

 CITY OF TUCSON	City of Tucson Central Safety Services Number: S-017 Subject:	Page 1 of 3
		Effective Date: March 10, 2000
	Use of Ground Fault Circuit Interrupters	Reviewed/ Revised: January 1, 2013

1.0 PURPOSE

To ensure ground fault circuit interrupters (GFCI) are installed in City of Tucson facilities. The following criteria are the criteria to be used.

2.0 SCOPE

This will apply to all City of Tucson facilities whether owned, leased, donated or renovated, indoors or outdoors.

3.0 DEFINITION

Ground Fault Interrupting Circuit: A GFCI outlet is actually a replacement for a standard electrical outlet. A GFCI is not dependent of a ground to function. It does not measure shorts to the ground, it measures the current difference between the hot and neutral wires. A sudden difference of 5 ma. or more, indicating that there is another path for the electricity to flow through will trip this device. A GFCI outlet protects any appliance plugged into it, and can also be wired to protect other outlets that are connected to it.

GFCI Circuit Breaker: Means a circuit breaker that controls an entire circuit, by means of sensing amperage drop and is installed as a replacement for a standard over-current circuit breaker on the main circuit board.

Portable Type GFCIs: Come in several styles, all designed for easy transport. Some are designed to plug into existing non-GFCI outlets, or connect with a cord and plug arrangement. The portable type also incorporates a no-voltage release device that will disconnect power to the outlets if any supply conductor is open. Units approved for outdoor use will be in enclosures suitable for the environment. If exposed to rain, they must be listed as waterproof.

Cord-Connected Type of GFCI: Is an attachment plug incorporating the GFCI module. It protects the cord and any equipment attached to the cord. The attachment plug has a non-standard appearance with test and reset buttons. Like the portable type, it incorporates a no-voltage release device that will disconnect power to the load if any supply conductor is open.

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GFCI Test: There is a test button and a reset button on these units. Press the test button the reset should pop out. To reset the GFCI Outlet - push in the reset button.

4.0 RESPONSIBILITY

- A.** Permanent GFCI outlets shall be installed per the National Electric Code (NEC) by a qualified electrician.

- B.** Permanent GFCI outlets shall be “exercised” or tested by the department once in every thirty (30) day period. Testing is accomplished by pushing the test button. This trips the electrical circuit. The outlet can then be reset, by pushing the reset button. Portable or cord connected GFCI outlets shall be tested before each use.

5.0 EDUCATION AND TRAINING

- 1. Education and Training on the installation, operation, function of GFCI outlets shall be conducted by Central Safety Services as part of the OSHA 10-hour instructional training and through specialized training conducted by a qualified electrician.

6.0 GENERAL

A. Requirements

- 1. GFCI electrical outlets are required in all bathrooms, commercial kitchens, and roofs. GFCI outlets are required in food preparation areas (break rooms) where a sink is located in the counter top. GFCI outlets are required above the counter top, on the continuous wall line where the sink is located.

Exceptions: inaccessible outlets and those dedicated to appliances “occupying fixed space”; typically refrigerators, freezers and laundry appliances, and for sump pumps, drinking fountains or other motor s controlled by level switch, condenser or timer.

- 2. GFCI electrical outlets are required on any outdoor installation exposed to weather, i.e., outlets not under cover.

NOTE: Golf cart convenience outlets below the canopy must have GFCI outlets.

- 3. GFCI outlets are required where any temporary outdoor power source is utilized to power energized equipment.

Exception: Where a facility has a written program requiring the use of portable GFCI outlets for all electrical work functions.

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4. GFCI protection is required in areas where employees are likely to be well grounded such as in or on tanks, pipes, metal and damp concrete.
5. GFCI protection is required at any vehicle repair or washing facility.
6. GFCI protected outlets and those wired in-line to a GFCI outlet shall be appropriately labeled.
7. GFCI protection is required on any temporary wiring for festival events.

7.0 ADVICE AND COUNSEL

Central Safety Services will administer and review this policy as necessary.

OSHA 1926.404 (b) (1) (ii)

National Electric Code (NEC) 2005 590.6

National Electric Code (NEC) 2005 210.8