



For the protection of Steward Observatory employees, the following guidelines regarding electrical safety have been developed. An electrical safety program must be implemented in accordance with the OSHA standard, Subpart S, for workplace safety when dealing with electrical safety. This OSHA website is shown below for your convenience. OSHA 29 CFA requires safe work practices be utilized when working on or near exposed energized parts. The Steward Observatory employees are to comply with Section 1910.132(d) which requires employers to assess the workplace to determine if hazards are present, and if present, must select proper personal protective equipment to protect employees and must provide proper training for the use of the equipment.

All electrical wiring and equipment shall comply with the National Electric Code (NEC). Below are some of the general work rules established by Steward Observatory for its employees.

1. Employees are not permitted to work on or near any part of an electric power circuit that the employee could come in contact within the course of their work. Circuits should be de-energized and the required lockout/tagout procedure performed. If an employee must work on an energized circuit, they are required to have the proper arc flash PPE and follow the arc flash procedures.
2. In areas where the exact location of underground electric power lines is unknown, employees using tools which could come in contact with an underground power line shall be provided with insulated gloves. Before digging, always call Arizona Blue Stake at 1-800-782-5348 or go to www.azbluestake.com
3. Working spaces, walkways and similar locations must be kept clear of electrical cords to eliminate hazards.
4. Worn or frayed electric cords should **not** be used. Additionally, cords should **not** be fastened with staples, hung from nails, or suspended by wires.
5. Plugs equipped with grounding prongs must have the prong in place.
6. Only trained persons should perform work related to their area of expertise on circuits of 30 volts AC or 50 volts DC or greater. By definition, a Qualified Person is someone familiar with the construction and operation of the equipment and the hazards involved, and who can demonstrate knowledge of the technical and safety issues in the use and maintenance of the equipment involved.
7. The two-person rule should be in effect while work is completed on these circuits and lockout/tagout procedures implemented.
8. On call-ins, the two-person rule will be in effect. If the call-in pertains to power loss to any portion of a building or site, a site electrician must be present in order to restore power to the site, especially if entrance to a high-voltage area is required.
9. Non-grounding adapters are not to be used without approval from the site electrician.



10. When high voltage equipment is being operated or is present, "High Voltage" signs must be displayed. High voltage is defined for this purpose, as voltage above 240 volts AC.
11. Do not open or close an electrical switch unless you are familiar with its purpose.
12. All new wiring installations must be made or reviewed by a qualified electrician.
13. Ground Fault Circuit Interrupts (GFCI) must be utilized with power equipment such as pumps and power tools, if they are to be utilized when working around water or on outdoor applications.
14. No employee should attempt to repair or use defective electrical fittings. Users should inspect all electrical equipment before use, for hazards which could cause serious harm or death.
15. Each telescope operation or department is responsible for properly training and appointing their Qualified Persons who are able to perform electrical work.

To view the OSHA website related to electrical standards please go to:

<http://www.osha.gov/SLTC/electrical/standards.html>

For additional information and the official University of Arizona documentation please go to:

<https://risk.arizona.edu/occupational-safety/lockout-and-tagout>