University Health Services: Tang Center

2222 Bancroft Way

Consultation Date: 1/23/13

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Tang Energy Dashboard: http://bit.ly/UHStang

Background

The Tang Center has taken high priority in the health and care for students over the last 20 years. The building is occupied by over 200 people and has streams of people coming in daily for treatment. Not only are the occupants of the building concerned with the health of individuals, but also the health of our planet. Richard Padilla, Tang's Building Manager, is part of a three person Green Team at UHS that has been very active in taking measures to reduce energy use. Tasks so far have included; minimizing lighting, making efforts to purchase energy efficient appliances, and equipment.

Lighting

Richard is very interested to expand occupancy sensor lighting in key areas. He also reported that the lead custodian is very conscientious about turning off lights when areas are not in use. Richard pointed out some areas that are being overlit and pointed out spaces where many lights are only turned half on during operating hours. Richard aslo expressed interest in a lighting retrofit to reduce ballast wattage.

Several offices, hallways, and rooms have overhead lighting as well as natural lighting that result in a very bright space. Many of these rooms had task lamps also, but did not utilize them.

While all halogen floor and task lamps have been eliminated, the optometry display cases are still outfitted with what appears to be halogen bulbs.

During our walk through we provided several stickers on equipment and lighting to give reminders to people to switch off lights when leaving a room.

Recommendations

- ☐ Continue utilizing natural light as much as possible.
- ☐ Consider using task lamps as a substitute to overhead lighting; ensure that task lamps are equipped with LED or compact fluorescent bulbs.
- ☐ Look into replacing halogen bulbs with CFLs or LEDs in the Optometry showcases.
- ☐ Look into lighting retrofit and/or sensor lighting funding (possibly through The Green Iniative Fund – TGIF)

Thermal Comfort

Richard, along with other anecdotal reports from occupants, stated that was kept at comfortable temperatures. Richard has control of the HVAC through the building's management system. Some areas on the outer perimeter rooms with no overhangs to block the sun were notably warmer than the rest of the building. In some of these areas the windows were open even though the HVAC system was running. Some occupants have personal fans to cool office spaces, although none were observed in use during our visit.

Recommendations

- ☐ Dress in appropriate layers for weather changes.
- ☐ Look into possible zone heating or cooling for the reported warmer areas.

Computers & Printers

Tang center houses its own IT and servers on-site. Most of the servers for the building are located on the third floor. Wireless printer connections were seen for the majority of

the offices in the building, almost all of the printers were on sleep mode or energy save mode.

Computer monitor shut-off is highly encouraged throughout the building not only for energy savings, but also as a patient privacy measure.

Recommendations

- ☐ Aviod screensavers, they don't allow LCD monitors to enter sleep mode.
- ☐ Keep vents & fans clean and unblocked to help them run more efficiently and to extend the life of the computer.
- ☐ Increase the brightness and bump up the contrast on monitors.
- ☐ Continue using shared printers whenever possible.
- ☐ Turn off or unplug any chargers or peripherals when not in use.

Kitchenette

Multiple kitchenette areas are throughout building along with one full kitchen. There is a good deal of newer refrigeration equipment throughout.

Many smaller appliances (microwaves, toasters, tea kettles, etc.) were observed left plugged in.

Freezers were reported to be defrosted regularly.
We did see one exceptionally old microwave that could be replaced by a newer, more energy-efficient model.

Recommendations

- ☐ Consolidate lesser used refrigerators where possible.
- ☐ **Unplug** appliances after use, or put them on a power strip and **turn off** the entire strip when done.
- ☐ Continue defrosting freezers regularly.

- ☐ Place reminder stickers conspicuously to remind occupants to unplug appliances when not in use.
- ☐ Assign someone on each floor or department to turn off lights and power strips at the end of the day.
- ☐ Continue keeping items off the tops of fridges. This allows the fridge to work less and for heat to escape.

Other Areas

There are two of vending machines in the building that are reported to be running constantly. Vending machine misers may be of interest to reduce their energy costs by up to 46%.

Lab equipment like centrifuges & autoclaves might be able to utilize lab reminder stickers.

During the survey, we discussed the possibility of putting some equipment such as ultrasound gel warmers and the hydrocollator on timers. Since these items are not used 24 hours a day, but do require a warm up time they could feasibly be shut down from 7pm – 3am.

Recommendations

- ☐ Utilize a Vending Machine Miser: http://bit.ly/VeNd
- ☐ Investigate the feasibility if timers on ultrasound gel warmers and the hydrocollator.
- ☐ Look into placing (myPower provided) shut-off reminder stickers on lab equipment.

Further Resources

- ☐ Keep stocked with stickers to prompt energy conservation. Visit the myPower Resource Center in 192 Barrows.
- ☐ Become a Power Agent: bit.ly/PowerAgents
- ☐ myPower office tips available at: mypower.berkeley.edu/takeaction/office.html
- ☐ Get rid of old or underutilized electronics at Berkeley Overstock and Surplus: businessservices.berkeley.edu/overstock