

Building 18



3 Lockout Devices Needed

**Description:** Procedure for locking out G-45067 Emergency Power Generator supplying Building 18.

### Potential Hazards:



Electrical discharge can occur when opening disconnects, stand to the side in case of energy release.







Be aware that when the engine is in the automatic mode, the engine can start at any moment. Use extreme caution until it is verified that the engine cannot be started.



Removing the battery cables or the batteries with the cover in place may cause a battery explosion resulting in personal injury. Remove the battery cover before service is attempted.




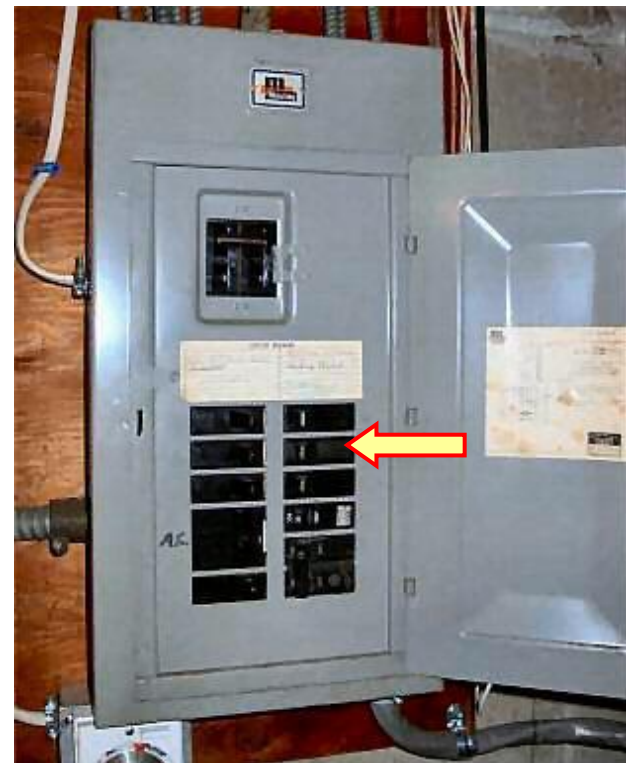
<p><b>1</b></p>	<p><b>Prerequisites</b></p>	
 <p>The image shows an ATS Annunciator Panel with a digital display and various indicator lights. The text on the panel includes 'ATS Annunciator', 'ATS-1 ATS-2 ATS-3 ATS-4', and 'ASCO Power Technologies, LP'.</p>	<ol style="list-style-type: none"> <li>1. Notify the affected employees and identify the energy sources.</li> <li>2. At the Automatic Transfer Switch Annunciator Panel in the Building 18 Generator Room northwest corner, verify that: <ul style="list-style-type: none"> <li>• All transfers switches are in the Normal position.</li> <li>• The generator is not supplying power.</li> </ul> </li> </ol>	
<p><b>2</b></p>	<p><b>Shut Down Equipment</b></p>	
 <p>The image shows the Generator Electronic Modular Control Panel. A red STOP pushbutton with a white indicator light is highlighted with a red and yellow callout box.</p>	<ol style="list-style-type: none"> <li>1. At the Generator Electronic Modular Control Panel located on the front of the emergency generator: <ul style="list-style-type: none"> <li>• Press the Red STOP pushbutton and verify that the indicator light illuminates.</li> <li>• Note: This removes the emergency generator's automatic start feature.</li> </ul> </li> </ol>	
<p><b>3</b></p>	<p><b>Lock Out Equipment</b></p>	
	<p><b>Open Output Breaker</b></p>	<p><b>Electrical 480V</b></p>
 <p>The image shows the front of a Caterpillar generator. A blue output breaker is highlighted with a red and yellow callout box. The Caterpillar logo is visible at the top.</p>	<ol style="list-style-type: none"> <li>1. Open the Generator Output Breaker. <ul style="list-style-type: none"> <li>• Breaker is located under the Dust Flap directly beneath the Electronic Modular Control Panel.</li> </ul> </li> <li>2. Apply lock and tag.</li> </ol>	

