8.0 **Electrical Safety**

8.1 Portable Equipment, Tools, and Appliances

All portable devices must be UL listed for the application they are to be used. In addition, tools that are not double insulated and appliances with metal housings must be grounded. Electrical cords must be free from damage, unauthorized repairs, and deterioration. Portable tools or devices used in wet or damp locations or near a source of water must be protected by a ground fault circuit interrupting outlet or adapter.

8.2 Fixed and Hardwired Equipment

Non-portable equipment wiring and connections must meet the requirements of the National Electrical Code and MIOSHA Part 39. A local disconnect capable of being locked out must be provided. All persons performing maintenance and repairs must be qualified and authorized by the University to do so and follow all the applicable provisions of the University Hazardous Energy Control Program.

8.3 Electrical Welding Equipment

All electrical welding equipment must meet the requirements of the Michigan General Industry Safety Standard Part 12 for welding and cutting.

8.4 Extension Cords

The use of extension cords is restricted to portable equipment intended to be moved from place to place. Items which are capable of being moved, for example a desktop computer, but are part of a fixed work station are not considered portable. Surge protection devices are not considered to be extension cords when used to protect sensitive electronics.

Extension cords may not be used as an alternative to fixed wiring or to extend the existing electrical supply capacity of a work area. Instead, a request should be made to the Facilities Department to install additional outlets.

Never combine extension cords end to end and always verify that an extension cord is rated for the maximum capacity of the load to be applied and for the environment in which it is to be used. Do not run an extension cord under carpeting or where it will be damaged or cause a tripping hazard.

8.5 Electrical Safety-Related Work Practices

Employees who face a risk of electrical shock that is not reduced to a safe level by the installation design must be trained in the safety-related work practices that pertain to their respective job assignments and the requirements of MIOSHA Safety Standard Part 40. Job titles of employees typically requiring such training include but are not limited to:

electrical and electronics engineers, electrical and electronics technicians, electricians, equipment operators, welders, painters, and their supervisors. Training and work practice requirements specific to these employees can be found in the University Electrical Safe Work Practices Plan.

Unauthorized persons shall not tamper with electrical fuse boxes, alter existing wiring, or install electrical wiring. Facilities Management authorizes, in writing, those personnel specifically permitted to work on campus electrical circuits. All electrical wiring installation, service, and maintenance will be performed in accordance with the National Electrical Code and MIOSHA General Industry Standard Part 39.