


<i>HEALTH AND SAFETY MANUAL</i>	
Title: Grounding Conductor Program	
Approved by: Greg Savoy	Rev. 4/1/08

1 Purpose/Scope:

The purpose of this program is to provide requirements to reduce employee potential for electric shock.

This program applies to all Company sites where construction activities are performed. This document covers Company employees and contractors and shall be used on owned premises. The Company uses Ground Fault Circuit Interrupters (GFCI).

2 Definitions/Responsibilities:

2.1 Definitions:

2.1.1 Competent Person - one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

2.1.2 Ground Fault Circuit Interrupter - a device for the protection of personnel that functions to de-energize a circuit or portion thereof within an established period of time when a current to ground exceeds some predetermined value that is less than that required to operate the over-current protective device of the supply circuit.

2.2 Responsibilities:

2.2.1 Supervisors are designated as competent persons for the Assured Equipment Grounding Conductor Program and are responsible for implementation.

2.2.2 Employees are responsible for following the requirements of this program, to perform visual inspections and take defective equipment out of service.

3 Requirements:

3.1 Assured Grounding:

3.1.1 OSHA requires that employers shall use either ground fault circuit interrupters (GFCI) or an assured equipment grounding conductor

program to protect personnel from electrical shock while working. The Company shall use GFCI's in lieu of an assured grounding program.

- Areas and facilities will comply with the Ground Fault Circuit Interrupter requirements provided in section 3.2, unless instructed by client or Company Management, to comply with the Assured Equipment Conductor Grounding Program, as provided in section 3.3.

3.2 Ground Fault Circuit Interrupters:

3.2.1 All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction or maintenance sites, which are not part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground fault circuit interrupters for personnel protection.

- All hand portable electric tools and extension cords shall use a GFCI.
- Additionally, approved GFCI's shall be used for 240-Volt circuits in the same service as described in 3.2.1 above.

3.2.2 GFCI's must be used on all 120 volt, single-phase 15 amp and 20 amp receptacles within 6 feet of a sink, damp areas or on installed outdoor equipment.

3.2.3 The GFCI must be the first device plugged into a permanent receptacle.

- The GFCI must be tested before each use.

3.3 Assured Equipment Grounding Conductor Program:

3.3.1 The Assured Equipment Grounding Conductor Program (AEGCP) shall cover all cord sets, receptacles not a part of the permanent wiring of a structure and equipment connected by cord and plug on all construction and maintenance sites.

3.3.2 This written explanation of the program must be kept at the jobsite whenever the AEGCP is implemented.

3.3.3 Removing equipment – all equipment found damaged or defective or which fails any of the prescribed inspections or tests may not be used until repaired or replaced.

- All defective or failed equipment must be tagged with a red “do not operate tag” until repaired and tested or rendered unusable and discarded.

3.3.4 Visual inspections – The following shall be visually inspected before each day's use for external defects (such as deformed or missing pins or insulation damage) and for indication of possible internal damage:

- Cord sets;

- Attachment caps;
 - Plug and receptacle of cord sets; and
 - Any equipment connected by cord and plug.
- 3.3.5 Continuity testing – The tester shall use either a continuity tester or an ohmmeter for testing; equipment grounding conductors on the following shall be tested for continuity and shall be electrically continuous:
- All cord sets;
 - Receptacles that are not a part of the permanent wiring of the building or structure; and
 - All plug-connected equipment required to be grounded.
- 3.3.6 Grounding conductor testing – The tester shall use either a continuity tester or an ohmmeter for testing; each receptacle and plug of the following shall be tested for correct attachment of the equipment-grounding conductor and the equipment-grounding conductor shall be connected to its proper terminal:
- All cord sets;
 - Receptacles that are not a part of the permanent wiring of the building or structure; and
 - All plug-connected equipment required to be grounded.
- 3.3.7 Test frequency – All required tests shall be performed with the following frequency:
- Before first use;
 - Before equipment is returned to service following any repairs;
 - Before equipment is used after any incident that can be reasonably suspected to have caused damage; and
 - At intervals not to exceed 3 months, except that cord sets and receptacles that are fixed and not exposed to damage shall be tested at intervals not to exceed six months.
- 3.3.8 All tests shall be documented to identify each receptacle, cord set and cord and plug-connected equipment that passed the test, the date of the test and the individual responsible for the test.
- All tested cord sets and cord and plug-connected equipment shall be marked, one or both ends, with colored tape to denote the month that the tests were performed. Exhibit 5.1 contains the color code chart that must be followed for marking.

4 References:

29 CFR 1926.404, Wiring Design and Protection.

5 Exhibits:

G-2.1 Color Code Chart

G-2.1 Color Code Chart

<i>Assured Equipment Grounding Conductor Program (Color Code)</i>		
Month #	<i>Month Tested</i>	Color of tape(s) to apply to cord
1	January	White
2	February	White + Yellow
3	March	Blue
4	April	Green
5	May	Green + Yellow
6	June	Green + Blue
7	July	Red
8	August	Red + Yellow
9	September	Red + Blue
10	October	Orange
11	November	Orange + Yellow
12	December	Orange + Blue

As an easy reminder of the color of the tape to place on the newly tested cord, remember the color for the start of each calendar quarter by the season:

White in January for Winter

Green in April for Spring

Red in July for Summer, or the 4th of July

Orange in October for Fall, or pumpkins.

Then add:

Yellow for the second month in each quarter,

Blue for the third month of each quarter.