



## 1 SCOPE

This document details the application of SOP 179 issued by the Electricity Association.

## 2 ISSUE RECORD

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Issue Date	Issue No	Author	Amendment Details
October 2000	1	Esther Stewart	Initial Issue in New Format: 4 Page Document

## 3 ISSUE AUTHORITY

Author	Owner	Issue Authority
Esther Stewart	Roger Bracey	Roger Bracey Group Head, Standards .....



#### 4 SOP DETAILS

**TYPE:** REYROLLE TYPE ROKSS 11kV RMU  
ALL ROKSS, ROS & ROK UNITS

**ORIGINATING REC:** SCOTISHPOWER

**DATE:** 16/04/97

**NO. INSTALLED IN MANWEB:** 0  
No record of any of the listed equipment on the Manweb network.

**NO. INSTALLED IN SCOTLAND:**

**STATUS:** Ban on Live Operation.

**REASON:** Catastrophic failure resulting in fatal accident.

**UPDATE:**

The inquiry into incident DIN 97/18 has concluded that the failure of the switchgear concerned resulted from electrical deterioration of the bakelised paper inter-switch barriers. These were found to have been manufactured from material that was not to the required specification. It is possible that other similar barriers were fitted to units during the periods 1984/1987. Scottish Power are collaborating with Reyrolle switchgear to develop an on site test method to identify suspect barriers.

For units manufactured during 1984 and 1985 (Ser. No. prefix 3R or 3S) AND units manufactured with Bekelised paper inter-switch barriers during 1986 and 1897 (Ser. No. prefix 1986 or 1987 with suffix X1): No live operation and no work to be carried out with the unit live.

Units with fibreglass barriers manufactured during 1986 and 1987 (Ser. No. prefix 1986 or 1987 with suffix X2 or X2A) are NOT subject to this restriction.

This restriction may be lifted on individual units once the barriers have been tested and found to be satisfactory or replaced.

The inquiry into incident DIN 97/13 has not yet been reported, hence the continuing ban on the use of test prods with the equipment live.



**18/04/97** Initial investigations have identified the presence within the switchgear of tank of a metal guide rod from the cable test prods. Reasons for the presence of the rod are being pursued. The operational ban on live operation of ROKSS, ROS and ROK switchgear is being continued as a precautionary measure. All external test prods are being inspected for integrity and staff are being reminded anyway of the need to inspect such equipment before use. A board of inquiry into the incident is continuing its investigations.

**23/04/97** Restriction in Manweb has now been extended to not only include Reyrolle type ROKSS, ROK, ROS but also types ROSSS, RMS, RMK, OKSS switchgear.

- (1) No live operation of switchgear
- (2) No work to be carried out on the equipment while any part of the equipment is live at high voltage.

**02/05/97** Ban extended to prohibit access to all substations containing live switchgear of the above noted types. This part of the ban to be reviewed when investigation of incident reported on DIN 97/18 is completed.

**17/07/97** The following operational restriction has been imposed from the above date and supersedes restrictions notified to you under SOP 179 dated 02/05/97.

Reyrolle OKSS: No use of test prods while equipment live.

Reyrolle ROKSS, ROK, ROSSS, RMK, RMS: No use of test prods while equipment live. (this applies to ALL units).

**17/02/99** The following operational restriction has been imposed from the above date and supersedes restrictions on the use of test prods notified to you under SOP 179 dated 17/07/97.

This Operational Restriction was originally issued after the incident at Barrhead Local Secondary Substation. At this time a ban was imposed on the use of test prods on Reyrolle Type ROKSS, ROSSS, ROK, ROS, RMS, RMK and OKSS 11kV switchgear whilst any part of the switchgear was still live. A modified design of cable test prods which eliminate the possibility of the guide rod becoming detached has now been approved for use with Reyrolle Type ROKSS, ROSSS, ROK, ROS, RMS and RMK 11kV switchgear units.

The new design of cable test prods have now been issued to all Regions in Power Systems and all earlier versions of test prods for this type of switchgear have been removed from service.



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**Accordingly the Operational Restriction on the use of test prods on all Reyrolle Type ROKSS, ROSSS, ROK, ROS, RMS and RMK 11kV switchgear units is lifted forthwith.**

An alternative design of test prod for use with Reyrolle Type OKSS switchgear is still being sought.

**The Operational Restriction preventing the use of cable test prods on Reyrolle Type OKSS 11kV Ring Main Units will shall remain in force until further notice.**

**REMEDIAL ACTION:**