David Miller Mechanical Advisor – Dr. James D. Freihaut 12/12/08

## **Breadth Description**

## Electrical

Due to the shift and decrease in electricity consumption of the cooling system, feeders to and from the motor control center will be directly affected. Thus, these feeders will be resized. Electricity usage will decrease and be shifted which will affect operating cost.

## Construction Management

The proposed design allows the unique opportunity to compare economic and energy advantages between systems. A cost analysis will be prepared that takes into account construction cost, including new equipment and labor, and operating cost. It is hypothesized that the proposed redesign will have a greater first cost due to complexity and more equipment, but a lesser operating cost will allow for an agreeable payback period.