1.0 Purpose

- This section covers Ardent’s program for protecting employees from hazardous electrical energy due to equipment malfunctions, defects, or improper grounding. OSHA requires that employers shall use either ground-fault circuit interrupters or an assured equipment grounding conductor program to protect employees on construction sites.

2.0 Scope

- All company operations shall use this program both in business units and project operations.

3.0 Regulatory References

- This Ground Conductor and GFCI Employee Protection Program is primarily intended to satisfy the following regulatory requirements:
  - 29 CFR 1926.404,

4.0 Policy

4.1 Training - All Ardent employees shall be trained in the Ground Conductor and GFCI Employee Protection Program.

4.2 Assured Grounding Program - shall be implemented and maintained on all Ardent jobsites.

4.3 GFCI’s - All 120-volt, single-phase 15- and 20-ampere receptacle outlets used by Ardent employees as temporary power, and which are not part of the permanent wiring of the facility, shall have approved ground-fault circuit interrupters.

4.4 Testing GFCI’s - All GFCI’s shall be tested once every three (3) months to make sure they are working properly.

4.5 Visual Inspections - All cord sets, plugs and receptacles of cord sets, and any equipment connected by cord and plug shall be visually inspected before each use (daily) for damage, defects, or signs of wear.

4.6 Remove from Service - All equipment found or suspected of having damage, defects or excessive wear shall be removed from service and tagged “Do Not Use”. Report this equipment to your supervisor or equipment manager.
5.0 Definitions

5.1 "Competent Person" - (OSHA Definition) means one who can identify 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.

5.2 “GFCI” - Ground-Fault Circuit Interrupter is a device to protect against electric shock.

6.0 Responsibilities

6.1 Management – Ardent Management is responsible for the following:
   • Ensure that the HSE Management System includes a Ground Conductor and GFCI Employee Protection Program and that the program is reviewed annually and revised as necessary.
   • Provide Ground Conductor and GFCI training for all Ardent employees.
   • Provide leadership and support for employees in communicating their responsibility to stop the work when observing unsafe behaviors or unsafe conditions.
   • Provide resources to implement and maintain the Ground Conductor and GFCI Employee Protection Program.

6.2 Supervision – Ardent Supervisors are responsible for the following:
   • Understand and enforce Ardent’s Ground Conductor and GFCI Employee Protection Program.
   • Ensure that GFCI’s are tested a minimum of once every three (3) months by a competent person.
   • Ensure that all tests and inspections required by the Assured Grounding Program are conducted by a competent person.
   • Provide on-the-job training for all employees regarding Ardent’s Ground Conductor and GFCI Employee Protection Program.
   • Provide guidance for all employees in recognizing defective, damaged, or out of compliance electrical cords, receptacles and equipment.
   • Document and maintain all records (training, tests, inspections) required by this program.

6.3 Employees – Ardent Employees are responsible for the following:
   • Ardent employees are to stop the work and immediately inform their supervisor if they suspect the work is unsafe or a hazard exists that was not identified on the JSA and control methods discussed.
   • Understand the meaning of Ground Assurance Program Color Coding System and the current color of month.
• Visually inspect all cord sets, attachment cap, plugs and receptacles of cord sets, and any equipment connected by cord and plug for damage, defects, or signs of wear.
• Remove from service all equipment found or suspected of having damage, defects or excessive wear. Report this equipment to your supervisor or the tools and equipment manager.

6.0 Ground Fault Protection

6.1 Ground-Fault Circuit Interrupters (GFCI)

6.1.1 GFCI's - All 120-volt, single-phase 15- and 20-ampere receptacle outlets used by Ardent employees as temporary power for construction and maintenance, and which are not part of the permanent wiring of the facility, shall have approved ground-fault circuit interrupters (GFCI's) for personnel protection.

6.1.2 Testing GFCI's - All GFCI's shall be tested once every three (3) months to make sure they are working properly and are protecting employees from electric shock.

1. To test the receptacle GFCI, first plug a test-light or shop-light into the outlet. The light should be ON. Then, press the "TEST" button on the GFCI. The GFCI's "RESET" button should pop out, and the light should go out.

2. If the "RESET" button pops out but the light does not go out, the GFCI has been improperly wired. Contact a qualified electrician to correct the wiring errors.

