
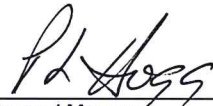

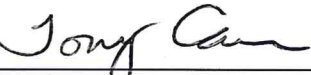
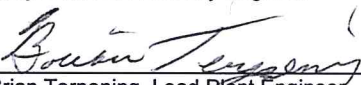



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<b>ISSUED BY:</b>  <div style="text-align: center;">   <hr style="width: 80%; margin: 0 auto;"/>                 Safety Manager                  Coosa Pines Operations             </div> <div style="text-align: center; margin-top: 10px;">                 7-16-18  <hr style="width: 80%; margin: 0 auto;"/>                 DATE             </div>	<b>APPROVED BY:</b>  <div style="text-align: center;">   <hr style="width: 80%; margin: 0 auto;"/>                 General Manager                  Coosa Pines Operations             </div> <div style="text-align: center; margin-top: 10px;">                 7-30-18  <hr style="width: 80%; margin: 0 auto;"/>                 DATE             </div>
<p>INTERPRETATION AND PERIODIC REVIEW OF THIS PROCEDURE IS THE RESPONSIBILITY OF:</p>	
<p><b>ELECTRICAL SAFETY TEAM:</b></p>	
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 80%;">   <hr style="width: 80%; margin: 0 auto;"/>                     Greg Barnett, Safety Manager                 </div> <div style="width: 15%; text-align: center;">                     7-16-18  <hr style="width: 80%; margin: 0 auto;"/>                     DATE                 </div> </div>	
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 80%;">   <hr style="width: 80%; margin: 0 auto;"/>                     Tony Carr, E/I Reliability Engineer                 </div> <div style="width: 15%; text-align: center;">                     7/24/18  <hr style="width: 80%; margin: 0 auto;"/>                     DATE                 </div> </div>	
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 80%;">   <hr style="width: 80%; margin: 0 auto;"/>                     Brian Terpening, Lead Plant Engineer                 </div> <div style="width: 15%; text-align: center;">                     7/30/18  <hr style="width: 80%; margin: 0 auto;"/>                     DATE                 </div> </div>	
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 80%;">   <hr style="width: 80%; margin: 0 auto;"/>                     Jeff Isaacs, E/I Coordinator                 </div> <div style="width: 15%; text-align: center;">                     7/16/18  <hr style="width: 80%; margin: 0 auto;"/>                     DATE                 </div> </div>	
<p><b>DISTRIBUTION</b></p> <p>ALL MANAGERS ALL TEAM LEADERS</p>	

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## ENERGIZED EQUIPMENT WORK PERMIT

The purpose of this section is to define the procedures required to work on energized electrical equipment.

Energized Equipment Work is defined as any work to be done on or near un-insulated, un-guarded, energized conductors or circuit parts.

**ENERGIZED** is defined as “exposed electrical parts or conductors operating at or having the potential to be operated at 50 volts or more”.

Deciding to work on or near live (energized) parts should be a last resort in the workplace, after all other opportunities for establishing an electrically safe work condition have been exhausted.

Coosa Pines follows NFPA 70E guidelines for work being performed on Energized Equipment.

### 1. Qualifications

1.1. Only Qualified/Certified persons are permitted to work on electrical equipment that has not been put into an electrically safe work condition and locked out following mill Lockout/Tagout policies.

### 2. Permit Requirement

2.1. If energized equipment is not placed in an electrically safe work condition, work shall be performed by written permit only. The Energized Equipment Work Permit forms are located on the Coosa Portal on the Safety and Health page under the Forms folder.

Examples of work requiring an Energized Equipment Work Permit include but are not limited to:

- Installing/removing a 480 volt MCC bucket
- Installing/removing a 480 volt group breaker on an energized bus
- Cleaning porcelain insulators in the substation yard
- Working on energized aerial lines
- Changing 277/480 volt lighting ballast

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2.2. Work performed on or near live (energized) parts by Qualified/Certified persons related to tasks such as testing, troubleshooting, voltage measuring, etc. can be performed without an electrical energized work permit, provided appropriate safe work practices and personal protective equipment are provided and used. Some examples of energized work not requiring an energized equipment work permit at Coosa Pines includes but is not limited to:

- Using a voltage tester on a 480 volt motor starter
- Using a clamp-on ammeter to measure motor currents
- Using an oscilloscope to troubleshoot a variable speed motor drive
- Connecting a chart recorder to electronic equipment
- Changing lamps and light bulbs
- Adding or removing a circuit breaker to a lighting panel
- Using an infrared camera outside the Prohibited Approach Boundary

3. Request

- 3.1. All requests for work on energized electrical equipment shall be submitted to that area's supervision, i.e. Shift Team Leaders or Operations Coordinator.
- 3.2. When possible, work on Energized Equipment should be planned and scheduled. A work request will be completed and the job will follow the normal work approval process.

