



MINISTRY OF DEFENCE

**Defence
Infrastructure
Organisation**

SAFETY ALERT

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

Number: SA 02/12

DIO Secretariat Sponsor: RA Cawthorne

Date of issue:
2 February 2012

Contact if different from above Sponsor:

Andrew Dunn

Principal Electrical Infrastructure
Professional & Technical Services, Hard FM
Defence Infrastructure Organisation
Kingston Road, Sutton Coldfield, West Midlands B75 7RL

Tel: 94421 3622/0121 311 3622

Email: DIOOpsNorth-PTS8@mod.uk

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.

Health and Safety

Document Aim:

- To provide an Update to Safety Alert 12/11 that covers the imposed changes to operating procedures on Schneider Electric 11 kV Merlin Gerin Ringmaster RN2c, RE2c and RN6c Ring Main Units.
- This Safety Alert (SA) provides the Product Safety Notice (PSA -111201-318) that identifies the serial number range of the affected units which was not known when

Safety Alert 12/11 was published and also provides details of how this operational restriction may be lifted. **Safety Alert 12/11 remains in force.**

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. Following investigations Schneider Electric has confirmed that the affected units are as follows:</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>All manufactured from 17 November 2006 to 31 October 2009 with serial numbers between 100204905 and 100811684. 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	<p>Equipment connected to the affected 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 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.</p>
Action	<ol style="list-style-type: none"> 1. Identify suspect units on your site from the serial numbers and date of manufacture provided in the Product Safety Notice – PSA 111201-318. Complete and return the confirmation of receipt of the Product Safety Notice if you have not done so already. 2. <u>For all suspect units the Actions in Safety Alert 12/11 remain in force.</u> 3. The Product Safety Notice (PSA 111201-318) refers to a visual check in an attached document (IBMS Document PGRW-5SDGG3-Rev1) to visually confirm the correct operation of the ring switch mechanism. The use of this Inspection Process is at the AEs’s discretion and <u>is not to be used to replace the Actions given in Safety Alert 12/11.</u> 4. The operational restriction may be removed when either a

	representatives of the manufacturer[Schneider] have inspected the suspect unit(s) and confirmed it/they are not affected and can be returned to normal service, or the manufacturer's recommended modification has been successfully implemented.
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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 above is put in place with immediate effect.

c. Any action required by this Safety Alert is to be taken at the earliest possible opportunity. The earliest possible opportunity should be established commensurate with operational requirements and the risk to personnel and property; with the highest priority given to heavily used/urgent operational facilities and the lowest to unoccupied, rarely occupied or non essential facilities.