

Project Summary

The focus of this visit was gaining an understanding of the store's HVAC system, current performance, and issues to be evaluated by our team for possible improvement. NTAB will have made any necessary changes that would allow for immediate improvement to the equipment's performance. Found below are details regarding each asset and the overall facility. The store consisted of two Trane RTUs, one Lennox RTU, one upblast kitchen exhaust fan, one downblast restroom exhaust fan, one make-up air unit and one kitchen hood.

Rear Kitchen RTU 1

The rear kitchen rooftop unit is performing within the design window, 4091CFM with a target of 4000CFM. NTAB sped this unit up as it was initially outputting 3497CFM. This increase in speed should contribute to a more comfortable space and efficient RTU.

Front Kitchen RTU 2

The front kitchen rooftop unit is underperforming. This unit was initially found to be supplying 3312CFM airflow. This was increased to 3990CFM, which should increase store comfort and efficiency. The blower wheel was found to be very dirty. It is recommended that the blower is thoroughly cleaned as well as ensuring the unit filters and coils are also clean and clear of debris. Rectifying these items should further increase unit output and performance.

Dining RTU 3

The dining area rooftop unit is performing within the design window, 4023CFM with a target of 4000CFM. No changes were made to this unit; however, a final filter change would be optimal as they are beginning to get clogged with dirt and debris. Maintaining clean filters ensures the evaporator coils and blower wheels remain clean and operational.

Make-Up Air

The make-up air unit was found to be off upon arrival with the cover removed. The unit appears to be fully operational but was left in the off position as the RTUs are bringing in sufficient outside air.

Kitchen Hood

The kitchen hood and respective exhaust fan are working well. The exhaust fan speed was reduced by approximately 10%. This increased the efficiency of the hood system, and maintained 100% smoke and grease capture.

Restroom Exhaust

The restroom exhaust fan was found to be not running. The fan was powered, and the motor was hot to the touch. This motor will likely be damaged even if the fan is freed. Recommend further evaluation of the exhaust fan. NTAB left this unit off at its rooftop disconnect to avoid further damage.

Summary of Recommendations

1. All RTU – Replace final filters. They are beginning to pickup debris and clean filters will prevent the evaporator coil and blower wheels from becoming dirty and clogged.
2. Front Kitchen RTU – Recommended that the blower wheel be thoroughly cleaned as it reduces system performance when dirty. Ensure all filters and coils are also clean and clear of debris.
3. Service EF-2 (Restroom exhaust). The fan is not operational in its current state. Resolving this will assist in restroom comfort and odors.