



## CARBON FOOTPRINT

Carbon Neutral

# AIR TERMINAL DEVICE WITH REHEAT: VAVRH-1, FPBRH-1

**Date:** August 2012  
**Building:** Residential central hot water system  
**Floor:** Basement  
**Year installed:** 1986  
**Inspected by:** AEM  
**Serial number:** 111010293  
**Equipment Type:** Cast iron boiler  
**Manufacturer:** X-Y-Z  
**Model:** CB-111  
**Size:** 200 MBtuh  
**Volts:** 120/1/60



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### EXISTING CONDITIONS AND DEFICIENCIES

Y	N	NA		Y	N	NA	
			<b>HVAC</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Overall, unit is clean, no vibration, or noise?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the unit installed per details?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All ATC devices appear in good condition?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the piping insulation complete and in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the domestic hot water system in good condition?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there asbestos in the heating system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are circulators in good conditions with no leaks?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there sufficient working pressure gauges?				<b>ELECTRICAL</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there sufficient temperature sensors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the motor a high-efficiency model?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are temperature sensors reading accurately?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there a localized disconnect?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there signs of leaks in water, fuel, or combustion exhaust?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the unit have VSD pump? N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there valve tags and a valve chart?				<b>PLUMBING</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are drain lines piped directly to drains?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there localized drains to serve the unit?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is piping insulation in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there water make-up w/backflow preventer?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is flue and breeching insulation in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are gas vents piped to outdoors?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is barometric damper in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the city water PRV in good condition?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there a combustion air source?				<b>MAINTENANCE</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the room under negative pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	System flow diagram mounted by unit?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there seismic supports/hangers?	<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 there vibration isolation on the unit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Workorder last completed?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there access around equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there a service contract for this unit?

### END OF EQUIPMENT USEFUL SERVICE LIFE (USL)

USL (YRS)		USL (YRS)	
25	Cast iron section boiler is 26-yr-old	20	Controls are 26-yr-old
20	Domestic hot water tank and receiver are 26-yr-old		

### 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 higher-efficiency unit (condensing boiler?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Consider occupied/unoccupied modes
<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 checked="" type="checkbox"/>	Consider domestic hot water system

### NOTES

Y	N	NA		Y	N	NA	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Can unit be readily removed/replaced/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. Does unit operate 24/7, year-round, occupied/unoccupied, or seasonal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Are there energy meters for (gpm or electrical) consumption?