



# Marine Safety Forum – Safety Flash 12-20

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**Subject: Serious Near Miss with Live Electrical Cable**

A recent incident on board a vessel has highlighted the importance of close interface between contractors working onboard and the vessel crews.

During the demobilization of contractor equipment, the equipment had to be Locked Out and Tagged Out (LOTO) to ensure that a “ZERO ENERGY STATE” had been achieved before work commenced.

The contractor visited the ECR and with vessel crew locked and tagged out the system and started work. The power was verified to be locked out at the equipment and isolated at the breaker in the deck distribution box and work commenced.

During work scope the lock out key was passed to another member of the contractor team who proceeded to the ECR to remove the LOTO and re-energised the system.

The de-energised cable from the equipment had been disconnected and placed on the chassis but when the LOTO was removed from the ECR switchboard the cable became live with 440 volts and 100 amps going through it.

Assessing that the cable remained de-energized, another contractor employee had to move the cable to access the work and in that movement and action, his hand was very close to the live cable ends, the cable ends touched the chassis and arced causing a loud bang.

An immediate safety stand down was enforced by the contractor.

No one was injured as a result of this incident but there are a number of Causal Factors identified from the event:

- No vessel involvement in job content or planning and no contractor Project Manager designated for work
- No Job Safe Analysis developed as per bridging document requirements
- Permit required but was not raised for isolation
- No contractor work permit completed for LOTO #1 as required by the established bridging document
- Multi LOTO not used. Single key passed to Team Member
- Voltage discrepancy for breaker isolation results in contractor's inability to confirm zero voltage
- Deck Cabinet exposed to elements and not easily accessible. Not fit for purpose
- Electrical drawing not a controlled document. No drawn by, Checked by or approved by and no class / type approval
- No recognition of Labelling on adjacent breakers. Labelling insufficient
- Engineer not involved in isolation of deck electrical cabinet #2
- Superintendent did not follow up on concern with isolation of correct breaker
- Superintendent has a dual role, supervising one ROV crew and overseeing all ROV personnel
- Verification incorrect due to ECR LOTO #1
- Supervisor #2 removed LOTO with 4TH Engineer as witness

As a result of this incident, eighteen corrective actions have been identified and are in the process of being implemented.

This was an incident that that could have resulted in a fatality. It should not have happened and could have been prevented if all of the proven processes already in place had been used.

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