solutions
Serial number: 11111
System type: Horizontal draw-through
Manufacturer: XXX
Model: XXX
Size: XXX
Hp: 10
Volts: 208/3/60

EXISTING CONDITIONS AND DEFICIENCIES

HVAC

- | | [Y] | [N] | [N/A] |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| • Is outdoor air louver and screen in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Are automatic dampers in good condition and operators functional? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is exterior enclosure in good condition? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Any contamination air issues (truck fumes, exhaust within 25 ft, etc)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Is filter enclosure in good condition and does it have magnehelic gage? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is preheat coil and/or face and bypass damper in good condition? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Is gas/oil furnace in good condition? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Is fan section in good condition? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Is fan belt guard installed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is fan discharge configuration acceptable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is piping in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is ductwork in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is humidifier in good condition and functional? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Is unit insulation in good condition? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Pipe insulation is in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Ductwork insulation is in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Overall, unit is clean, no vibration, or noise? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Unit installed with isolators and seismic hanger/supports? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Overall, unit doesn't have air or water leaks? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • All ATC devices appear in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Electrical

- | | [Y] | [N] | [N/A] |
|------------------------------------|-------------------------------------|--------------------------|--------------------------|
| • Is motor high efficient type? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is there a localized disconnect? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Does the unit have VSD module? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Plumbing

- | | [Y] | [N] | [N/A] |
|---|-------------------------------------|--------------------------|-------------------------------------|
| • Are there floor drains to serve the unit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Are gas vents piped to outdoors? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Is gas piping in good condition? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Maintenance

- | | [Y] | [N] | [N/A] |
|--|-------------------------------------|--------------------------|-------------------------------------|
| • System flow diagram mounted by unit? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • O&M manual secured at unit or on file? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Workorder completed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

END OF EQUIPMENT USEFUL SERVICE LIFE (USL)

Year		Year	
1978	Motor is 18 years old	20	USL benchmark
	Controls are 16 years old	15	USL benchmark
	Coils are 20 years old	16	USL benchmark
	Unit is 31 years old	20	USL benchmark

STANDARDS AND CODE ISSUES

- | | [Y] | [N] | [N/A] |
|--|--------------------------|-------------------------------------|-------------------------------------|
| • Does unit have economizer cycle? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Does unit have duct smoke detectors (SA, RA, EA)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Is unit up to current health care design guidelines? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Does unit/system meet current energy code? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

ENERGY CONSERVATION

- | | [Y] | [N] | [N/A] |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| • Are there energy meters (run-time, etc.)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Consider a more energy efficient alternative? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Can unit/system be retrofitted to meet latest energy code? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Consider constant volume system retrofit to VAV? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Consider double-duct system retrofit to dual fan double-duct? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Consider replacing pneumatics with DC? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

NOTES

- Can unit be readily removed/replaced? Yes.
- Does unit operate 24/7 year-round or seasonal? No. Set occupied/unoccupied scheduling to be implemented.
- Are unit controls interactive with building ATC/computer? Yes. Add trending data for outside air, discharge air, return air, and mixed air. **ES**



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