



FIRST ALERT

Wilton PDL56 Series 230V 15A Outlet Flashover



On the 2nd of May 2019, a suspected failure of the PDL56 series 15A outlet resulted in a flashover and a loss of the site 400V supply at Wilton.

A team member proceeded to plug a residual current device (RCD) protected extension lead into the PDL56 outlet in order to use a standard power tool. A flashover occurred immediately subsequently tripping the main 400V incomer breaker and clearing the site 400V supply. It is noted the RCD extension lead being used was new and current. The individual involved was not injured but was shaken by the incident.

An investigation is underway to understand the contributing factors, and as to why the protective grading was such that the entire 400V supply tripped. A few key points to note:



1. Wilton has a new EPCM 400V switchboard, with the main CB CT monitored. It is suspected the main incomer CB operated due to ground fault element picking up before overcurrent element on associated sub main MCB. New settings to be applied to main board to address this.

2. The sub-main outlet is protected by Lupus Midget MCB's. The coarseness of the Lupus Midget MCB's potentially did not grade correctly with the main 400V board. The behaviour of the Lupus Midget MCB's is to be investigated further to ensure compatibility.

3. The PDL56 outlet is badly damaged, but indication strongly suggests a failure of the PDL56 outlet. The outlet is 20 years old and located outside. Signs indicate moisture/condensation present inside switch leading to flashover. Team to check electrical condition of older outdoor outlets.

Immediate actions

- Work was immediately stopped, and the individual involved was checked for injuries.
- Broadspectrum were notified, who immediately isolated the sub main supply.
- NGOC were notified and following an on-site investigation the 400V supply was restored.
- An investigation was submitted into Maximo.

For more information, please contact:

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