

Event Notice - Defective Manufacture

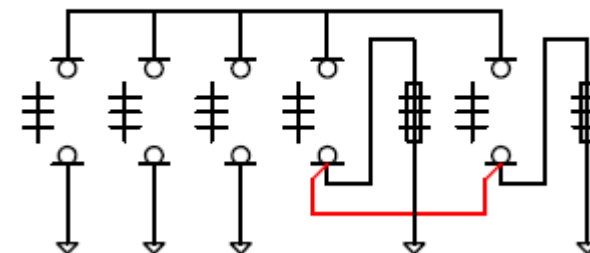
Magnefix Switching Unit Failed Tests

January 2017



Orion

3K2T SLD



Issue/Impact

During a recent switchgear replacement project, the scope was to install and commission a Magnefix type MD4 ring main unit (manufactured in 2016) with a configuration of 3 unfused and 2 fused switches.

During the commissioning process which included continuity testing it was found that there appeared to be a connection between switches of the fused ways that should not be there.

Investigation Findings

Further testing in our workshop has found that this MSU has been manufactured incorrectly with an internal connection between the load side of the switches on both fused units (shown on SLD in red). This defect would mean that livening of one transformer could also liven the second transformer if fuses have been installed in the second unit. Removing the switches of one unit does not necessarily de-energise either transformer.

Investigation has found this issue is not limited to one unit.

Lessons Learnt

Investigation is underway in consultation with the Manufacturer

Required Actions

Until the full investigation has been completed, the following actions are to be advised to all staff and contractors working on or commissioning any MSU with more than one fused switch unit

When commissioning, complete testing is required to ensure the MSU has been correctly manufactured. Continuity tests across poles referenced to the manufacturers single line diagram can prove this.

When energising and de-energising previously commissioned MSU's, testing to prove de-energised must be completed on the load side of the switch associated with the fused way prior to the removal of fuses. If energised, seek further advice