

Estates and Facilities Alert

IMMEDIATE ACTION

Ref: EFA/2011/005 Issued: 12th December 2011
Gateway Reference: 17012

Device

High-Voltage (HV) 11Kv Switchgear – (Siemens) - Reyrolle ROK and ROKSS ring main units.

Problem

- Potential failure of the HV 11KV Reyrolle-ROK and ROKSS Switchgear manufactured up to and including 1982.
- Undetermined cause resulting in an internal fault.
- The unit failed when operated with expulsion of oil and a fire.

Action by

Managers and staff responsible for the procurement, supply, maintenance and asset management of the electrical High-Voltage (HV) infrastructure and the operating (switching) of electrical HV switchgear.

Action

- The appointed Authorised Person AP (HV) for the site should confirm if this notice is applicable to equipment installed and if confirmed ensure the following actions.
- LIVE operation of the switchgear is to be suspended.
- Following dead operation of the switchgear, access to the substation after re-energised is prohibited for the following **24 hours**.
- Entry to substations is restricted to those staff undertaking essential operation of the switchgear.

Contact

Siemens Transmission & Distribution.
(Acting on behalf of Reyrolle)
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Problem

1. An incident occurred to a Reyrolle ROKSS 11KV Ring Main Unit of the type manufactured up to and including 1982.
2. Under the Energy Network Association (ENA) NEDeR's notification scheme, Scottish Power issued a Dangerous Incident Notice (DIN) Ref. DIN 2010/0017/02 dated 16th November 2011 and a Suspension of Operation Practice (SOP) Ref. SOP 2011/0374/00 dated 15th of November 2011.
3. An initial joint investigation between the manufacturer and Electricity North West ENW failed to identify of the root cause of the failure. This was mainly due to the damage sustained by the failed unit.
4. Additional investigation centered on the mild steel bolts which were used incorrectly to connect the connector block to the fixed contact block and busbar. The bolts were suspected of being torqued up to the value for high tensile bolts causing them to shear whilst passing fault current.
5. After additional investigation it has proven impossible to replace faulty bolts on the Reyrolle ROKSS and RMU switchgear without causing further detrimental effects.
6. As a result of the issue of the Suspension of Operation Practice (SOP), the manufacturer has re-entered discussion with ENW in an attempt to either have the SOP withdrawn or amended.
7. Until conclusion of further investigation by the manufacturer, the corrective action identified and shown below shall be followed by all staff that operate or maintain HV networks on which the Reyrolle –ROK- ROKSS ring main units are installed.

Action

8. All appointed Authorised Person AP (HV), operators and service and maintenance providers should be made aware of this EFA and the Suspension of Operation Practice (SOP) Ref. SOP 2011/0374/00 dated 15th of November 2011 and the Dangerous Incident Notice (DIN) Ref. DIN 2010/0017/02 dated 16th November 2011.
9. Operators and service and maintenance providers of the High-Voltage (HV) networks switchgear should carry out a survey of their equipment in use on healthcare premises to identify this particular make and model type.
10. Operators and service and maintenance providers should ensure a copy of this EFA is displayed on the affected switchgear.
11. Operators and service and maintenance providers should contact the manufacturer to seek advice on an individual case-by-case basis.
12. The following actions are in line with the revised operational practices imposed by Scottish Power in their Suspension of Operational Practice (SOP).
13. **LIVE** operation of the switchgear is to be suspended.
14. Following dead operation of the switchgear, access to the substation after re-energising is prohibited for the next 24 hours.
15. Entry to the substation should be restricted to essential operational activities only. Entry should only be permitted if the fault potential fault level is significantly reduced by other HV switching arrangements.

Suggested Onward Distribution

- Risk Manager,
- Primary Care organisations,
- HV service providers,
- Those responsible for the provision of Estates and Facilities services,
- All Maintenance Estates Managers,
- HV Authorising Engineers,
- HV Authorised Persons (AP),
- Director of Estates and Facilities,

Additional information for England

The above sections of this Alert were compiled by Department of Health.

Action required by this alert should be **underway by: 15th December 2011**

Action required by this alert should be **completed by: 13th January 2012**

Enquires should quote reference number EFA/2011/005 and be addressed to:

Defects & Failures

Department of Health
Estates & Facilities Division 3N09
Quarry House,
Quarry Hill,
Leeds LS2 7UE
Mb-defects&failures@dh.gsi.gov.uk

HOW TO REPORT DEFECTS & FAILURES

Defects and failures relating to non-medical equipment, plant and buildings should be reported to the Department as soon as possible. Advice on what needs to be report can be found in DH (2008) 01. Defect and failure reporting is an on-line only reporting facility, available on the NHS Information Centre website at www.ic.nhs.uk

This Alert can be found on the following websites
<http://www.dh.gov.uk> and <https://www.cas.dh.gov.uk>

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