FOR ISSUE TO ENTERPRISE AND NETWORKS

SHE ALERT

Avon Road Substation Flashover

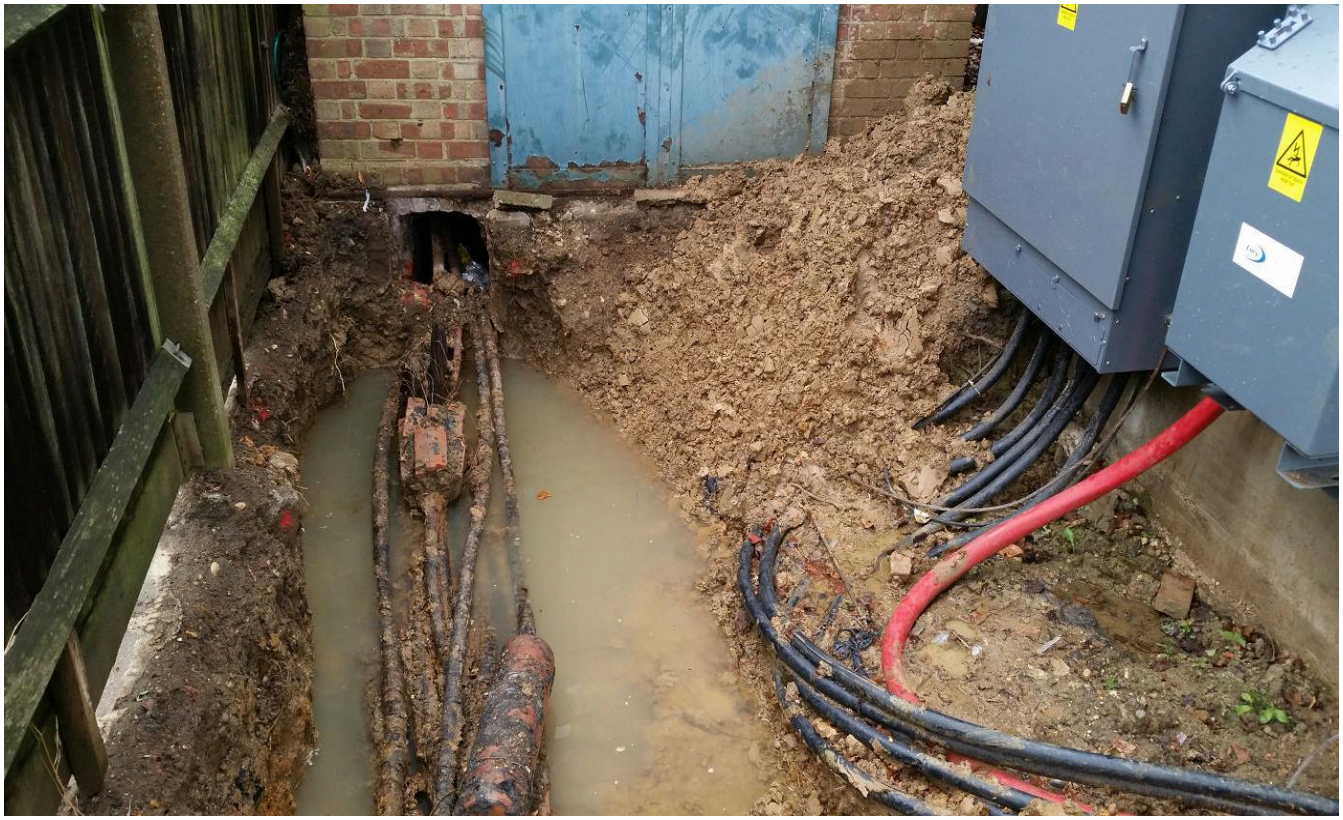
What happened?

After removing three abandoned PILCSWA cables within the required work area, a brick construction, bitumen filled joint was found sitting on top of a number of cables including an abandoned cable. This joint appeared to have two undamaged PILCSWA cables entering from one end and a short length of cut PILCSWA cable exiting from the far end. (See photographs below). The joint and attached cables needed to be moved to access the planned work.

The engineer carefully examined the brick joint and raised the cut PILCSWA cable end, noting the two other cables lift with it, and decided that this was a breech joint. The plans could not identify a Live breech joint within the substation so the engineer decided that the joint and attached cables were abandoned and dead. A hand operated insulated hydraulic cable cutter was clamped around both of the PILCSWA cables that entered one side of the breech joint and proceeded to cut the cables. Approximately 80% of the way through the cutting process a flashover occurred. Both engineers were wearing all of the correct PPE and no injuries were sustained.

Immediately after the flashover occurred all work stopped, all staff were removed from the substation and prevented from re-entering until the situation was made safe. A safety blanket was placed over the hydraulic cutters to prevent any possible ARC flash exiting the substation.

