

भारतीय रेल (रेल मंत्रालय)
डीजल रेल इंजन कारखाना
बारायती-२२५००४, वाराणसी
INDIAN RAILWAYS (MINISTRY OF RAILWAYS)
DIESEL LOCOMOTIVE WORKS
VARANASI 221004, INDIA



ISO 9001:2008
ISO 14001:2004
OHS 18001:2007

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DESIGN BULLETIN

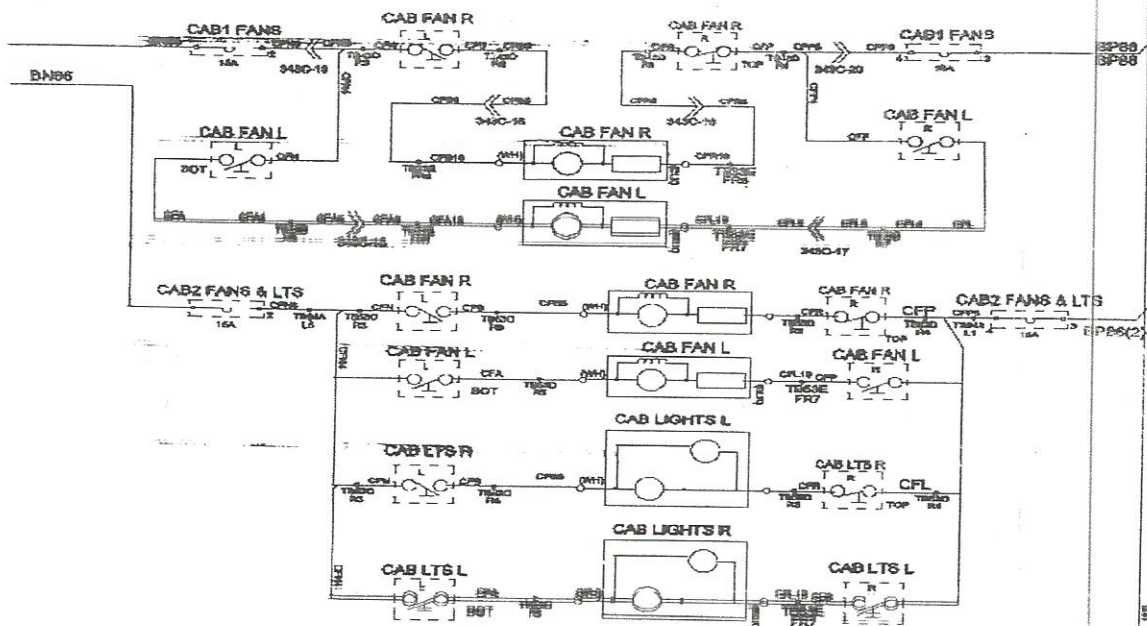
1. Design bulletin no. DB/03/2013/07
2. Subject Modification in electrical circuit to avoid discharge of battery in Dual cab HHP locos due to Cab light & cab fan operation in both cab during locomotive shut down condition.
3. Background In the existing electrical circuit; Loco Cab fan & Cab light can be operated in both cabs at same time which causes deep discharging of battery in locomotive shut down condition, which cause problem in starting the locomotive.
4. Objective To avoid discharging of battery due to running of Cab Fan & Cab Light in both cab during locomotive shut down condition by making the interlocking through BL key.
5. Details of study/ Investigation CMPE/NWR vide their letter no M/233/301/medha dtd 19.09.13 has reported the problem of starting of locomotive in M/S Medha AC-AC traction equipped Dual cab HHP locomotives in BGKT/Shed. When the battery voltage of locomotive below 62 Volts and the start switch is moved from Prime to start position then display disappears for some time. Meanwhile if loco pilot release the start switch from loco start position then loco will not start.
On investigation, it has been found that, there is no any interlocking of (cab fan & light) for both cab and at the same time both cab fan and light may be switched ON, which causes deep discharging of battery in locomotive shut down condition. There is also possibility that the operating staff left the locomotive with running cab fans & lights in both cabs, which causes deep discharge of battery in shut down loco condition and loco starting problem occurs.

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6. Corrective action To avoid above discharging problem, (cab fan & cab light), circuit has been modified to interlock through BL key. In cab#1, cab fan can be operated when cab#1 made active through BL key. In cab#2, (cab fan & cab light) cab be operated when cab#2 made active through BL key. The Cab Light/Cab Fan circuit modification has been done in WDP4D-40168 at DLW. Modified circuit is enclosed as Annexure-A.
 8. Drg/Spec/Test plan/QP modified As per modified circuit.
 9. Implementation To be Implemented with Immediate effect in WDG4D/WDP4D Dual cab HHP locomotives
 10. Circulation M/s Medha Servo Drives Pvt. Ltd. Hyderabad, M/s Siemens India New Delhi, Dy.CME/Loco, Dy. CQAM, Zonal railways, Dir/MP/RDSO


03/10/13
Dy. Chief Design Engineer/TC

Existing Circuit



Modified Circuit

