



# BEST PRACTICES TO IMPROVE ENERGY PERFORMANCE

## ACUTE CARE AND CHILDREN'S HOSPITALS • LOW-COST O&M CHECKLIST

Use the following checklist of low-cost O&M practice to identify opportunities, assign responsibility and track progress toward goals at your facility.

|                                                                         | Opportunity<br>Exists | Target<br>Reduction | Who is<br>Responsible? | Target Date to<br>Complete | Actual Date<br>Completed | Notes |
|-------------------------------------------------------------------------|-----------------------|---------------------|------------------------|----------------------------|--------------------------|-------|
| OPERATIONS & MAINTENANCE                                                |                       |                     |                        |                            |                          |       |
| Ensure all equipment is functioning as designed                         |                       |                     |                        |                            |                          |       |
| Calibrate thermostats                                                   |                       |                     |                        |                            |                          |       |
| Adjust dampers                                                          |                       |                     |                        |                            |                          |       |
| Implement janitorial best practices                                     |                       |                     |                        |                            |                          |       |
| Properly maintain existing equipment                                    |                       |                     |                        |                            |                          |       |
| Review ENERGY STAR Registry of Labeled Buildings for ideas              |                       |                     |                        |                            |                          |       |
| OCCUPANTS' BEHAVIOR                                                     |                       |                     |                        |                            |                          |       |
| Turn off equipment                                                      |                       |                     |                        |                            |                          |       |
| Institute an energy awareness program                                   |                       |                     |                        |                            |                          |       |
| Adopt a procurement policy for ENERGY STAR qualified equipment          |                       |                     |                        |                            |                          |       |
| Maximize use of daylight                                                |                       |                     |                        |                            |                          |       |
| Install task lighting                                                   |                       |                     |                        |                            |                          |       |
| Train staff                                                             |                       |                     |                        |                            |                          |       |
| LIGHTING                                                                |                       |                     |                        |                            |                          |       |
| Change incandescents to CFLs                                            |                       |                     |                        |                            |                          |       |
| Change T12s to T8 or T5                                                 |                       |                     |                        |                            |                          |       |
| Install occupancy sensors in back-of-the house, infrequently used areas |                       |                     |                        |                            |                          |       |
| Install high efficiency LED exit signs                                  |                       |                     |                        |                            |                          |       |
| Periodically clean the bulbs with a dry cloth                           |                       |                     |                        |                            |                          |       |
| De-lamp where illumination is excessive                                 |                       |                     |                        |                            |                          |       |
| Only use lights that are needed                                         |                       |                     |                        |                            |                          |       |

|                                                                                                               | Opportunity<br>Exists? | Target<br>Reduction | Who is<br>Responsible? | Target Date to<br>Complete | Actual Date<br>Completed | Notes |
|---------------------------------------------------------------------------------------------------------------|------------------------|---------------------|------------------------|----------------------------|--------------------------|-------|
| KITCHENS                                                                                                      |                        |                     |                        |                            |                          |       |
| Pre-heat ovens no more than 15 minutes prior to use                                                           |                        |                     |                        |                            |                          |       |
| Keep refrigerator coils clean and free of obstructions                                                        |                        |                     |                        |                            |                          |       |
| Bleach clean with warm water                                                                                  |                        |                     |                        |                            |                          |       |
| Use fan hood only when cooking                                                                                |                        |                     |                        |                            |                          |       |
| Purchase ENERGY STAR commercial cooking equipment                                                             |                        |                     |                        |                            |                          |       |
| COMPUTERS AND OFFICE EQUIPMENT                                                                                |                        |                     |                        |                            |                          |       |
| Utilize power down feature on computers                                                                       |                        |                     |                        |                            |                          |       |
| Purchase ENERGY STAR office equipment                                                                         |                        |                     |                        |                            |                          |       |
| Install energy control devices on vending machines                                                            |                        |                     |                        |                            |                          |       |
| HVAC AND PLANT SYSTEMS                                                                                        |                        |                     |                        |                            |                          |       |
| Adjust thermostats for seasonal changes and occupancy                                                         |                        |                     |                        |                            |                          |       |
| Balance air and water systems                                                                                 |                        |                     |                        |                            |                          |       |
| Replace boiler burners                                                                                        |                        |                     |                        |                            |                          |       |
| Unblock air flow from unit ventilators                                                                        |                        |                     |                        |                            |                          |       |
| Clean centrifugal chiller water tubes                                                                         |                        |                     |                        |                            |                          |       |
| Clean and repair chilled water plants or package units                                                        |                        |                     |                        |                            |                          |       |
| Repair leaking steam traps                                                                                    |                        |                     |                        |                            |                          |       |
| Repair pipe and vessel insulation from steam and hot water distribution lines                                 |                        |                     |                        |                            |                          |       |
| Repair malfunctioning dampers on unit ventilators                                                             |                        |                     |                        |                            |                          |       |
| Chemically treat feedwater                                                                                    |                        |                     |                        |                            |                          |       |
| Annually test combustion efficiency                                                                           |                        |                     |                        |                            |                          |       |
| Clean and lubricate moveable surfaces and check actuator movement and set-points in the damper and economizer |                        |                     |                        |                            |                          |       |
| Perform boiler tune-ups                                                                                       |                        |                     |                        |                            |                          |       |
| Clean filters and fans                                                                                        |                        |                     |                        |                            |                          |       |
| Clean air conditional evaporator and condenser coil fins                                                      |                        |                     |                        |                            |                          |       |
| Align and adjust belts                                                                                        |                        |                     |                        |                            |                          |       |

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| <b>HVAC AND PLANT SYSTEMS (CONTINUED)</b>                   |                        |                     |                        |                            |                          |       |
| Check for air leaks in equipment cabinets and ducts         |                        |                     |                        |                            |                          |       |
| Ensure proper operation of air damper                       |                        |                     |                        |                            |                          |       |
| Clean condenser and evaporator coils                        |                        |                     |                        |                            |                          |       |
| Properly charge refrigerant                                 |                        |                     |                        |                            |                          |       |
| Install VFDs and energy efficient motors                    |                        |                     |                        |                            |                          |       |
| <b>FANS</b>                                                 |                        |                     |                        |                            |                          |       |
| Clean fan blades                                            |                        |                     |                        |                            |                          |       |
| Inspect bearings                                            |                        |                     |                        |                            |                          |       |
| Adjust/change belts                                         |                        |                     |                        |                            |                          |       |
| Check fan current                                           |                        |                     |                        |                            |                          |       |
| <b>BUILDING ENVELOPE</b>                                    |                        |                     |                        |                            |                          |       |
| Regularly inspect doors and windows for air leaks           |                        |                     |                        |                            |                          |       |
| Periodically inspect building for water leaks               |                        |                     |                        |                            |                          |       |
| Check the caulking and weather stripping for leaks          |                        |                     |                        |                            |                          |       |
| <b>WATER HEATING</b>                                        |                        |                     |                        |                            |                          |       |
| Adjust water temperature to lower legal limit               |                        |                     |                        |                            |                          |       |
| Periodically check the hot water systems for leaks          |                        |                     |                        |                            |                          |       |
| Test the burners of gas or oil fired water heaters annually |                        |                     |                        |                            |                          |       |
| Periodically flush fixtures to prevent bacteria growth      |                        |                     |                        |                            |                          |       |
| Annually flush storage-type hot water tanks                 |                        |                     |                        |                            |                          |       |
| Periodic maintenance on the hot water system                |                        |                     |                        |                            |                          |       |
| Install or repair pipe insulation                           |                        |                     |                        |                            |                          |       |



April 2006  
XXX-X-XX-XXX

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