Everitt Lab #0037

Building Gross Sq.Ft.: 124,246

Retrocommissioning Team Visit Period: Sep 2014—Nov 2014

Principal Building Use: Classroom, Clean room and Laboratory

Building & Occupant Overview

Everitt Electrical and Computer Engineering Laboratory is a center for research and classroom education, featuring lecture halls and classrooms, clean rooms, an anechoic chamber, and a wide variety of laboratories. The building was originally built in 1946 and is currently 124,246 sq. ft. Several additions have been added on in the 60's. Construction of several basement clean rooms took place in the 80's. The building is connected to the central campus chilled water loop and has a functioning chilled water meter presently. There are 17 air handling units; most of them are constant volume units. The basement clean rooms are served by 4 air handling units located in basement level. One has ben shut own since the space is now empty. The rest of the basement rooms and all of the first, second, and third floor rooms are supplied by air handling units that are located in either the first floor mechanical room or the third floor mechanical rooms. Clean room 50J is supplied by an OA makeup unit (AHU15) and a re-circulating unit (AHU14). There are two cooling towers located on the Northeast roof of the building. There are five steam-to-hot-water heat exchangers in the building for the perimeter radiation systems and the reheat systems.

The facility's total metered energy during FY14 was 53,004 MMBTU.

Retrocommissioning Specifics & Results

As the Department of Electrical and Computer Engineering moved to the newly constructed Electrical and Computer Engineering Building in the summer of 2014, Everitt Lab will be used as home of the Department of Bioengineering and additional engineering classroom space in the future after the remodel project. The clean rooms and most classrooms are still in operation. Other function have ceased. Prior to the Retro-commissioning visit, there was a DDC controls up-grade to the air handling units (AHU) and heat exchangers. The AHUs were operating 24/7 prior to the controls upgrade, but a schedule has been implemented. Ventilation provided to spaces that are no longer in operation were cut off. Some of the outdated VFDs were replaced. The pneumatic lines and control valves were inspected for proper operation and faulty equipment were fixed.

- Modified existing scheduling to better match building usage
- Outdated VFDs were replaced in AHUs
- Calibrated all sensors and transducers
- Leaks in pneumatic lines were fixed
- Ventilation provided to spaces no longer in operation was cut off
- A time-clock with an override switch has been incorporated into the operation of AHU17 that serves the large tiered classroom.
- Unused fume hood exhaust systems were shut off.