#### SUNY OSWEGO ENVIRONMENTAL HEALTH AND SAFETY

## RESETTING ELECTRICAL PANELS IN RESIDENCE HALLS DUE TO OVERLOAD PROGRAM

| Program Number | Original Effective Date | Revision Number - Date |
|----------------|-------------------------|------------------------|
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|                |                         |                        |

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#### 1.0 PURPOSE

The purpose of this program is to provide instructions for resetting electrical panels in residence halls.

#### 2.0 APPLICABILITY

This program applies to Residence Hall Directors, Residence Hall Assistant Directors, and any other employees properly trained to identify and reset an electrical overload condition.

#### 3.0 REFERENCES

29 CFR 1910 – OSHA Standards for General Industry

**NFPA 70E** – Standard for Electrical Safety in the Workplace.

#### 4.0 RESPONSIBILITIES

- 4.1 <u>Director Environmental Health and Safety</u> is responsible to ensure Residence Hall Directors and Residence Hall Assistant Directors receive the training necessary to reset electrical panels in a safe manner.
- **Environmental Health and Safety** will provide guidance on the selection of required personal protective equipment. **Supervisors** are responsible to provide and ensure that required personal protective equipment is properly used and maintained in good condition.
- **4.3** Residence Hall Directors and Residence Hall Assistant Directors are responsible to:
  - 4.3.1 Abide by all safety and health rules, work practices, and regulations.
  - 4.3.2 Use all required safety devices and personal protective equipment.
  - 4.3.3 Perform work tasks in a safe manner, and do not take unsafe "short cuts".

#### 5.0 PROCEDURE

#### 5.1 Training

5.1.1 Only trained Residence Hall Directors and Residence Hall Assistant Directors shall reset a tripped circuit breaker in an electrical panel.

5.1.2 Training will be provided by the Environmental Health and Safety Department and conducted to the level necessary to allow the Resident Hall Directors and Residence Hall Assistant Directors to identify an overload condition and reset a tripped circuit breaker in an electrical panel only when an overload condition exists.

#### 5.2 Residence Hall Director or Other Properly Trained Employee

- 5.2.1 When electrical power is reported out in a specific room, go to that room to determine the potential source of overload condition (i.e., hair dryer, curling iron). An overload condition will result in a circuit breaker being tripped.
- 5.2.2 If it appears there is an overload condition, go to the electrical panel. Otherwise, contact the Maintenance Department at 312-3200.
- 5.2.3 Prior to opening the electrical panel, it is mandatory to don Hazard Category 0 clothing selected by using NFPA 70(E) Protective Clothing and Personal Protective Equipment (PPE) Matrix. See 5.2.4 for required PPE.
- 5.2.4 Prior to opening the electrical panel, it is mandatory to don personal protective equipment including safety glasses/goggles and untreated natural fiber clothing (long sleeve shirts and pants.
- 5.2.5 Open electrical panel corresponding to affected room.

#### **WARNING**

IF A LOCKOUT/TAGOUT LABEL IS PRESENT ON THE AFFECTED BREAKER, STOP. DO NOT TOUCH ANY BREAKERS. CALL THE MAINTENANCE DEPARTMENT AT 312-3200.

- 5.2.6 If no lockout/tagout label is present on the affected breaker, identify if the tripped breaker is in the "overload" position. If more than one breaker is in the tripped position call the Maintenance Department at 312-3200.
- 5.2.7 If the circuit breaker has not been tripped return to the room and check to see if there is a power strip that has a safety device that is tripped. Some power strips are designed to trip before the circuit breaker. If this is not the case call the Maintenance Department at 312-3200.

- 5.2.8 If the tripped breaker is in the "overload" position, go to affected room and unplug all cords in the room. Complete Checklist in Appendix A Damaged or frayed cords shall be taken out of service immediately.
- 5.2.9 Return to electrical panel and turn breaker to the off position prior to resetting it to the "on" position.
- 5.2.10 If the breaker trips while you are attempting to reset it Stop immediately and call the Maintenance Department at 312-3200.
- 5.2.11 Ensure the electrical panel is secure.
- 5.2.12 Return to room and plug in cords.
- 5.2.11 Document the event on an iServiceDesk request at iServiceDesk.oswego.edu.
- 5.2.14 If the overload condition happens again, call the Maintenance Department at 312-3200.

