



MINISTRY OF DEFENCE

SAFETY ALERT

Subject: Schneider Electric Merlin Gerin Ringmaster 11 kV Ring Main Units - Types RN2c, RE2c and RN6c

Number: SA 12/11

DIO Secretariat Sponsor: RA Cawthorne

Date of issue:
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Contact if different from above Sponsor:

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Who Should Read this:

Who Should Read this: CEstOs, Top Level Budget Holders, Project Sponsors, MOD Project Managers and others within the IPT (for both Prime, PFI/PPP and traditionally procured contracts), Defence Estates Advisors and Property Managers/Site Estate Representatives with responsibility for MOD projects and Property Management Works Services (including the legacy work of EWCs/WSMs) Coordinating Authorising Engineers, Authorising Engineers Electrical, Authorised Persons Electrical, purchasers and installers of final electrical distribution equipment.

When it takes effect: Immediately

When it is due to expire: No Expiry except on update.

Document Aim:

To impose changes to operating procedures on 11 kV Merlin Gerin Ringmaster RN2c, RE2c and RN6c Ring Main Units manufactured by Schneider Electric.

1. Introduction

- a. COMPLIANCE WITH THE CONTENTS OF THIS ALERT WILL ENABLE COMPLIANCE WITH THE HEALTH & SAFETY AT WORK ETC ACT 1974 AND ITS SUBORDINATE REGULATIONS.
- b. The appropriate MOD officer shall arrange for the Maintenance Management Organisation (MMO) contractor to carry out all actions in accordance with this Alert.
- c. Any work required as a result of this Safety Alert must be carried out in accordance with JSP 375 Volume 3 – MOD's Safety Rules & Procedures.
- d. On MOD Establishments occupied by United States Visiting Forces (USVF) responsibility is jointly held by USVF and DIO (USF). At base level this jointly managed organisation is to take appropriate action to implement the contents of this Alert. Where this Alert contains procedures which differ significantly from USVF practice DIO (USF) code of practice will be issued.

2. Background

- a. This Safety Alert has been raised in response to Dangerous Incident Notification (DIN) 2011/0056/00 dated 28 Oct 11 and Suspension of Operational Practice (SOP) 2011/0373/00 dated 01 Nov 11 issued by the Energy Networks Association.
- b. DIN 2011/0056/00 notified the following incident:

Work was planned on a radial overhead line (OHL) connected to the No 1 ring switch of the Ringmaster RN2c and the No 1 ring switch was opened and safety locked. Subsequently the associated earth switch was closed. No unusual mechanical response was noticed by the operator during these operations but while testing the OHL section (before earthing) the line was found to be live.

- c. Initial findings from the investigation are that a disconnecting operating shaft drive pin had failed and fallen from the mechanism. It has been confirmed that the ring switch contacts did not move from the closed position.

3. Requirement

- a. **URGENT:** Addressees of this Safety Alert are to bring its contents to the attention of their Authorising Engineers (Electrical) (AE(E)), or equivalent, in order to make them aware of the potential risks posed by Merlin Gerin Ringmaster RN2c, RN6c & RE2c RMUs manufactured by Schneider Electric which may be in service on their sites.
- b. **AE(E)s are to ensure that the restriction identified below is put in place with immediate effect.**

Product	11 kV RN2c 630A non extensible compact Ring Main Unit (RMU)
Manufacturer / Supplier	Schneider Electric
Problem	RMU switch did not perform the open/earth operations as indicated
Scope	<p>The incident occurred with a 630A RN2c RMU. Urgent investigation has been commenced by Schneider Electric to determine the cause of the failure and whether other units may be affected. Until the results of the investigation are known, as a precautionary measure, the additional operating procedures shall apply to all of the following RMUs:</p> <p>11 kV RN2c 630/200A non extensible compact RMU 11 kV RE2c 630/200A extensible compact RMU 11 kV RN6c 630/630A non extensible compact RMU</p> <p>The changes to the operating procedures only apply to the ring switches. It does not apply to the Tee-off circuit breaker on any of these product types.</p>
Risk	Equipment connected to the affected RMU ring switch will remain live even when the ring switch is opened and the switch indicator displays that it is open. Additionally, the equipment connected to the affected RMU ring switch will not be earthed even when the associated earth switch is closed and the switch indicator displays that it is earthed. Dangers associated with working on live equipment and/or inadvertent loss of electrical supply if live equipment is earthed.
Action	<p>Work on equipment connected to Merlin Gerin Ringmaster RN2c, RN6c and RE2c ring switches shall, where practicable, have at least two earths applied to the section being worked on.</p> <p>In situations where two earths cannot be readily applied additional HV point(s) of isolation shall be established to ensure that there is no risk of single switch failure.</p> <p>In all cases, before work is carried out on any cable connected to the RN2c, RE2c and RN6c ring switches the cable shall be spiked in accordance with JSP 375 Volume 3 Chapter 3.</p>