User/Domain Research of 4 Georgia Tech Facilities Workers

Worker Positions

-Electrician

-HVAC

-Maintenance I

-Maintenance II

**Describe the physical environments you work in.**

Confined spaces

Dusty

Outside

Dirty

Mechanical and boiler rooms

Class rooms and offices

Above ceiling

Inside walls

**Describe sounds and noises of you environment.**

Echoes through buildings

Can hear construction sever buildings away

HVAC produces own sound

Lights are silent, but ballast makes noise

Background sounds from adjacent rooms

Mechanical rooms with larger motors and pumps are louder

Pump room needs ear protection because noise above 85 dB

Noises from machinery can be helpful with troubleshooting – ex: loose belt

Bigger building, louder background noise

Fun fact: Occupancy light sensors emit a high frequency sound that most can’t hear, but one woman on campus can.

**What aspects of your job are physically, mentally, or sensory demanding?**

Must be aware of surrounding, otherwise can be injured

Working in walls, ceiling and crawl spaces require being in a leaning, crawling position, or on a ladder

Knees, back, feet, head are at risk for fatigue or injury

Live wires

Falling off ladders

Slipping/falling

Student and staff are around workers

Often work in pairs so one person can look out for students

Mentally taxing working with students interfere with fenced off work environment

Some students are adamant about walking in certain areas, even if closed off for safety

Must around professors and classes

**Describe strategies/procedures/ tools needed to do everyday job.**

Common carpentry tools (hammer, screwdriver…etc)

Aspirator

Calendar to schedule around classes (larger classes and labs are closed weekly for an hour for preventative maintenance)

Biggest tool: coordination with fellow workers

**What problems do you regularly encounter trying to complete task?**

Students

Scheduling time that does not interfere with students and faculty

No standardization of equipment installed ( ex: lights fixtures cad bulbs can vary within a building)

Designer of parts do not take maintenance and fixing into account. Ex: lights on Bobby Dodd are only available in France, requiring an 8-week delay in fixing

People want to bring the latest and greatest equipment, but it’s not necessary or is not compatible with current technology on campus, or is immature (there currently is not a person to check for this)

People report problems that are not actually issues, the equipment works differently than expected

**Are there any environmental (non-people) related problems you encounter?**

Being too large in a smaller space

Tunnels, fake walls, and deep man-holes (most are identified now, but not all). Some people would disappear for a day in these places

Environmental health and safety takes care of environmental hazards

Newly added harness system for roof work ( use to not have)

Precarious stairs

Buddy system is key

**Would you be (un)comfortable wearing a portable piece of computing on your person?**

We already do wear equipment (ex: safety glasses, atmospheric monitor on belt)

Don’t want to wear it because it’s new and great. It must actually help do the job

Cannot get in the way of getting job done

Use on limited occasion

PPE- Personal Protection Equipment

Needs to be the size/weight of smart phone or less