

CHAPTER IV

COMMUNICATION REQUIREMENTS FOR NEW STATIONS/SECTIONS

- 4.1 Opening of new stations whether in an already existing line or as part of a new section shall be governed by "Rules for opening of a Railway".
- 4.2 Communication systems for new sections shall be planned on underground OFC & Quad cable and/or on modern cellular communication duly suited for Train Traffic Control such as GSM-R/LTE. Suitable system to meet the future communication requirement of the section shall be planned. Adequate capacity shall be built in to meet the safety requirements of block working, TAWD, BPAC, TCAS, emergency requirements for accident communication etc and Data communication requirements of UTS,PRS,FOIS,COIS, Datalogger, SCADA, Control, VSS, WiFi etc.
- 4.3 Communication arrangements at a new station shall be governed by:
 - a) Controlled / Uncontrolled section.
 - b) Electrified/Non-electrified section.
 - c) Importance in terms of the various departmental staff to be posted at the station.
 - d) classification of station on commercial ground as per latest guidelines
- 4.4 The following communication arrangements shall be provided at new stations:
 - a) Control telephone (2-wire/4-wire/VoIP based) in controlled sections.
 - b) Phone communication to all manned level crossing gates controlled from the station preferably with voice logging facility.
 - c) 25W VHF sets with proper standby power supply.
 - d) Communication arrangements with sidings. Mode of communication shall be decided by the Railway administration, depending on the importance of the siding.
 - e) BSNL phone wherever feasible with Caller ID. In the absence of feasibility for land line BSNL phone, FCT of CUG or any other service provider shall be provided.
 - f) At important stations, telephone exchanges shall be provided where there is a sizable establishment for railway working. Wherever feasible, such exchanges shall be connected by suitable means to the divisional exchange with path redundancy as in ring/mesh/star network.
 - g) At all new stations, communication arrangements may be provided to Officer/SSE/JE/Technician and ASM office through CUG/Railway auto phone/control phone if required.
 - h) In a new section, communication arrangements for block working to suit the system of working to be followed shall be provided.
 - i) In electrified territory, TPC phones shall be provided.
 - j) Provision for telecom circuits/network for Railnet with IP DSLAM & LAN extender/FOIS/UTS & PRS facilities.
- 4.5 Additional communication facilities to be provided in new electrified sections, shall be governed by the provisions in Chapter - IV of the 25KV AC traction manual.

- 4.6 All the communication equipment shall be provided with suitable power supply, power backup and proper protective arrangements.
- 4.7 All the communication equipment and power supply units shall be properly earthed and suitable lightning and surge protection arrangements shall be provided.
- 4.8 Besides telecommunication facilities, one or more of the following facilities are to be provided depending on the requirement of the station as per the latest Railway Board's guidelines.
- a) GPS /Precision Platform clocks.
 - b) PA systems for announcements on the platforms.
 - c) IPIS/Train/Coach Indication Boards
 - d) VSS/CCTV and WiFi
 - d) Other facilities as required by division
- 4.9 Telecom power supply should be monitored through data-logger/NMS (Network Monitoring System). It is desirable to get it monitored by generating SMS alerts from suitable gateway to the concerned section in-charges.
- 4.10 S&T DG supply should be extended to OFC/Telecom Room. In electrified sections, in addition to normal supply, AT supply, both UP and DOWN, to be extended to telecom equipment also, through seperate fuse/MCB of suitable capacity (minimum 10 Amp).
- 4.11 All telecom equipment should preferably work on -48 V DC supply to avoid multiplicity of power supplies. Otherwise, wherever feasible, seperate IPS type of power supply arrangement to be provided for all the telecom equipment together.
- 4.12 Cables used for Telecom Equipment should be properly dressed up and covered in station areas and buildings to maintain the reliability and aesthetic.