BURNDY & YOU
Maintaining Job Site Safety

While it’s important to recognize the need to reduce operating costs, it’s equally important to make certain all equipment is properly grounded and bonded. Adhering to electrical safety standards will ensure that not only the equipment is protected, but also your personnel. Lightning strikes and a large buildup of static electricity are common on and around drilling sites.

Taking the necessary steps to follow grounding and bonding safety protocol is easy. BURNDY offers a wide array of products, tools and accessories that meet industry standards for grounding and bonding. For existing sites, there are connectors available to improve the grounding and bonding of above ground equipment. BURNDY also offers a compression and exothermic ground grid solution.

RECOMMENDED GROUNDING PRACTICES

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toolpusher’s trailer grounded</td>
<td>RP54 6.1.16</td>
</tr>
<tr>
<td>Rig substructure, derrick mast, and other equipment, as appropriate, are grounded to prevent the build up of static charge</td>
<td>RP54 6.1.16</td>
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<tr>
<td>Generators properly grounded</td>
<td>RP54 9.14.11</td>
</tr>
<tr>
<td>Electric hand tools double insulated or grounded</td>
<td>RP54 6.8.7</td>
</tr>
<tr>
<td>Electrical grounding of wellhead, service unit and rig made prior to operating tools using explosives</td>
<td>RP54 13.8.6</td>
</tr>
<tr>
<td>Blending equipment grounded</td>
<td>RP54 16.1.6</td>
</tr>
<tr>
<td>Sand unloading equipment bonded to blending machine</td>
<td>RP54 16.1.6</td>
</tr>
</tbody>
</table>

Compiled from the American Petroleum Institute’s (API) Recommended Practices

A Tank Trucks (Product # used 1)
Static ignited fires and explosions can be easily avoided with proper grounding techniques. Electrostatic charge build-up occurs when tank trucks are being loaded and unloaded of fluids and chemicals.

B Flammable Storage Tanks (Product #'s used 1, 2, 3)
Storage tanks can be extremely dangerous and can cause damage to themselves as well as nearby equipment. The non-corrosive properties in Fiberglass Reinforced Plastic (FRP) storage tanks are helpful. However, the non-conductive property of FRP materials can still increase resistance which can cause intense heat, should the tank become energized.

C Drilling Rig (Product #'s used 2, 3, 4, 5, 8)
The rig substructure, derrick mast and other equipment must be properly grounded. This applies to all rigs whether they are mobile or stationary and whether they are mechanically, electrically or hydraulically powered.
Did You Know?
Properly grounding equipment that stores or transfers flammable liquid allows static charges to be drained away.

Did You Know?
One arc flash incident can cost up to $15 million, including healthcare costs, workers compensation, equipment replacement, increased insurance premiums and lost production time, according to an Electric Power Research Institute (EPRI) study.

Did You Know?
Grounding conductors cannot be connected to gas piping, lightning rods or plastic pipes.

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**Ground Grid System**
(Product #’s used 6, 7)

All components should be connected to the ground grid system which lies underneath the pad of the site. BURNDY offers a robust set of options to accommodate your needs including the BURNDY HYGROUND® Compression and BURNDYWeld® Exothermic lines.

**Perimeter Fencing**
(Product #’s used 4, 8)

Under fault conditions, fencing can have very high touch potentials, leaving personnel at risk. Properly grounding and bonding fence posts is extremely important to the safety of the job site considering the frequency of personnel potentially coming into contact with the gates.

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6 HYGROUND® Compression
7 BURNDYWeld® Exothermic
8 Braid