

Coil and Tube Restoration Drive 21% Energy Savings for Howard University Hospital

CHALLENGE

Howard University Hospital is a 300-bed, Level 1 Trauma Center located in Washington, D.C. The main building houses 29 air handling units (AHU), all approximately 50 years old and underperforming. Many AHUs were struggling to comply with required air changes per hour (ACH) in accordance with ASHRAE Standard 62.1. The hospital needed a cost-effective and long-lasting, viable solution to address the operational AHU inefficiencies, and a more aggressive approach to attack aging, fouled coils. Of significant concern were nine AHUs serving the hospitals Operating Rooms and Intensive Care Units.

SOLUTION

AQUIS presented its innovative Coil and Tube Restoration process to the Howard University Hospital Facilities team, outlining its unique approach for eliminating biofilm from heavily impacted coils. Coil and Tube Restoration improves operational efficiency and HVAC system cooling capacity, and provides an opportunity for measurable energy savings. William Appling, Howard University Hospital's Director of Facility Management Services, decided to partner with AQUIS. Priority was given to the nine AHUs of most critical importance, and AQUIS conducted an Energy Study on two of them.

RESULTS

Appling and his internal stakeholders were thrilled with the results of the Energy Study of the two AHUs:

- 14% average increase in total cooling capacity
- 10% increase in airflow
- 21% in potential energy savings
- Payback period of less than one (1) year

These compelling results allowed the hospital to secure funding for Phase II of the project, where AQUIS was given the go-ahead to perform Coil and Tube restoration on the remaining 20 AHUs.

“My number one takeaway after working with AQUIS was peace-of-mind - not only for me, but for the internal stakeholders. AQUIS Coil and Tube Restoration was a perfect fit for our needs. Start to finish, the project was flawless thanks to their knowledgeable sales team, energy engineer, and installation team. We could see the immediate impact; the data doesn't lie. A week after the project was completed, we passed our air exchange rate tests with flying colors.”

-William Appling
 Director of Facility Management Services
 Howard University Hospital

ENERGY STUDY

Cooling Capacity Increase of Two AHUs

AHU-1 and AHU-2 Total Cooling Capacity

