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अनुसंधान अभिकल्प और मानक  
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लखनऊ - 226011

Government of India - Ministry of  
Railways

Research, Designs & Standards  
Organization, LUCKNOW - 226011

No. EL/3.2.61

Dt. 27.06.2014

All Chief Electrical Engineers,

**SPECIAL MAINTENANCE INSTRUCTION NO. RDSO/2014/EL/SMI/ 0281  
(REV. '0') - dated 27.06.2014**

**1.0 Title:**

Use of Loctite 518 in place of RTV 1080 to seal upper and lower insulators of Schneider make single bottle VCBs type 22 CB.

**2.0 Brief History:**

- 2.1 RTV 1080 for sealing upper and lower insulators at middle flange of Schneider make single bottle VCBs is being used by the Railways as same is part of the consumables for carrying out scheduled maintenance of these VCBs.
- 2.2 While investigating the flash over cases of Schneider make VCBs, sign/marks of moisture ingress has been observed from the middle flange where upper and lower insulators are sealed with the application of RTV 1080.
- 2.3 An upper and lower insulator has been sealed with Loctite 518 in place of RTV 1080 and then VCB assembly was tested for IP 67 test at ERDA, Vadodara successfully. Loctite 518 is used for sealing close fitting joints between rigid metal faces and flanges.
- 2.4 In compliance to Minutes of Meeting dt. 13.06.2014, a Special Maintenance Instruction has been prepared for sealing upper and lower insulators of Schneider make single bottle VCBs with Loctite 518.



### **3.0 Object:**

To improve sealing between upper and lower insulator of Schneider make single bottle VCB to eliminate any chance of moisture entry and consequential flash over in the VCB.

### **4.0 Modified Instructions:**

- 4.1 Railways shall use Loctite 518 in place of RTV 1080 for sealing of upper and lower insulators of Schneider make single bottle VCBs during scheduled/unscheduled maintenance of these VCBs.
- 4.2 Area of application and method for use of Loctite 518 remains same as RTV 1080. (photo attached as Annexure may be referred.).
- 4.3 For immediate start of use of Loctite 518, initially, M/s Schneider will give 02 nos. of Loctite 518 bottles(250 ml/bottle) free of cost to each shed for sealing upper and lower insulator of their make VCB. One bottle of 250 ml is sufficient for sealing 12 nos. of VCBs.
- 4.4 M/s Schneider shall introduce Loctite 518 in place of RTV 1080 in the list of VCB consumables required during scheduled maintenance.

### **5.0 Application to the Class of Locomotives:**

25 KV AC conventional/3-Ph electric locomotives provided with Schneider(earlier Areva, Alstom) make single bottle VCBs.

### **6.0 Agency of Implementation:**

All Electric Loco Sheds and POH Workshops.

### **7.0 Periodicity of Implementation:**

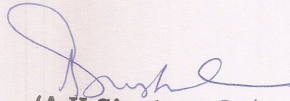
IOH and POH overhauling schedules/any other unscheduled maintenance requiring sealing of upper and lower insulator of Schneider make VCBs

### **8.0 Distribution:**

As per mailing list

DA: As above

Copy To:

  
(A.K.Singhal) 27/6  
for Director General (Elec.)

M/s Schneider Electric Infrastructure Ltd, Milestone 87, Vadodara, Halol Highway,  
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ANNEXURE

