Minutes of the meeting held at RDSO on 09.08.2017 regarding failure of Traction Link in Electric Locomotives

Member Present:

RDSO(Smt/Shri)	Railway(S/Shri)	Firm(S/Shri)-	
O. P. Keasri EDSE (Co-ord)	Usman Athani AEE/TRS/BRC	Lakshman B Dir. KMRI	3ose
Pratibha Gupta JDSE/C&S	Naresh Barot SSE/ELS/BRC		
Santosh Kumar, SSE/Elect.	Gurudas Mondal SSE/CLW		

A meeting was held at RDSO on 09.08.2017 to discuss the failures of Traction link in Electric Locomotive. During the meeting following points were discussed:

- 1. WR have reported 10 cases of failure of traction rod due to crack noticed on flange joint detected in DPT.
- 2. Out of 10 nos. failed traction link of ELS/BRC, firm has already replaced 7 nos. and further agreed to replace 3 nos. more. Firm stated that defects in welding valley can be removed by minor grinding upto the depth of 1-1.5 mm max. Firm informed that it has already repaired one no. failed traction link of ELS/BRC by grinding and same has been provided in loco by ELS/BRC.
- 3. Firm informed that earlier they were not doing DPT and MPT on the traction rod. However now they have started doing DPT from 14/9/15 and MPT from 1/5/17 on flange portion after welding in addition to level-1 radiography test. Firm also stated that they have modified traction rod from SI. No. 1655-12/15 since sept'15.
- 4. It was decided that CLW should modify its drawing to introduce 100% DPT and MPT in the testing process so that any defect of welding valley can be removed before supplying.
- 5. It was decided that if crack is being detected in DPT/MPT within 6 months of commissioning and firm is of the view that it is a welding valley defect, firm person may be allowed to do grinding one time only upto 1-1.5 mm max. Performance of such traction rods should be closely watched by the sheds.
- 6. It is advised that CLW and RDSO shall jointly carry out technical audit of manufacturing and welding process being followed at M/s KMRI.
- 7. Performance of traction rod should be monitored regularly. All Zonal Railways should send the performance to RDSO in every 6 months.
- 8. Traction rod is an important safety item which carries TE/BE of locomotive. Present periodicity of replacement of traction rod is in POH. Based on failure reported from railways and load cycle calculations life of traction rod can be derived and its periodicity of replacement can be reviewed for its replacement to ensure reliability.
- 9. WR was advised to replace unmodified traction rod in three phase locomotives with modified traction rod in phased manner. However, it was informed by WR that all the WAP-7 locomotives are having modified traction rod.

(Pratibha Gupta)

For Director General/Electrical