	<b>Turn Off Control Power</b>	<b>Electrical 120V</b>
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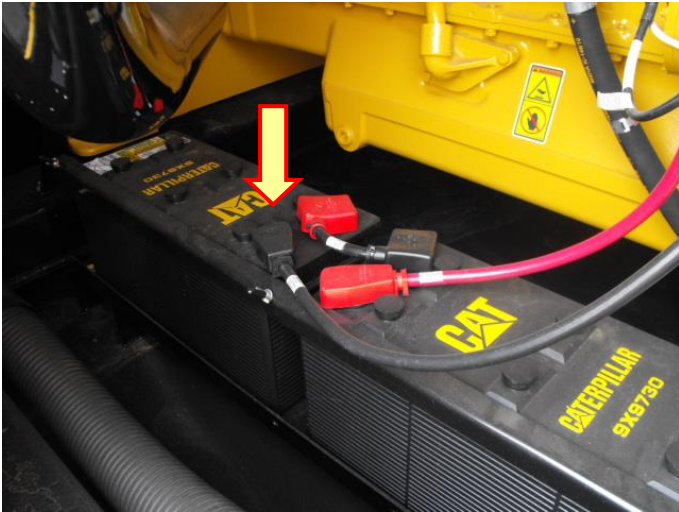




3. Position the Control Power Key Switch to OFF.
  - Control Power Panel is located inside the center door at the back of the generator.
4. Remove the Key from the Key Switch and place it in a Lock Box.

	<b>Open Battery Charger Breaker</b>	<b>Electrical 120V</b>
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5. OPEN breaker labeled, Emergency Generator Charger.
  - Breaker is located inside the electrical distribution panel labeled 120V Normal – Emergency Distribution Panel (EDP-1).
  - EDP-1 is located on the Generator Room North wall in the Northeast corner.
6. Apply lock and tag.

	<h3>Lift Battery Negative Leads</h3>	<b>Electrical</b> <b>48V</b>
		<p>7. Remove the Battery Cover.</p> <div style="text-align: center;">  </div> <p><b>Danger:</b> Removing the battery cables or the batteries with the cover in place may cause a battery explosion resulting in personal injury. Remove the battery cover before service is attempted.</p> <p>8. Disconnect the NEGATIVE battery terminal from the battery that goes to the start switch. Ensure that the cable cannot contact the terminal.</p> <p>9. Apply lockout device to lead. Ensure that the lead is insulated to prevent accidental starting.</p>
<div style="display: flex; align-items: center;"> <div style="border: 2px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin-right: 10px;"> <span style="color: white; font-weight: bold; font-size: 24px;">4</span> </div> <h3>Remove Stored Energy</h3> </div>		
<p>10. Electrical isolation only – use standard work practices to remove residual or stored voltages from capacitors and components.</p>		
<div style="display: flex; align-items: center;"> <div style="border: 2px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin-right: 10px;"> <span style="color: white; font-weight: bold; font-size: 24px;">5</span> </div> <h3>Verify Isolation</h3> </div>		
		<p>11. At the Generator Electronic Modular Control Panel:</p> <ul style="list-style-type: none"> <li>• Press the Green RUN pushbutton.</li> <li>• Verify that the Emergency Generator does not START.</li> </ul> <p>12. A qualified person using an appropriate testing device must verify that the equipment is isolated.</p>

**6****Restore Equipment to Operation**

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken:

13. Check the machine or equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
14. Verify that the controls are in proper position prior to re-energizing equipment.
15. Remove the lockout devices and reenergize the machine or equipment in the reverse order in which they were applied.

**2**

The engine was taken out of Automatic mode in step 2. The Auto Key on the Electronic Modular Control Panel must be selected in order for the Automatic Start Feature of the engine to work.

16. Notify affected employees that servicing is complete and the equipment is ready for operational test.