#### 6.0 **DEFINITIONS**

- 6.1 <u>Circuit Breaker</u> A type of overcurrent device which will interrupt the flow of current in a circuit. These devices shut off electricity flow in the event of an overload or a short circuit. To prevent too much current in a circuit, a circuit breaker or fuse is placed in the circuit. If there is too much current in the circuit, the breaker "trips" and opens like a switch. If an overloaded circuit is equipped with a fuse, an internal part of the fuse melts, opening the circuit. Both breakers and fuses do the same thing: open the circuit to shut off the electrical current
- 6.2 <u>Circuit Overload</u> An overload occurs when the current running through an electrical circuit exceeds safe levels, usually due to an unexpected power surge or running too many appliances on the same circuit. If too many devices are plugged into a circuit, the current will heat the wires to a very high temperature, which may cause a fire.
- **Electrical Panel** A component of an electricity supply system which divides an electrical power feed into subsidiary circuits, while providing a protective fuse or circuit breaker for each circuit, in a common enclosure.

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- **6.4** <u>Hazard Category 0 Clothing</u> Long sleeve shirt and long pants made of non-melting material, untreated fiber such as cotton.
- **6.5** <u>Lockout/Tagout</u> A safety procedure which is used to ensure that power sources are properly shut off and not started up again prior to the completion of maintenance or servicing work.
- Interrupt the flow of current in a circuit. Overcurrent devices protect equipment from heat. Opens the circuit when the flow exceeds the capacity. The basic idea of an overcurrent device is to make a weak link in the circuit. In the case of a fuse, the fuse is destroyed before another part of the system is destroyed. In the case of a circuit breaker, a set of contacts opens the circuit. Unlike a fuse, a circuit breaker can be re-used by re-closing the contacts. Fuses and circuit breakers are designed to protect equipment and facilities, and in so doing, they also provide considerable protection against shock in most situations. However, the only electrical protective device whose sole purpose is to protect people is the ground-fault circuit-interrupter
- 6.7 <u>Overload Condition</u> A situation where a larger than intended electric current exists through a conductor, leading to excessive generation of heat and the risk of damaging infrastructure and equipment and causing fires.
- 6.8 Overload Position Commonly referred to as a Tripped Breaker the breaker will not be in the on or off position but will be tripped half way between.
- **Short Circuit** An electrical circuit that contains no resistance to limit the flow of current.
- 6.10 <u>Tripped Circuit Breaker/Tripped Breaker</u> Shows that too much current is flowing in a circuit (overload). This could be due to several factors, such as too many items being plugged into the circuit, malfunctioning equipment or a short between conductors. You need to determine the cause in order to control the hazard.

#### 7.0 <u>ATTACHMENTS</u>

Appendix A – Dormitory Room Inspection for Overloaded Circuits/Tripped Breakers

### Appendix A

## Dormitory Room Inspection For Overloaded Circuits/Tripped Breakers

# Dormitory Room Inspection Checklist for Overloaded Circuits/Tripped Breakers

Residence Hall Name:

Date: \_\_\_\_\_

| Inspe  | ctor: Room(s) Numbers:  |  |
|--|---|--|
| Have you reported this breaker before? Y / N If so, when |   |  |
| Y/N  | Did you check every power cord and outlet for damage (i.e. frayed or cut cords, burned or melted outlet covers, staples, grounding pins missing, etc.)  |  |
| Y/N  | Did you ensure there are no cords under carpets or pinched by furniture?  |  |
| Y/N  | Did you ensure there are no daisy chained extension cords?  |  |
| Y/N  | Did you ensure all extension cords are UL approved with breaker/fuse.   |  |
| Y/N  | Did you ensure there are no overloaded extension cords?   |  |
| Y/N  | Did you check for unauthorized appliances 1/.   |  |
| Y/N  | Did you make sure light bulbs are correct wattage for lamps? (All UL-Listed lamps have wattage specifications near the bulb socket to tell you what size bulb is the maximum recommended. If no indication is on the product, do not use a bulb with more than 60 watts.) |  |
| Y/N  | Did you ask occupants what triggered the power outage? (i.e. turned on hair dryer or other electrical device?)  |  |
|  | Please write down the triggering device:  |  |
|  | Be Sure to Wear Proper Personal Protective Equipment Safety glasses and untreated Natural Fiber Clothing  |  |
| 1/   | Pamindar: Itams such as microwaya ayan, taastar/taastar ayan. Tarshigra styla halagan lamas, air.   |  |

Reminder: Items such as microwave oven, toaster/toaster oven, Torchiere-style halogen lamps, air conditioners, other cooking appliances, such as: sandwich makers, grilling machines, hot plates, slow cookers and crock pots are not allowed in dorm rooms.

IF ALL RESPONSES ARE YES AND A TRIGGERING EVENT HAS BEEN DETERMINED, PROCEED WITH RESETTING THE BREAKER.

If the breaker trips while resetting, or if it trips again Call Maintenance Immediately x 3200 or 3117after hours.

After completing the iServiceDesk request - forward this checklist to the Maintenance Operations Office ASAP:

Fax: x3166

**Mail: Maintenance Operations, Building #12** 

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