

East Central Railway

Office of the  
GM (S&T)/HJP

No: ECR/S&T/Sig/Policy/200/Pt.-III/125

Date : 29.04.2015

CSTEs/DHN, DNR, MGS, SEE, SPJ  
CSTEs/W/DHN, DNR, MGS  
CSTE/Project/HJP  
CSTE/C & C-1/ DNR  
CSTE/ C & C-1/SPJ

**Sub :** Policy for Signalling arrangement to be provided at any new PI/RR/IE installation.

**Ref:** This office letter of even no. Dtd: 24.07.2014.

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The Policy for Signalling arrangement to be provided at any new PI/RR/IE installation issued vide letter under reference is reiterated again, which is enclosed with.

For all future work, this policy must be followed invariably and taken into account for preparation of detailed estimate of all new works.

For existing work, this policy may be included taking into consideration that variation in estimate not involved that may lead to delay in commissioning.

as above.

*Ram Bechan*  
21/4/15  
(Ram Bechan)  
CSTE/Planning  
for GM (S&T)/ECR/HJP

- (i) CSTE/Con/South & North/MHX,
- (ii) CSE/North, CSE/South, CSTE/Works,
- (iii) All S&T Officers of HQ/HJP

मुसिदुई कार्यालय  
हस्ताक्षर  
प्रेषण सं. 125  
दिनांक 29.4.15 समय 15.10

Signalling arrangement to be provided at any new PI/RRI/EI installation

(1) All stations should be provided with Central Panel, MACLS with Metal to Metal or Metal to Carbon type of Relays or EI as per the latest policy issued by the Rly Board from time to time.  
Block working should be provided on UFSBI with media diversity.

Dataloggers should be provided at all stations with networking with division on EI system.  
for LC Gates and IBH should also be provided. Validation certificate of Data Logger by OEM must be submitted at the time of commissioning.

Cabling should be done with spare cable upto Emergency Crossovers in multiple line section, provision of sufficient no. of spare conductors and segregation of cables for different functions as per IRSEM para No. 15.3.

To strengthen the signalling and power cable laying, it should be done through use of Polyolefin Cable Channel/DWC 'Ducts' and also ring type of arrangement should be made for improved reliability of power supply. Cable protection arrangement for uncovered stretches (e.g on bridges, culverts, drains, cable rise outside building) should be done through GI pipes or GI troughs (filled with bitumen).

UPS should be installed at all stations and IBS, if any, and Inverter/IPS (Low Capacity) should be installed at all interlocked LC gates.

Sliding boom barriers should be installed at all LC Gates within station limit and also Electrical Lifting Barrier should be provided at all 'A' and 'SPL' Class LC Gates.

Dual detection by means of DAC for track circuits having poor ballast condition, perennial water logging and continuous loading/unloading should be provided.

Every one point should ideally be controlled by a single track circuit, however, in no case, more than two points should be controlled by a single track circuit. Further, four terminals TLJB/Pt. JB in areas with adverse local conditions should be installed.

Conditioning of Relay Rooms should be done. Heat retarding paints should be provided in Location Boxes and Portable Cabins.

Shunt signals at all places should be 3 Meter behind the G/J with 5 sec delay timer in their circuits. Provision of zero time delay for calling-on below dispatch signal and 60 sec calling-on below reception signal should also be provided. Shunt signals should also be provided at places as per operational requirement.

Leakage Detectors shall be installed at all stations. Maintenance free earthing should be provided for IPS, Axle counters, Data Logger, SSI etc. LPD/SPDs for outdoor circuits as per DSO scheme should also be provided.

Unshielded LED Signals with isolation transformers should be installed.

Alarm System: Dual fuse panels with alarm should be installed at all stations.  
The alarm system for Track feed battery charger using potential free contacts should be installed.

Changeover by fuse for outdoor circuits (PPTC)/Changeover should be provided.

*[Signature]*  
29/04/15  
By CSTE/300-II

- (xvii) (a) In RE areas, on single line section where power supply is drawn from single AT, one DG set of 15 KVA capacity should be provided.
  - (b) In big yard, DG sets of adequate capacity should be installed in addition to supply from ATs and local source.
  - (c) 2 Nos. DG sets of 15 KVA should be provided in Non RE area .
  - (d) DG sets where installed, should be provided with push button start/stop facility from Panel Room/LC gate as the case may be.
- (viii) Double jumpers should be provided in all track circuits.

*[Signature]*  
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