Utilities Management Plan:
The purposes/goals of the MUSC Energy Management function are as follows:
1. Minimize expenditures for energy by identifying and employing techniques that reduce energy consumption and costs.
2. Operate equipment in a fashion that provides maximum satisfaction to the user.
3. Operate equipment in a manner that insures maximum longevity.
4. Maintain historical data to verify and forecast consumption and costs.

The JC85-40 system consists of "stand alone" 9100 controllers located in equipment rooms in the Children’s Wing, Teaching Hospital, Clinical Science Building, Administration Building, and Basic Science Building. These DSC’s are linked to our main computer on the third floor of the Teaching Hospital through a fiber optics network.

The system controls or monitors the following items.
1. Air Handlers
   a. Supply fan status
   b. Return fan status
   c. Exhaust fan status
   d. Supply air temperature, pressure, and humidity
   e. Heating coil temperature
   f. Cooling coil temperature
   g. Filter status
   h. Enthalpy control
   i. Differential volume
   j. Dampers
   k. Outside air temperature and humidity
   l. Hot and cold deck temperatures
   m. Zone discharge temperatures
   n. Zone temperature
   o. Night low limits
   p. High space temperature
   q. Filter status
   r. Electric heat strip status
   s. Building static pressure
   t. Pre-heat temperature

2. Operating Rooms
   a. Status – occupied/unoccupied
   b. Temperature
   c. Humidity

3. Isolation Rooms
   a. Pressure mode- positive/negative
   b. Temperature

4. Pediatric Labs
   a. Supply mode – constant/variable volume
   b. Static pressure
   c. Temperature
UTILITIES MANAGEMENT PLAN CONTINUED:

5. Chilled Water Systems
   a. Lead/lag chiller selection
   b. Chilled water pumps (primary and secondary)
   c. Secondary chilled water temperature and flow
   d. Chilled water reset
   e. Chilled plant optimization

6. Chillers
   a. Status – on/off
   b. Heat recovery temperature
   c. Chilled water temperature – supply/return
   d. Fan status
   e. Condenser water temperature – supply/return
   f. kW consumption
   g. Chiller load

7. Hot Water Systems
   a. Converter status – on/off
   b. Hot water temperature - supply/return
   c. Pump status – on/off
   d. Flow
   e. Secondary chill water supply temperature

8. Electric meters – kW consumption for the Children’s Wing, Teaching Hospital, Clinical Science Building, Administration Building, Basic Science Building, and the main Bee Street Sub Station.

9. Boiler System
   a. Boiler status – on/off
   b. Steam pressure
   c. Feed water flow, temperature and pressure
   d. Condenser water temperature
   e. Make up water flow rate and temperature
   f. High water level
   g. Oil temperature and flow
   h. Flue gas temperature and oxygen level
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Engineering & Facilities | January 1, 2006 |
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