

SHE Bulletin SB/318

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11kV Cable Strike at Acton Lane

The Incident

On 28th March 2012 a Balfour Beatty Civil Supervisor and two civil operatives from PFM Power sustained arc/flash injuries when they hit an 11kv SSE service whilst undertaking an excavation on National Grids Acton Lane Grid T3 66kv cable. They were not seriously hurt but all sustained lost time injuries.



Investigation findings

- The National Grid SAP and Contractors Supervisor
 - Relied heavily on their working relationship and local knowledge of the site
 - Failed to communicate key information on outage durations and clearly identify all onsite hazards
 - Failed to induct staff onto the site
 - Verbally changed the previously agreed RAMS and failed to record these changes
 - Failed to sensibly monitor the works

- The Excavation Team
 - Were not suitably authorised to Person / BESC
 - Had some new starters with limited civil experience
 - Where unclear on their roles and responsibilities
 - Failed to challenge the change in working arrangements
 - Were not confident in CAT and Genny operations.
 - Employed unsafe digging techniques
 - Failed to wear the issued PPE

Some of these deficiencies were related to the skill of the individuals involved; however a number of the immediate and root causes of the incident arose from violations of National Grid and Balfour Beatty procedures.

Immediate Action Required

When initiating ground work in the vicinity of Buried Services within the body of a substation, SAP's are required to –

- Establish and Maintain necessary communications with the Contract Supervisors to ensure that the works are coordinated and planned.
- If significant, then these arrangements should be agreed in a pre works meeting and recorded.
- Enact the Occupiers Representatives role and induct contractors into the HV environment, check basic authorisations, provide information on known site hazards and undertake sensible monitoring as necessary.
- Review the Contractors RAMS with regard to Safety from the System and if assessed to be self limiting in nature and thus to not require the issue of a National Grid Safety Document to manage Safety from the System, then as required under UKBP310 Section 2.1 the RAMS must be countersigned by the SAP with the statement.

“This SSOW is sufficient for **Safety from the System**”

- A copy of the RAMS must be retained on site by the SAP, it must also be communicated to the Contractor that all revisions and changes to the RAMS will require reassessing by the SAP.
- All Procedures, Guidance and RAMS shall conform to the processes outlined within HSG 47- Avoiding Danger from Underground Services.
- UK/BP/SE420 - Ground Penetration and Work Below Ground Level provides guidance to NG staff when undertaking work of this nature. Competent Contractors will have additional similar Processes and/or Procedures to manage this type of work.

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For further information regarding this Bulletin please contact your Line Manager.