



Safety Alert

From the International Association of Drilling Contractors

ALERT 99-21

THIRD PARTY ELECTROCUTION

WHAT HAPPENED:

Recently the configuration of an electrical connection on third party equipment contributed to a tragic fatality on board an offshore rig. The 480-volt, 63-amp cable providing power from the third party generator panel to a portable hydraulic power unit (HPU) had a male (four-prong) connector. The receptacle on the hydraulic power unit was a female connector. Before power was shut off, a third-party employee touched the end of the live cable while disconnecting it from the HPU and was electrocuted.

WHAT CAUSED IT:

Although a cylindrical guard surrounded the live line male connector, there was nothing to prevent contact with the ends of the prong. In addition, despite a lengthy pre-job meeting about leaving the electrical connections alone until the power supply from the self-contained generator was turned off, the employee disconnected the cable while the line was live. The generator, the live line, and the hydraulic power unit were all brought to the rig as part of the third party's equipment package.

CORRECTIVE ACTIONS:

The third party involved has directed that all similar electrical connections be changed to insulated female at the live end with recessed male receptacles at the equipment end.

The contractor whose rig was involved has instructed its employees to review all equipment brought aboard their rigs, regardless of the equipment provider/owner. All equipment -- particularly power-generating equipment -- should be safe and fit-for-purpose. They should also review with third-party workers the importance of performing Job Safety Analyses (JSAs) and lockout/tagout procedures. Information on performing JSAs can be found in *the IADC Accident Prevention Reference Guide*.

All concerned should understand the electrical circuit characteristics of their equipment and be able to show that all appropriate certifications to operate the equipment are in effect. If necessary, the Offshore Installation Manager (OIM) should rely on other resources, including their onboard technicians and the company's shorebased technical support staff to assist in evaluating all equipment prior to placing it in service. Any questions concerning equipment installation should be resolved to the satisfaction of the OIM prior to allowing the equipment provider to place it in use.

Although this incident occurred offshore, the same concerns hold true for land operations. In that case, the Drilling Superintendent or Toolpusher should make certain that any third-party equipment is safe and fit for use.

The Corrective Actions stated in this alert are one company's attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices.
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