

The facility personnel implemented these recommendations and are now saving 11.2% of their baseline energy usage every year



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Aurora Hospice – Site Visit Notes

March 10, 2009

Brian Basken

1. One large McQuay 20,000 CFM RTU, 6 compressor DX, with 35 VAV boxes. DDC controlled.
2. Alerton DDC Controls
3. Two small Aeon 100% outside air RTUs supply air into patient room corridors. Air is exhaust through patient room toilet exhaust. Patient rooms have re-circulating fan coils for temperature controls. 50°F-70°F discharge air reset.
4. McQuay ton air cooled chiller. Does not have communications to BAS. Oversized, only one compressor normally runs. Chiller compressor cycles to maintain supply water between 40°F and 56°F. Second stage of cooling is locked out. The 56°F seems kind of high, not much dehumidification will occur at cooling coils.
5. Chilled water pumps have manually controlled VFDs. System has 3-way bypass valves.
6. Two negative pressure patient rooms with DDC controls. Other patient rooms have stand-alone thermostatic control.
7. Two Patterson Kelley boilers, 940,000 BTUs. HW reset schedule is 190°F @ 0°F, 150°F @ 60°F. One redundant boiler.
8. Boiler room make up fan is extremely large and appears unnecessary. The boilers are sealed combustion, so there is no need for ventilation air in that space.
9. System pumps controlling to 10 psi. 63.8% speed.
10. Four exhaust fans.
11. Kitchen hood with heat in make-up. Dishwasher hood is exhaust only.
12. Recommendation: Use time of day schedule to unoccupy VAV boxes at night when spaces are not used.
13. Recommendation: Add simple spring wound timer to kitchen exhaust hood/make up fan and dishwasher exhaust hood.
14. Recommendation: Improve discharge air temperature reset on patient room ventilation units.
15. Recommendation: Add supply air temperature reset and supply duct static pressure reset on VAV system, using feedback from VAV boxes.
16. Recommendation: Add communications to chiller from BAS. Reset supply water setpoint higher when load is light.



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17. Recommendation: Add occupancy sensors to lightly occupied spaces to reduce energy usage when they are not occupied.
18. Recommendation: Try lowering the hot water reset schedule, especially the low hot water temperature. Half of the year, the system will be operating at that temperature.