

Worker Suffers Electric Shock

POTENTIALLY SERIOUS INCIDENT

Description:

A rig crew was in the process of rigging out. One worker verified that the plug (“male”) end of a 240-volt power cord was not connected and placed the cord alongside the pipe rack.

NOTE: Like a household power cord, the plug is the end that would normally be inserted into the electrical outlet, or panel, for power. Unbeknownst to these workers, this electrical panel had the opposite configuration, and the socket (female) end of the cord was still attached to the power panel.

Another worker was instructed to wrap up the power cord and was collecting it from under the pipe rack when it became stuck. While trying to grab the end of the cord to free it, the worker’s fingers touched the exposed plug end posts and received an electric shock resulting in severe and prolonged muscle spasms.

What Went Wrong:

- The rig’s power panel had a connection for a socket end, which is contrary to the typical configuration. When the worker confirmed the plug end was not connected to the panel, it was incorrectly assumed that the cord was not energized.
- No one confirmed isolation of power by removing the cord from the rig’s power panel.
- The exposed posts on the plug end allowed the worker to inadvertently touch the energized components.
- The job safety analysis (JSA) that was reviewed had not been approved and did not identify the hazards or proper controls for unplugging and handling power cords.

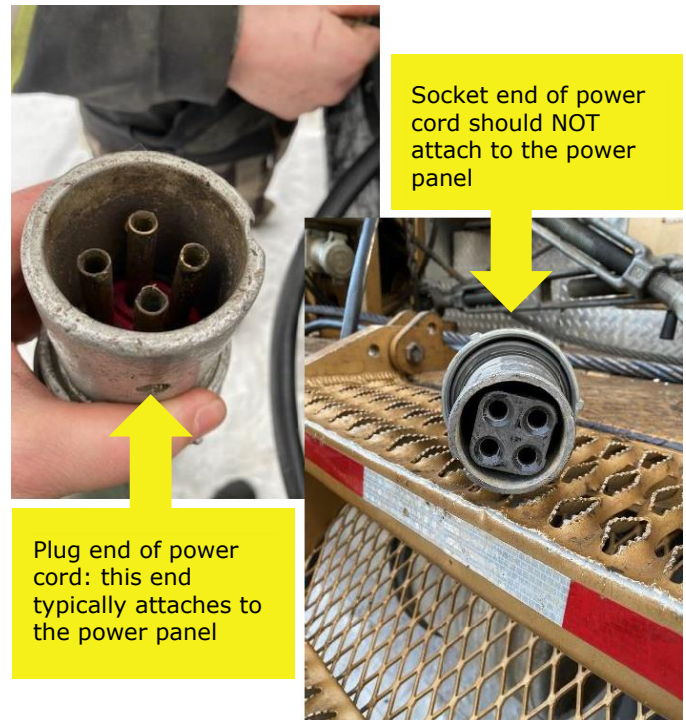
Life Saving Rule | Energy Isolation

This alert relates to the following excerpts from the rule:



[Watch the video](#)

- I have identified all energy sources.
- I confirm that hazardous energy sources have been isolated, locked and tagged.



Actions Taken/Recommendations:

- All power panels must be configured to receive/connect with plug ends.
- Power cords must be locked into place and controlled by the rig manager when live. The rig manager is responsible to ensure the system is de-energized before unplugging.
- Personnel must access JSAs from the central system to ensure the most recent and approved version is in use.



View of proper
power cord lockout

Industry Resources:

- [Life Saving Rules](#)
- [Safety Critical Procedures Safety Bulletin](#)
- [Canadian Electrical Code](#)

Help industry by sharing lessons learned from an incident. [Submit your Safety Alert.](#)

SHARE AND COLLABORATE

Energy Safety Canada (ESC) works collaboratively with industry to share information aimed at helping companies of all sizes improve safe work performance.

DISCLAIMER

Use of this document or any information contained herein is at the user's sole risk. ESC makes no representations and assumes no liability. For further information on these restrictions, go to <https://www.energysafetycanada.com/Legal>

COPYRIGHT/RIGHT TO REPRODUCE

Copyright for this document is held by Energy Safety Canada, 2022. All rights reserved. Energy Safety Canada encourages the copying, reproduction and distribution of this document to promote health and safety in the workplace, if Energy Safety Canada is acknowledged. However, no part of this publication may be copied, reproduced or distributed for profit or other commercial enterprise, nor may any part be incorporated into any other publication, without written permission of Energy Safety Canada.