

Swanlund Administration Building #0193



Building Gross Area: 33,805 sq.ft.

Retrocommissioning Jun. 2015– Sep. 2015

Team Visit Period:

Principal Building Use: Offices, Conference rooms

Building & Occupant Overview

This building was constructed in 1983. It is a seven story building with primarily offices and conference rooms. The building has two VAV air handling units with pneumatic VAV boxes. There are two hot-water boilers serving the fin-tube radiators and the reheats for AHU2. AHU1 has VAV boxes without reheats. Both air handling units are served by DX cooling via air cooled condensing units. There are five exhaust fans located in the penthouse mechanical room exhausting air from conference rooms and office spaces apart from restroom exhaust (roughly 2,370 cfm). Campus chilled water is piped to the building and capped at the chilled water entrance in the basement for future connection.

Retro-commissioning Specifics & Results

The air handling units were running 24/7 previously and occupancy schedules were implemented to shut off the units when the building is unoccupied. The kitchen and restroom exhaust fans were connected to the Siemens system to enable shutting them off during unoccupied periods. The five exhaust fans in penthouse mechanical room serving the conference rooms and offices were decommissioned to avoid exhausting air from conference rooms. Connected the restroom and/or kitchen exhaust fans to the Siemens system and scheduled to shut off when the building is unoccupied. The hot-water boilers were not firing properly, so the amount of combustion air into the boiler room was increased per manufacturer's recommendations.



Project Highlights

- Implemented occupancy schedules for all air handling units
- Performed complete air balance on system at both the VAV and air handling unit level and reduced air flows wherever possible.
- De-commissioned five exhaust fans (2,370 cfm) in the building that were not required
- Scheduled the restroom and/or kitchen exhaust fans
- Installed Static Outside Air Probe (SOAP) to monitor building pressure and added programming to keep building pressure slightly positive.
- Improved the operation of hot-water boilers
- Assisted the Refrigeration Shop to modify the staging of the compressors on condensing units so that they operate more efficiently.
- Installed occupancy sensors to control lighting in select offices.