



SOP 438 UPDATE: SADTEM 33kV BBY2 VT

A disruptive failure occurred at L3 VT on an incomer bay of the Wishaw 33kV substation on the 8th Jan 2024. A fragment of the base housing was ejected approximately 15m away from the VT. No one was harmed by the incident. Another VT of the same type failed on 18th Jan 2024 but without expelling debris.

[SOP 438](#) has been applied.

The scope of the restrictions is listed below, it has been informed by a detailed ALARP risk assessment.

This Express supersedes EXP-10-553.

There is a 20m access restriction to all SADTEM BBY2 VTs. Under the restriction, time limited entry to the restricted zone is permissible with the equipment live. The following exposure limits apply for single person entry. Exposure limit to 1 unit is 90 mins per day, 3 units is 30 mins per day and 6 units is 15 mins per day.

It is prohibited to enter the restricted zone with the equipment live for longer periods than specified.

Exposure limits are reduced if multiple persons enter (Exposure limit ÷ Number of persons).

Where the VT is less than 20m from fence, Substation Managers should consider mitigation measures according to each Substation's design layout, to protect the public.



VTs at incomer bay



Failed VT

Recommendations and action points

- Distribution and Transmission substations operations shall apply a 20m access restriction to all SADTEM BBY2 VTs.
- Under the restriction, govern staff to the limited access times to the restricted zone, in line with exposure times as described above.
- Where the VT is less than 20m from the substation fence, consider mitigation measures to protect the public.
- The incident is under investigation by the manufacturer to determine the root cause of the failure. Depending on the findings, P&T will consider if additional mitigation actions can further increase exposure time. For example: if PD monitoring is acceptable to inform the ALARP. A further update will be issued in due course.
- As a reminder, Risk Management Zone (RMZ) guidance for SPEN staff can be found in: [OPSAF-04-026](#).