



## VOR-M CIRCUIT BREAKER BUSHING SHROUDS

### OVERVIEW

During routine work activities involving the P&B VOR-M Circuit Breakers (CBs) at Ley St B, on two separate panels, the bushing extensions (white shrouds) on two CBs became detached from the bushings.

The shrouds remained in the spouts, preventing the shutters from closing. On one occasion, the shroud remained in the spout of the Live Busbar and required an outage to recover it.

A similar situation also occurred in October 2021.

### DETAIL

Ley St B – Bus Coupler 1 11kV VCB – whilst isolating Bus Coupler 1 circuit breaker for planned maintenance, a cluster shroud became detached from the VCB and remained in the Rear One Busbar spout, which was Live at 11kV. The Rear 1 Busbar was isolated to enable recovery of the stuck shroud.

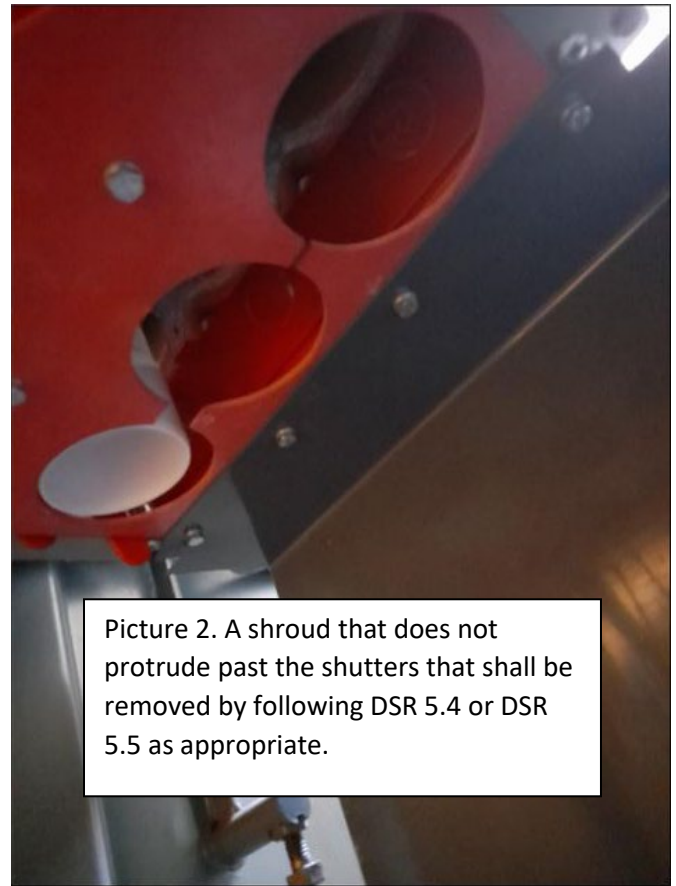
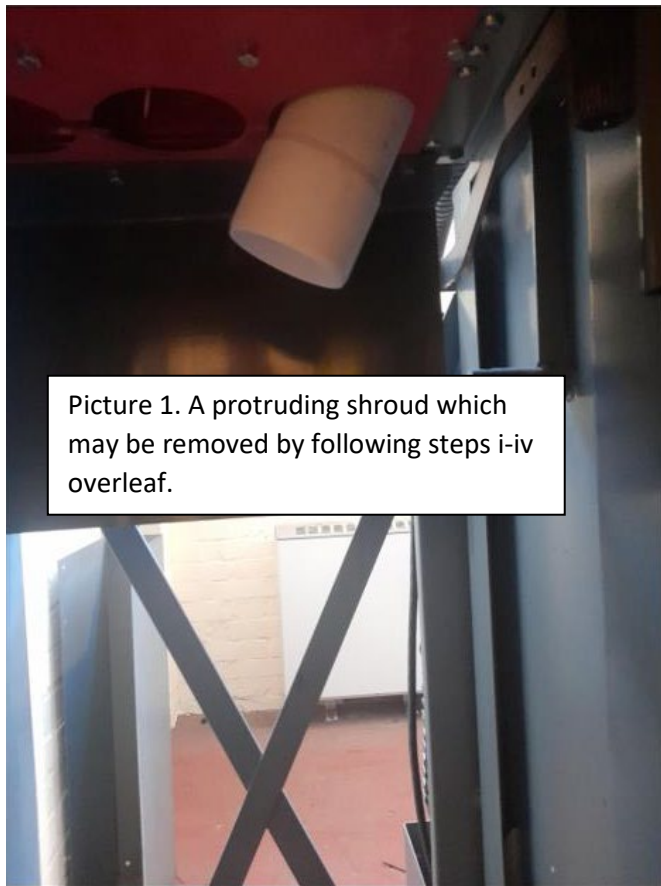
Ley St B – Panel 4 – 11kV VCB – whilst racking out the VCB, a shroud on one phase became detached from the VCB and remained in the feeder spout.

In both occurrences the team on site were vigilant, remained focussed and dealt with the unforeseen issues professionally and safely. This bulletin has been published to give guidance on the correct action to take, if staff are in a similar situation at any of the sites listed on the next page.

### WHAT YOU NEED TO DO

- If a shroud becomes detached from the bushing, do not attempt to remove it until the apparatus has been made safe in accordance with the Distribution Safety Rules.
- Follow the steps detailed in this bulletin to remove the shroud.
- See list of sites with VOR-M Circuit Breakers on page 2.
- See EBB 03-0139 for more detailed information.

- i. No attempt should be made to remove the shroud until the required busbar or incoming feeder circuit is isolated from all points of supply from where it can be made live.
- ii. All adjacent busbar or circuit spouts shall be locked using a safety lock and caution notice and have a danger label attached.
- iii. The spouts in which the shroud(s) are stuck shall be proven dead with an approved voltage testing device.
- iv. If the shroud protrudes below the shutter mechanism (picture 1), it can be removed under the personal supervision of a Multi Panel Senior Authorised Person. The individual removing the shroud shall wear a full-face visor and Class 1 HV Electrical Insulating Gloves.
- v. If the shroud does not protrude below the shutter mechanism of the Busbar or Feeder spouts (picture 2), the shroud shall only be removed under a Permit to Work, in accordance with Distribution Safety Rules 5.4. or 5.5 as applicable.
- vi. **Note:** Where a Circuit Main Earth cannot be applied at the point of work in accordance with DSR 5.5.2 (b), the removal of the shroud will be carried out whilst wearing a full-face visor and Class 1 HV Electrical Insulating Gloves and under the personal supervision of a Multi Panel Senior Authorised Person.



Site Names	Number of CBs
<b>LPN</b>	<b>58</b>
BROADWAY	28
CLAPHAM PARK RD	2
GLAUCUS ST	2
LEY ST B	24
MERTON (retrofit programme currently in progress)	(26)
TRINITY CRESCENT	1
WATERLOO RD	1
<b>SPN</b>	<b>13</b>
NORTH CHEAM 33/11KV	13
<b>Grand Total</b>	<b>71</b>

<b>Primary communication via Line Manager complete by (X)</b>	<b>X</b>	1 week		2 weeks		1 month
<b>Additional communication (X)</b>		Learning points	<b>X</b>	1 <sup>st</sup> 15		Team Brief slide
Line management must ensure appropriate employees understand the content of this document within the timescale shown. This document is subject to compliance audits after the communication deadline.						