



CARBON FOOTPRINT



ENERGY RECOVERY UNIT: ERC-1/ERC-DOAS



Date: November 2011
Building: K-12 Educational facility
Floor: Ground floor
Year installed: 2011
Inspected by: AEM
Serial number: 1110101028
Equipment Type: ERV with water-to-water energy recovery coil
Manufacturer: X-Y-Z
Model: ERCP
Size: 80 gpm
Hp: 30 hp
Volts: 460/3/60

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				ELECTRICAL
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is unit in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is a high-efficiency motor installed?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there sufficient capacity/water flow?	<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"/>	Is there sufficient capacity/airflow?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the pump have a VSD?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Has pressure testing of pipe distribution been completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are the electrical starters (pump and unit) labeled?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the pump/piping system show signs of water leaks?				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the unit casing show signs of air leaks?				PLUMBING
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the insulation installation complete for piping?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there localized drains near the equipment?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the insulation installation complete for coil casing and unit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there a manual propylene glycol fill and remote holding tank installed?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Equipment and piping labeled with applicable tag and flow arrows?				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flow sensors installed and monitoring flow?				MAINTENANCE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature sensors installed and functioning?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	System flow diagram mounted by unit?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the piping installed per detail?	<input type="checkbox"/>	<input checked="" 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 there access around equipment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Workorder completed?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there any excess vibration at the energy recovery pump?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there a service contract for the pump and unit?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there any excess vibration at the energy recovery unit?				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All ATC devices appear in good condition?				

END OF EQUIPMENT USEFUL SERVICE LIFE (USL)

USL (YRS)		USL (YRS)	
1	Motor is x yrs old	20	Motor USL benchmark is _
New	Controls are new DDC	16	Controls USL benchmark is _
New	Unit is new serving existing HVAC system	20	Unit USL benchmark is _

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?				

ENERGY CONSERVATION

Y	N	NA		Y	N	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	End of USL, replace with new VSD high-efficiency pump?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Consider DDC to optimize control system management
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Can unit/system be retrofitted to meet latest energy code?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rebalance water system

NOTES

Y	N	NA		Y	N	NA	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Can equipment be readily renovated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Are unit controls interactive with building ATC/computer?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Unit basically operates 24/7/365.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Are there energy meters (gpm, etc.)?