4. Obtaining a Permit – Planned Work

- 4.1. For planned work, qualified E & I personnel must complete Part I and Part II of the Energized Equipment Work Permit form. The area E&I Planner shall review the information with the area E&I Coordinator and Operations Manager to determine if the job can be safely performed.
- 4.2. If there is agreement the job can be performed safely, then Part III shall be marked "yes", the area E&I Coordinator or E&I Reliability Engineer and Operations Manager or General Manager shall sign the permit. The permit form shall be sent to the area E&I Planner and the job planned and scheduled. The signed permit form shall be included in the job packet.
- 4.3. If it is determined that the job can not be safely performed, Part III shall be marked "no" and the area Operations Manager or General Manager and the area E&I Coordinator or E&I Reliability Engineer shall sign the permit. The requestor shall be notified of the decision by the Operations Manager. The area E&I Coordinator or E&I Reliability Engineer shall send the signed form to the Safety Coordinator for filing.

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5. Obtaining a Permit – Emergency Work

- 5.1. For emergency (unplanned work), the area Shift Team Leader shall instruct an E&I Coordinator, E&I Planner, or other qualified E&I Tech to complete Part I and Part II of the Energized Equipment Work Permit form. Every attempt shall be made to contact a Qualified Electrical Supervisor, but if not available, the information shall be reviewed with a second on-site qualified E&I employee.
- 5.2. If there is agreement the job can be performed safely, then Part III shall be marked “yes”, and signed by the E&I employee performing the work and the E&I employee who provided the review. The permit form shall be reviewed with the Shift Team Leader prior to work beginning.
- 5.3. If it is determined that job can not be safely performed as planned, Part III shall be marked “no” and signed by the E&I employees performing the review. The form shall be reviewed with the Shift Team Leader and then be forwarded to the area E&I Coordinator for review. The E&I Coordinator shall mail the signed form to the Safety Coordinator for filing.

6. Before Work Begins

- 6.1. For all Energized Equipment permit work performed by Coosa Pines E&I personnel or contractors, a qualified Coosa Pines E&I tech equipped with a mill Safety Permit radio (on the Emergency Channel) shall serve as an Attendant to respond to an emergency and provide electrical instructions to responders. Safety Permit radios shall be obtained from the operating area.
- 6.2. The Attendant shall contact the Shift Team Leader to identify an ERT representative who shall coordinate ERT support for the job.
- 6.3. The Attendant and the E&I Tech performing the job shall meet at the job location with the ERT representative assigned by the Shift Team Leader to give the ERT representative an understanding of the location, the job being performed, and the potential hazards/risks. The three will review the Energized Electrical Work Permit and complete the Emergency Preparedness section of the permit checklist which includes the location of the MCC Interrupter power source, location of nearest Defibulator (AED), location of nearest fire extinguisher, access control plan, and verification that communications equipment is working. The three shall sign off on the checklist and include the checklist with the permit.
- 6.4. The ERT representative will inform all ERT members that an Energized Equipment Work Permit job is to begin and of the location of the job.
- 6.5. The Attendant shall contact Mill Security to obtain an Energized Equipment Work permit number. Security shall record the event in the Energized Equipment Work

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Permit Log and provide the Attendant with a permit number. The Attendant shall record the permit number on the Energized Equipment Work Permit form and post the permit at the job site.

- 6.6. The Attendant shall notify Security that work under the permit is to begin. Security shall record the start time and monitor the Safety Permit radio during the job. In the event of an incident, Security shall notify the mill ERT and Childersburg EMS.
7. Personnel Changes during the job
  - 7.1. In the event the E&I Tech, Attendant, or ERT rep who signed off on the checklist is replaced, the job shall be stopped and the Attendant will notify Security and the Shift Team leader that the job has been stopped.
  - 7.2. Before work under the permit begins again, steps 6.1 – 6.6 shall be followed which includes a review of the permit and completion of a new Emergency Preparedness checklist.
8. Permit Completion
  - 8.1. The Attendant shall notify Security when the job has been completed. Security shall record the finish time on the Energized Equipment Work Permit log and inform ERT members the job is complete.
  - 8.2. The E&I Tech shall complete Part IV and sign and return the permit to either the Area E&I Coordinator or Shift Team Leader.
  - 8.3. If the Shift Team Leader receives the signed permit, he/she will forward the permit to the Area E&I Coordinator for review and signature.
  - 8.4. All completed permits shall be returned to the Safety Coordinator by the E&I Coordinator.
  - 8.5. Completed permits shall be filed in the EHS area for a minimum of one year.
9. Permit Form
  - 9.1. The permit form can be found on the Coosa Portal under the Safety and Health Forms folder.

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### RECORD OF REVISIONS

Section	Revision Number	Effective Date	Description Of Changes
6.1 & 6.6	1	2-27-12	Changed "Confined Space Radio on Emergency Channel #1" to "Safety Permit Radio on the Emergency Channel".
Record of Rev.	1	2-27-12	Added
ALL	2	03-19-13	Name change to Resolute
ALL	3	07-12-18	Annual review and update.