

## Project Summary

Upon arrival to site, the building pressure was found to be  $-0.0162''$ . This was causing the doors to be difficult to open and was causing discomfort within the space. The thermostats were already programmed on arrival and the units were running in occupied mode.

There are four rooftop exhaust fans at this location, currently only two of them are functional. PRV 2 and PRV 3, serving the two kitchen hoods, are operating within design parameters. These fans were not adjusted. PRV 1 serves the restrooms and was found to be receiving 120V, but the motor is not moving. This fan was left off at the disconnect switch on the fan. PRV 4 serves the dishwasher hood and was found to have a wall switch near the manager's office, but even when turned on and receiving 120V this fan also does not run. PRV 4 was left off at the disconnect switch on the fan.

There are two ceiling mounted exhaust fans at this store. One is located above the mop sink and does not function. The other is in the employee restroom. This fan is running but has a buildup of dust and other debris that is restricting airflow. Cleaning of this restroom exhaust fan is recommended.

There are a total of three Rooftop Units at this location. RTU-1 serves the dining room. RTU-2 serves the kitchen. RTU-3 serves only to condition outside air and feed it into RTU 1&2, this unit is also referenced as RTU-OA for this reason. RTU 1 & 2 are operating in similar conditions. The fan blades have a buildup of debris and should be cleaned. The evaporator coils are just beginning to build up some debris and should be rinsed to prevent issues in the future. The outside air dampers are not functioning correctly. Upon arrival at the site, they were both closed. NTi was able to open the dampers enough to pressurize the space but the dampers still require service to achieve full range of motion. Both fans were maximized by turning in the motor pulleys as much as safely possible.

The Outside Air RTU was found to be underperforming. Initially only outputting 1374CFM on a 13T unit (LCH156). Some freezing was found on the evaporator coil, and the fan blades were found to have a buildup of debris. The final filters were removed, return air bypass was confirmed to be closed, and the motor pulley was maximized. This resulted in a final airflow of 1728CFM. The restriction is suspected to be within the supply ductwork as the discharge pressure was measured at  $+1.08''$ . Units in this configuration often measure  $+0.20''$  or less. NTi inspected the supply drop (pictures can be found in the Site Photos section of the report) as well as the return drops for the other RTUs but no apparent restrictions could be seen. It is recommended to locate and relieve any restrictions between the RTU-OA supply and the RTU 1&2 returns.

The increased airflow of RTU-OA combined with setting the outside air dampers on RTU 1&2 did increase the building pressure to  $+0.0026''$ , making the doors much easier to open. It is recommended to thoroughly clean all three RTUs (fan blades & evaporator coils) as well as inspect the ductwork connecting RTU-OA to RTU-1 & RTU-2 ensuring it is sufficient to supply 1000CFM to each unit. Repair of PRV1, PRV4, and the mop sink exhaust fan is also recommended.