After safe isolation and investigation it was discovered that the joint was actually a Live pot end with an abandoned cut ended cable running underneath and attached to the underside of the joint.



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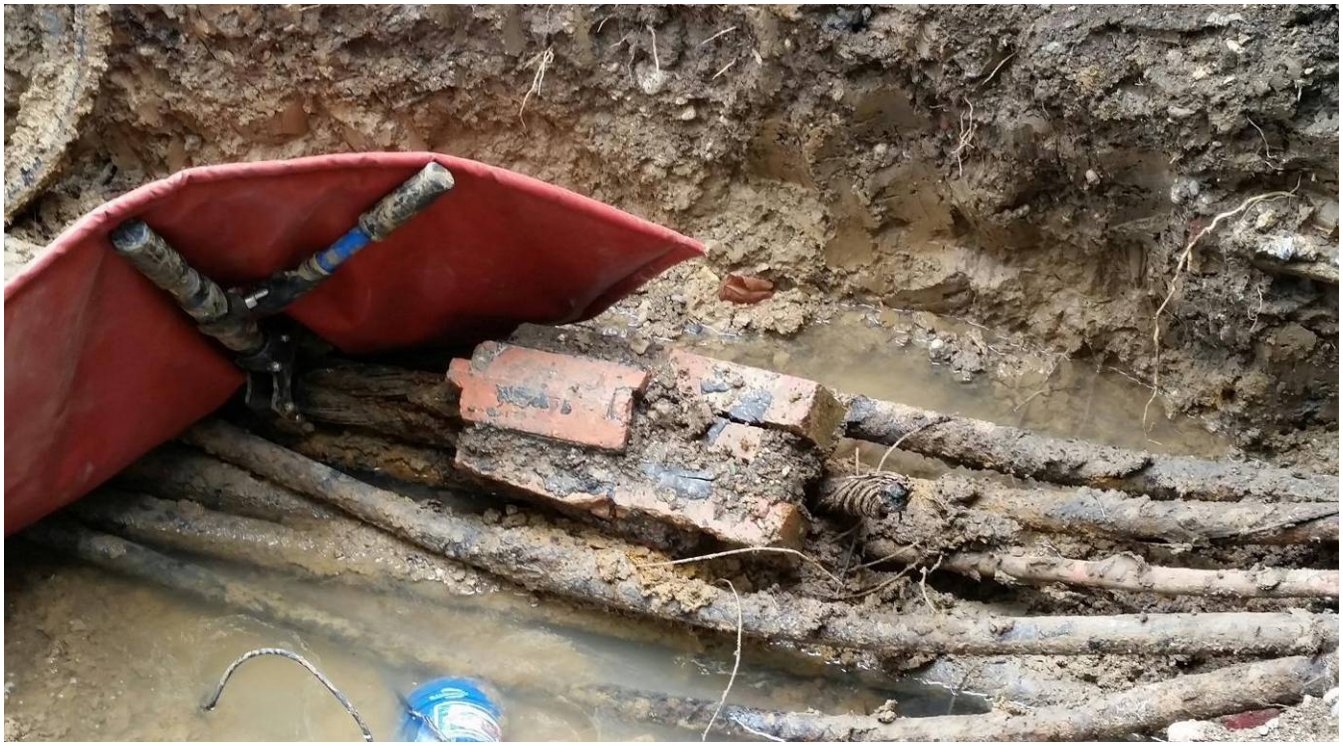

What action is required?

Everyone

1. Understand that a cut end is **NOT** proof that a cable is dead
2. Understand that all cables **MUST** be treated as **LIVE** until proven dead by approved means
3. Wear the correct PPE and use the correct tools..
4. Where there are redundant cables request the redundant cable records plans.
5. Ensure everyone has an input into on site risk assessment and information is shared.

Supervisor

1. Ensure all information is available before work starts including abandoned cable records.
2. Plan work in a timely methodical manor.
3. Carry out effective site engagements including checking Stage1 and Stage 2 IPP's.
4. Ensure everyone who works on LV cables complies with TG-PS-546
5. Ensure adequate space available to carry out the work safely.

Manager

1. Ensure training is carried out into the correct planning of Live LV jointing within a typical substation.
2. Ensure supervisors are carrying out effective planning and on site engagement.
3. Ensure everyone involved in identifying, working on, and setting to work on LV cables, is conversant with Low cable identification procedure - TG-PS-546.

Communication by (ü)	LSG	ü	Notice board	ü	Tool-box talk	ü	Team brief	ü
Communication complete by (ü)	1 week	ü	2 weeks		1-month		2-months	

Issued by: Peter Fish SSEC HV Services

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The Safety Family