Chief Electrical Engineers,  
All Indian Railways (Electrified)  

Sub: Reliability improvement measures in TRD - Failure of brazing joints.  

Recently few cases of contact wire parting took place due to opening of silver brazing joints in NR & NCR leading to traffic disruption. In case of NR's incidence, it revealed that a non-standard arrangement of providing 5/9 tonne adjuster in mid-section of contact wire was used near to the point of brazing joint failure causing development of kink in contact wire. This could be one of the possible causes of opening of brazing joints as only about 40% area of the contact wire was in contact with pantographs.  

You are, accordingly, advised to launch a drive to ensure that 5/9 tonne adjusters, if any, used in contact wire in mid-sections other than those locations specified in ACTM should be replaced with proper splicing arrangement and the kinks in contact wire should be set right. The report of such drive should be submitted to Railway Board by 14.08.12.  

Further checking of brazing joints using ultrasonic/Eddy current testing methods may also be deployed for the contact wire with sliver brazing joints in polluted zone to avoid such failures in future.

(S. K. Saxena)  
Executive Director (EEM)  
Railway Board  

Copy to- Sr.EDITI/RDSO  - He is requested to advise Zonal Railways the methodology for checking of sliver brazing joints using ultrasonic/Eddy current testing methods.