Industrial Compliance & Safety

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Toolbox Talk – Electrical Hazards

Date _____ **Company Name** _____

Supervisor _____ **Job Name** _____

Construction sites have a great capacity for electrical hazards. Electricity is used as a power supply for tools, for lighting, and for the operation of machinery. Additionally, electricity exists as infrastructure that runs through walls, underground, and in suspended power lines. Essentially, electricity is all around us, and if we aren't careful we can face the risk of electrocution. Electrocution is especially dangerous because it can cause loss of consciousness. If a worker is in a precarious position, this loss of consciousness can result in a fall or other physical accident.

In today's Toolbox Talk, we will take a close look at the different ways we can receive an electric shock, as well as ways to avoid electrical hazards.

Guidelines for Discussion:

While working on a construction site, you face the risk for many different kinds of injuries. Today we will be talking about electric shock. Electrocution occurs when your body is exposed to an unprotected electrical current. You can receive an electrical shock in many different ways, such as:

- From a defective power tool.
- From defective (i.e. frayed, worn-down insulation) extension cords.
- From overloading a switch or overriding a by-pass.
- By not grounding electrical equipment.
- By coming in close contact with live electric lines.
- By coming too close to high power lines with the power arching over and making contact.
- By colliding into high power lines with heavy equipment (i.e. cranes).

There are many ways that you can protect yourself from electrical hazards:

- Always inspect tools and equipment for frayed cords, damaged housing, and defective plugs before use.
- Never use a power tool that has had the ground plug removed - inspect the plug.
- Never stand in water and operate a power tool without insulated footwear and other company-mandated PPE.
- Keep extension cords out of water when in use.
- Consider all power lines "live" and avoid contact with them.
- Disconnect all electrical tools and cords when not in use.
- Make sure that all temporary/onsite lighting is equipped with bulb covers.
- Make sure all power supplies, circuit boxes and breaker boxes are properly marked to indicate their purpose.
- Make sure that all your tools/equipment are compatible with the voltage of your sockets.
- Use Ground Fault Interrupters (GFI's) on all job sites.

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You can also protect yourself by using your auditory and tactile senses while working with electrical equipment. While working, be alert for any unusual sounds or sensations - overheated or dysfunctional equipment can result in electrocution and electrical fires.

Also, if you are working with any electrical equipment while in a precarious physical position (such as scaffolding, atop a crane, etc.), use all other mandatory PPE (such as a safety harness) to ensure that if electrocution does occur, you are not at risk for other physical hazards. Electrocution is bad enough on its own.

Additional Discussion Notes:

At the end of this Toolbox Talk, go over the company policy regarding your grounding program and the installation of the ground fault interrupter system. Name any responsible employees/departments.

Safety Recommendations _____

Job Specific Topics _____

Attendees

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