SP ENERGY NETWORKS

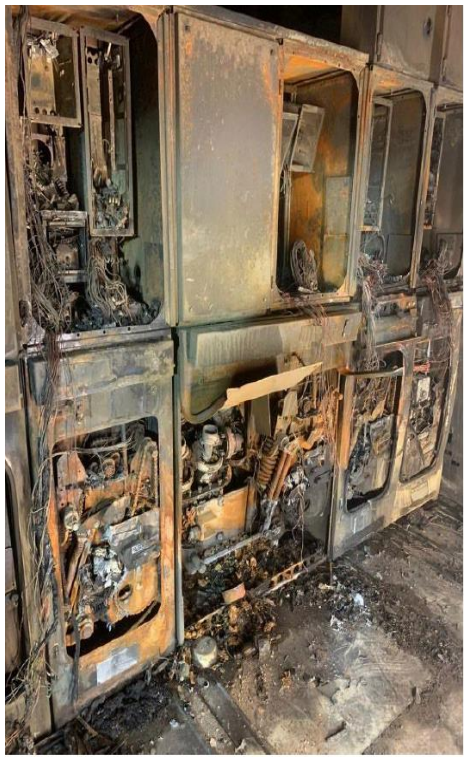
SOP 427 - Yorkshire Switchgear YSF6

On the 29th March 2022, a Yorkshire Switchgear Type YSF6 11 kV gas circuit-breaker (GCB) in UKPN failed disruptively resulting in fire which destroyed most of the 11 kV switchboard in the substation.

Following initiation of a “Spring not charged” alarm, Field Operatives attempted to manually charge the springs. Upon slightly turning the charging handle, the spring charging motor appeared to operate. At this point, the field operatives exited the switchroom as this outcome was unexpected. The GCB failed disruptively shortly afterwards.

Investigation into the cause of the failure is being carried out by UKPN in conjunction with the switchgear manufacturer.

As a result of this incident in UKPN, some immediate precautions are being taken in SPEN until the root cause of failure has been established. SOP 427 has been applied (OPSAF-16-427) in SPEN.



YSF6 11 kV GCB switchboard that failed in UKPN

Recommendations and action points

- All Open and Close operations on YSF6 GCBs shall be carried out remotely using either remote control facilities or remotely on site via control panels (located in a separate room) or using an Approved umbilical device.
- Local Open and Close operations on YSF6 GCBs shall only be carried out after busbars and circuit have been made not Live. Local operations of YSF6 GCBs to apply or remove a Circuit Earth is permissible with busbars Live.
- If the spring charging motor fails to charge after an operation, no attempt shall be made to manually charge the springs with the associated busbars or circuit Live.
- For manual operated spring charging mechanisms, spring charging shall only be permitted with the GCB in the Open position. No attempt shall be made to manually charge springs with the GCB in Closed position.



Healthy YSF6 11 kV GCB switchboard