3. If the "RESET" button does not pop out, the GFCI is defective and should be replaced.

4. If the GFCI is functioning properly, and the lamp goes out, press the "RESET" button to restore power to the outlet.

6.2 Assured Equipment Grounding Conductor Program

6.2.1 The following Assured Grounding Program shall be implemented and maintained on all Ardent jobsites. This program covers all cord sets and receptacles that are not a part of the permanent wiring of the facility, and equipment connected by cord and/or plug used by Ardent employees.
|-----------------------------|--------------------------|

**Grounding Conductor & GFCI Employee Protection Program**

<table>
<thead>
<tr>
<th>Revision:</th>
<th>1</th>
</tr>
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<tbody>
<tr>
<td>Rel. Date:</td>
<td>Aug 2006</td>
</tr>
<tr>
<td>Last Review:</td>
<td>March 2018</td>
</tr>
</tbody>
</table>

6.2.2 The Assured Grounding Program shall comply with the following minimum requirements:

1) The written copy of this program and the specific procedures that follow shall be available at each jobsite for inspection and copying by OSHA and any affected employee.

2) One or more "competent person" shall be designated at each jobsite to implement and maintained the program.

3) Each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, shall be visually inspected before each day's use for external defects, such as deformed or missing pins or insulation damage, and for indications of possible internal damage. Equipment found damaged or defective shall not be used.

4) The following tests shall be performed as a minimum once every three (3) months on all cord sets and receptacles covered by the program and cord and plug-connected equipment required to be grounded:

   a. All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.
   
   b. Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment grounding conductor. The equipment grounding conductor shall be connected to its proper terminal.

5) All required tests shall be performed:

   a. Before first use.
   
   b. Before equipment is returned to service following any repairs.
   
   c. Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over).
   
   d. At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage shall be tested at intervals not exceeding 6 months.

6) Equipment not satisfying the above requirements shall not be used.
7) Each receptacle, cord set, and cord and plug-connected equipment shall be uniquely identified by a marking or tagging method suitable for the environment. Tests and inspections shall be recorded on an Ardent “Assured Grounding Program Test and Inspection Form” and shall identify each receptacle, cord set, and cord and plug-connected equipment that passed the test and shall indicate the date it was tested.

8) A copy of the latest inspection shall be kept on the jobsite as required by 29 CFR 1926.404(b) (1)(iii)(G) for inspection by OSHA and any affected employee.

9) Failed and damaged equipment shall be tagged “Do Not Use” and removed (isolated) from service until repaired or replaced.

10) Tested and inspected equipment shall be Color Coded using plastic or vinyl electrical tape placed on one or both ends of cords and cord- and plug-connected equipment to denote the month that the tests were performed.

<table>
<thead>
<tr>
<th>Month #</th>
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<tbody>
<tr>
<td>1</td>
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<td>White</td>
</tr>
<tr>
<td>2</td>
<td>February</td>
<td>White + Yellow</td>
</tr>
<tr>
<td>3</td>
<td>March</td>
<td>White + Blue</td>
</tr>
<tr>
<td>4</td>
<td>April</td>
<td>Green</td>
</tr>
<tr>
<td>5</td>
<td>May</td>
<td>Green + Yellow</td>
</tr>
<tr>
<td>6</td>
<td>June</td>
<td>Green + Blue</td>
</tr>
<tr>
<td>7</td>
<td>July</td>
<td>Red</td>
</tr>
<tr>
<td>8</td>
<td>August</td>
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<td>9</td>
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<td>10</td>
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<td>11</td>
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</tr>
<tr>
<td>12</td>
<td>December</td>
<td>Orange + Blue</td>
</tr>
</tbody>
</table>
Note: Quarterly testing is required. Certain Ardent clients and facilities may require monthly testing. The table above provides an optional method and schedule for monthly testing and identification.

7.0 Training
7.1 Ardent will provide “Ground Conductor and GFCI Employee Protection” program training.
   7.1.1 Training Content – Content includes:
   - Purpose & Policy
   - Employee Responsibilities
   - Ground-Fault Circuit Interrupters (GFCI)
   - GFCI’s Testing Procedure
   - Assured Grounding Program
   - Program Color Code
   - Reporting & Documentation

   7.1.2 Personnel Training – All Ardent employees shall receive “Ground Conductor and GFCI Employee Protection Program” training.

   7.1.3 Training Frequency - “Ground Conductor and GFCI Employee Protection Program” training shall be included in the Equipment & Electrical Grounding training and shall be refreshed annually as part of the Toolbox Safety Meeting Program.

8.0 Reporting and Recordkeeping
8.1 Custodian – Ardent’s Director of HS&E or designee shall be the custodian of all “Ground Conductor and GFCI Employee Protection Program” records.

8.2 Control – Records associated with this program shall be handled in the following manner.
   8.2.1 Inspection & Testing – Records shall be collected weekly by site supervisors. A copy of the latest inspection shall be kept on the jobsite as required by 29 CFR 1926.404(b) (1) (iii)(G).

   8.2.2 Training Records – Training Records shall be forwarded promptly to project or business unit offices.

8.3 Retention - Records shall be retained as follows:
   8.3.1 Inspection & Testing - shall be retained for 5 years.
   8.3.2 Training Records - shall be retained for a minimum of the employee’s duration of employment.
9.0 Attachments