

Voltage detector device (VDD) – Storm Sections

WHAT HAPPENED?

The purpose of this SS is to further raise Service Provider staff awareness on the safe use of VDD's and the need to use either a storm extension or all weather stick when using a VDD in wet weather conditions.

The VDD must be suitable for the power system voltage and correctly assembled for the duty and atmospheric conditions before use.

- 1, Only sticks fitted with a storm extension or sticks fitted with rain sheds (known as "all weather sticks") are to be used if conditions are wet or liable to become wet, during use.
- 2, The VDD may not be used in extremely adverse weather.
- 3, If telescopic sticks are used, failure to lock each section correctly can cause the stick to collapse and cause injury



IMMEDIATE ACTION TAKEN

- Inspect existing VDD units and check if storm extensions or all weather sticks are available and fit for purpose. Review written procedures in regards to their use.
- Discuss this SS with field staff and local Safety Champion in detail. Some formal training in the use of storm extensions may be required. An educational Video showing the correct use of VDDs and storm extension's is available via this link <https://vimeo.com/247384672>

ROOT CAUSE

In some cases there is a general lack of awareness in regards to the requirements of Transpower service specifications on the correct use of these devices.

In some cases the formal training in their use does not seem to have covered the requirements around the use of storm extensions.

LEARNINGS

- When using telepoles fitted with storm extensions, the insulated/live end section must be fully extended to ensure its insulation value is utilised. This seems to be the cause of the flashover marks on one of the units in the left picture (old VDD stick found at BPE training centre)
- Ensure staff are familiar and trained on all aspects of VDDs; maintain competency and new staff are inducted in their use.
- Reference to the use of VDDs can be found in TP.SS 07.23 & TP.SS 07.24 Work site temporary earthing and bonding of transmission lines & HV switchyards