Title:
Close Call – Isolation Failure

Date of Alert:
25 January 2011

Description and Details:
A 1st year apprentice and tradesman were continuity testing a sub main to ensure correct connection prior to testing and energising. The tradesman had been working in the Site Main Switch Board (SMSB) and apprentice at the sub board end. The tradesman was having difficulties identifying a fault on the white phase so he instructed the apprentice to go to the SMSB while he went to the sub board to continue testing at that end. Both apprentice and tradesman had been working for 11 hours at the time of the incident. The apprentice was using a small piece of insulated single core cable and multi meter to test phase continuity. The tradesman stated that he had isolated the Service Protective Device (SPD) and all 3 breakers within the SMSB but had failed to Tag and Lock out the isolations. At this same time, Western Power was working on a new meter within the SMSB for a new substation, installed nearby. Both apprentice and tradesman were in communication via mobile phone. The tradesman instructed the apprentice to short out the phases on breaker 3 in the SMSB. The tradesman confirmed with the apprentice that he had isolated the SPD and in line breakers in the SMSB by switching them all to the off position earlier that day. As part of their commissioning of the sub station, Western Power switched the SPD in the SMSB back to the on position, as it wasn’t tagged or locked out, prior to the apprentice arriving to carry out his tests. The apprentice failed to test any of the circuits to confirm they were dead prior to working on them. Despite being instructed to short out the phases on breaker 3 in the SMSB, the apprentice shorted out the phases on Breaker 1 which was live. The apprentice received a large flash and was shaken.

Recommendations / Lessons:
As a result of this incident, a request has been sent to the host company to ensure that all tradesmen and apprentices are retrained on correct isolation (testing and tagging ) procedures. EGT Apprentices are not to perform testing on live switchboards. We have identified the need for all apprentices to use effective risk assessment processes to identify and control all hazards. Apprentice will receive a written warning for working on an un-isolated switch board.

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