Endeavour Energy

# Technical Bulletin

## TB 0350 - Categorisation of Substation Polymeric-type Bushing Defects for Substation Inspection Programs

**Date: 12/06/24**

### Purpose

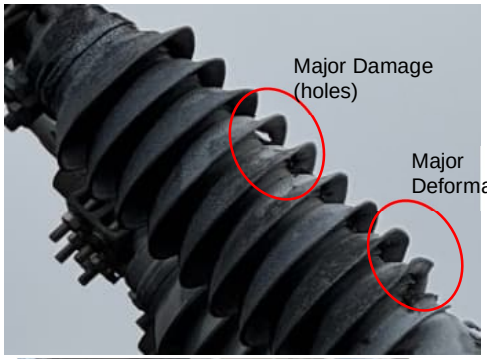
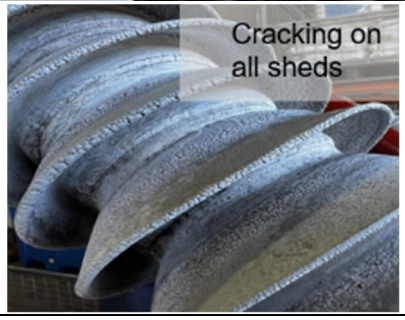
This technical bulletin has been issued to communicate the categorisation and prioritisation of defects on circuit breaker polymeric bushings, to assist in defect identification associated with the 6-monthly substation inspection activities.

### Background

Recently Endeavour Energy has experienced an increase in failure rates of polymeric bushings within substations resulting from defects not being recognised and actioned appropriately.

### Actions

Bushings shall be visually inspected as part of the substation inspection program and any identified as being in poor condition shall be defected, HD photos taken of each bushing, a SAP **Notification** raised (with photos attached) **to the SAP equipment number**, and replaced as per the actions in the below table.

| Defect Description | Photos | Actions |
|---|---|---|
| Polymeric Insulator – Major Damage/Deformation<br>- All sheds display cracks or holes.<br>- More than half of the sheds display major deformation or warping |  <br>  | Inspector to Raise SAP Notification:<br>- SAP Priority 6 (1 month)<br>- Attach Photos<br>- STD JOB 1TRBSH<br><br>Issue Notification through SAP to the Work Center.<br><br>Work Centre will review and create WOs as required. |

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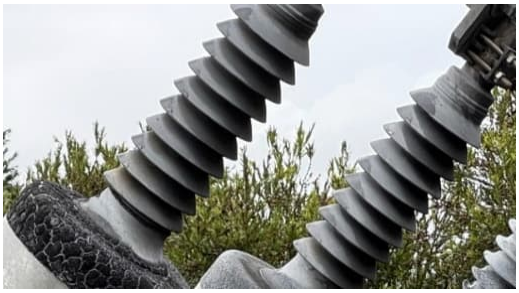
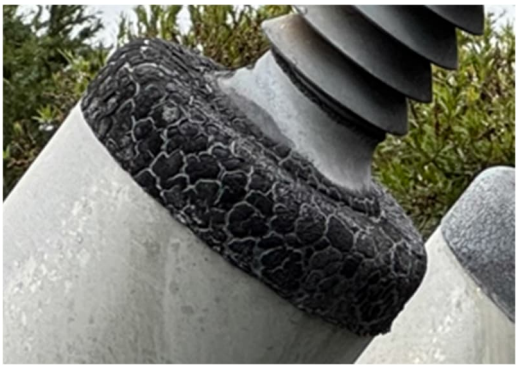
| Defect Description | Photos | Actions |
|---|---|---|
| Polymeric Insulator – Minor Damage<br>- Damage to 3 or more sheds.<br>- Cracking on 3 or more sheds<br>- Insulators have lost their hydrophobic properties |  | Inspector to Raise SAP Notification:<br>- SAP Priority 9<br>- Attach Photos<br>- STD JOB 1TRBSH |
| Polymeric CT Cover/Boot – Damage<br>- CT cover boot had lost its hydrophobic properties.<br>- Significant cracking/damage on CT cover |  | Inspector to Raise SAP Notification:<br>- SAP Priority 9<br>- Attach Photos<br>- STD JOB 1TRBSH |

**Photos are required of all six bushings on a CB with any singular bushing defect to assist in the PMO and Asset Management prioritisation and defect tracking process.**

The standard job 1TRBSH has been created for tracking and rectifying these defects. Activities required as part of the standard job include:

- Replacement of all six (6) bushing on the CB
- Replacement of the CT cover

This technical bulletin applies to the polymeric bushing of any asset type in Zone and Transmission Substations.

### Implementation

The contents of this Technical Bulletin shall be implemented immediately and be maintained until such time the Technical Bulletin is withdrawn.

### Contacts

For further information contact:

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