SAFETY ALERT

Reyrolle YMV 2 Vacuum Circuit Breaker VT fuse spring assemblies

Number: SA 06/07

DIO Secretariat  Sponsor: RA Cawthorne

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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:

Document Aim: To identify a potential problem with Reyrolle YMV 2 Vacuum Circuit Breaker VT fuse spring assemblies and notify recipients of the availability of replacement parts.

BACKGROUND:

1. The background to this problem is detailed in the Energy Networks Association DIN’s 2007/0072/00 dated 24th August 2007, 2007/0073/00 dated 29th August 2007 and 2007/0090/00 dated 16th October 2007 which are attached as appendices to this information note.
REQUIREMENTS:

2. All YMV switchgear manufactured in or prior to 1989 that has not previously been modified is potentially at risk of failure.

3. Recipients of this Information Notice should bring the contents to the attention of their Authorising Engineer Electrical (AE(A)) or equivalent to assess what action if any is appropriate.

   3.1. If it is considered appropriate to replace the suspect components the modified VT fuse spring assembly units is available with article number 1323A1408 from Siemens T&D.

   Siemens advise that there is a minimum spares order charge of £250.

4. Points of contact (Siemens):-

   Mr Ed Wright for technical support, Telephone 0191 401 5468
   Mr Dick Richardson/ Mr Stephen Berry for spares, Telephone 0191 401 5102

APPENDIX A: DIN 2007/0072/00

APPENDIX B: DIN 2007/0073/00 (this DIN provided to show aggressive discharge activity)

APPENDIX C: DIN 2007/0090/00 (this DIN provided to show damage to the fuse carriers)
From: Bernard Pontecost                ENA Ref: DIN 2007/0072/00
Tel: 020 7706 5100       (Please inform switchboard that your enquiry relates to NEDeRS)
Fax: bernard.pontecost@energynetworks.org  Date: 23 Aug 2007

DANGEROUS INCIDENT NOTIFICATION (DIN)
(This form to be used only if a SERIOUS injury or fatality has or could have occurred. See Engineering Recommendation R1/8 for notes of guidance on use)

Incident Date/Time: 20 Aug 2007
Manufacturer: Reyrolle
Equipment: Circuit Breaker - YMV2 - Reyrolle
Serial Number: E1987 YMV 338
System Voltage: 11 kV   Year Manufactured: 1967
Rating: 1250A   Date Commissioned:
Indoor/Outdoor: Indoor   Date Last Maintained:
Op. Environment: No exceptional environmental factors
Area of Failure: Voltage Transformer
Cause(s): Under Investigation

Other Plant Affected:
Hyperlinks: 1

Incident Description: When the VT fuses were withdrawn from the switchgear, due to loss of supply to a power transducer, it was found that one fuse was not making contact with the primary connector due to latching of the rear spring tensioning system over the shoulder of the spring supporting pin. Conversation with Siemens revealed that a modification had been carried out on the spring assembly unit where a collar on the contact button was added in 1989. The article number of the modified component is 1323A1408.

Injuries Sustained: None
DANGEROUS INCIDENT NOTIFICATION (DIN)

Incident Date/Time: 27 Aug 2007
Manufacturer: Reye110
Equipment: Circuit Breaker - YMV2 - Reye110
Serial Number: E1987 YMV 340
System Voltage: 4.18kV
Rating: 1250A
Indoor/Outdoor: Indoor
Op. Environment: No exceptional environmental factors
Area of Failure: Voltage Transformer
Cause(s): Under Investigation

Other Plant Affected: 1

Incident Description: Whilst checking the VT fuse spring assembly units resulting from DIN 2007/07/2/00 another VCB VT fuse spring assembly unit was found to be in an extremely poor state. Replacement parts were installed but coincidently the VCB would not switch to "on" due to a mechanical failure. Siemens attended site but could not repair the VCB. A spare VCB has temporarily replaced the defective VCB and the system was energised and the spare VCB operated correctly. However, when re-configuring the network the control engineer heard discharge from the spare VCB. Siemens visited site and carried out the necessary repairs to the VT terminals etc and the system was operationally restored. The defect concerning the VCB is thought to be related to wear on a clip. The faulty VCB to be returned to Siemens factory for repairs and report.

DIN 2007/07/2/00
DANGEROUS INCIDENT NOTIFICATION (DIN)
(This form to be used only if a SERIOUS injury or fatality has or could have occurred. See Engineering Recommendation R/6 for notes of guidance on use)

Incident Date/Time: 14 Oct 2007 12:43
Manufacturer: Rayrolle
Equipment: Circuit Breaker - YMV2 - Rayrolle
Serial Number: 1987 YMV2 5
System Voltage: 11 kV
Rating: 2000A
 Indoor/Outdoor: Indoor
Year Manufactured: 1987
Date Commissioned: 01/07/1987
Date Last Maintained:
Op. Environment: No exceptional environmental factors
Area of Failure: Voltage Transformer
Cause(s): Partial discharge activity
Other Plant Affected:
Hyperlinks: 

Incident Description: Failure of GT2 Yellow phase VT fuse due to incorrect contact pressure. This resulted in partial discharge and overheating of the fuse end cap and VT contact, leading to eventual failure.

Injuries Sustained: None
IN XX/07 Appendix B
REYROLLE YMV2 SWITCHGEAR VT FUSE SPRING ASSEMBLY UNIT
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