

Shared Learning

Key learning following a serious incident



Short circuit bar irregularity at Fulwell Junction

Issued to: Wessex
Ref: P03 1617
Date of issue: 28/09/2016
Location: Fulwell Junction
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Overview

Whilst working on a number of faults in a short notice temporary isolation, a member of the CRE team fitted a short circuit bar in the wrong location, which caused the circuit breaker at Fulwell to trip.

The CRE team was working on hook switch 2095 and under the electrical control operators instruction had fitted two bars, one either side of the fault. The con rail had been tested and a bar fitted next to the hook switch, the CRE team member then went to the other end of what he believed to be the correct cable and applied the short circuit bar. This was in the wrong location, as the other end of the cable was on the up Shepperton and not the up Shepperton spur which was not part of the isolation.

He freely admitted he had incorrectly followed the cable and did not test the con rail as he had just tested the switch and applied the bar.

The up Shepperton and up Shepperton spur are at close proximity to each other. The work taking place was emergency faulting work, due to heavy flooding at Fulwell.

This was the third fault of five which required rectifying due to the flooding and the CRE team member was acting as Person in Charge of Temporary Isolation (PCTI), working under instruction of Electrical Control Room (ECR) as well as instructing the team on the ground and liaising with the P-Way provided COSS.

Underlying causes

During the investigation that followed it was discovered that:

- The short circuit bar had been fitted onto the Up Shepperton Spur vice the Up Shepperton road.
- The hook switch had been tested and the first short circuit bar fitted, however, the Person In Charge of the Temporary Isolation (PCTI) had failed to test the other end of the conductor rail prior to fitting the second short circuit bar.
- Due to the flooding which had occurred, the staff felt under a lot of pressure to get the infrastructure up and running as quickly as possible.
- The PCTI was responsible for multiple tasks, including, rectifying the faults, communicating with the Electrical Control Room Operator (ECRO) and working alongside the COSS, who was responsible for the line blockage during the fault rectification.

Key message

Follow the Life Saving Rules:

- Test before touch - Never assume equipment is isolated.
- Always test before applying earths or straps

If it is possible, share the work.

Delegating certain responsibilities to others may free you up to concentrate on those safety critical tasks that you have been charged with.

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