

# Standard Operating Procedure

## Title: SOP-029 Electrical Components

**PI:** Art Erdman **Lab Location:** Mayo G217

**Issue Date:** 5/5/14 **Revision Date:** NA

**Prepared by:** Alex Cherwinka **Approved by:** Rich Oliphant

### **Hazard Identification:**

#### **Physical Danger**

### **Exposure Assessment:**

#### **Electricity**

- The electrical components are capable of electrical shock due to the supplied voltages from the equipment they are connected to. There is a risk of equipment damage which can occur if a short circuit is created or if the correct voltage is not applied, along with other specifications. There is also a risk of burns due to over-heated components. Caution should be taken while electrical components are connected to a power source.

### **Control Plan:**

- Read and become familiar with operating procedures and specifications before operating
- Always know where the power off switch is located in case of emergency
- Be aware of static shock as this can damage certain electrical components
- Power source should always be off when not in use
- Always disconnect the circuit from the power source before servicing, repairing, or making any adjustments
- Wear protective garments as needed

### **Experimental Procedures:**

- Put on all safety equipment and tie back loose hair or clothing before operating
- Check to make sure all components are working and functioning properly
- While power is off, set up wires, make sure circuit is complete
- When ready, turn on power source
- Set power source to exact specifications for circuit
- Make sure calculations are correct for circuit to prevent circuit and equipment damage
- When finished testing, turn off power before making any adjustments to circuit
- Disconnect circuit and place all wires and other equipment back in the appropriate place
- Clean workspace

For other inquiries, see the User Manual in Appendix. Or Instruction Manual located next to machine.

***Waste Management Procedures:***

When finished with electrical components, always clean the area. Paper towels and cleaning solution can be found in G217-11. Dispose of debris appropriately.

Place all materials back in the appropriate place.

***Spill and Accident Procedures:***

If an accident occurs, report immediately to the lab supervisor (G217-05) or other appropriate staff member. If no one is around, dial 911 on the landline phone near the door of G217-11 to reach the campus police. The lab first aid kit is located on the wall near the sink. A first aid pamphlet from DEHS is located in all of the MDC's first aid kits.

***Appendix:***