



दक्षिण रेलवे / SOUTHERN RAILWAY

SIGNAL & TELECOMMUNICATION DEPARTMENT



INTRODUCTION

Signal and Telecommunication Department is responsible for installation and maintenance of Signaling system essential for the safe & speedy movement of trains and Telecommunication systems is required for the effective utilization of the large fleet of locomotives and other rolling stock and track as well as for the administration of the vast Railway Network. Telecommunication is a vital infrastructure for managing any transportation network. Indian Railway has an in-house Railway Telecommunication Network for managing Train operations and staff management and to offer Passenger Amenities. In terms of the sophistication in Signaling and Telecommunication installations, Southern Railway occupies the pride of place among the various Indian Railway systems.

S&T Department consists of both administrative and project offices with a workshop at Podanur. Organizational setup and duties of officers and other salient features of the department are detailed below.

A. SALIENT FEATURES

1.0 SIGNALLING

1.1 Multiple Aspect Color Light Signaling (MACLS)

Mechanical signals of Semaphore type are progressively replaced by Electrical signaling with Multiple Aspect Color Light Signals (MACLS). MACLS signals have better visibility, quick operation and less maintenance.

1.2.1 Panel Interlocking System

Unlike Route relay interlocking, in panel interlocking points and signals are operated individually. This is being adopted in smaller wayside stations.

1.2.2 Route relay interlocking (RRI) and central control panels in signal control system

By mere operations of knobs and route buttons, routes are set automatically and signals are cleared with absolute safety. The entire station is track circuited. Points and signals are operated by individual knobs/slides in small yards.

1.2.3 Electronic Interlocking

As a technological development, solid state with electronics system having software programming, electronic interlocking signaling control system is being now inducted to achieve economy, enhanced safety and flexibility. This sophisticated microprocessor based interlocking system works through Microprocessor devices and software programming. In this system there is a smaller number of relays, and alterations/additions in the yard is possible without much extra wiring. This system adopts the usage of latest CENELEC standard of software validation.

1.3 Automatic Block Signaling with Continuous Track Circuiting

Automatic Block signaling systems are mostly used when the train traffic become more congested and busier, especially in suburban area and to increase line capacity. This eliminates block working and trains are signaled automatically without much dependence on human element. This ensures train safety and speed.

1.4 Token less Block working

In the absolute block system in single line, Token Block instruments are used. The token will be handed over to the driver of train after granting line clear to enter in to the Block section. The process of handing over of token at every station is time consuming, laborious and may result in token missing. The system of token less block working helps to increase line capacity on single line sections.

1.5 Audio Frequency Track Circuits (AFTC)

Southern Railway has the distinction of introducing Audio Frequency Track Circuit for the first time in the Indian Railway system in 1994-95.

As, the conventional DC track circuits are found vulnerable to the interference of currents generated by the thyristor/Chopper controlled locomotives, joint less Audio Frequency track circuits have been found to be the solution in such sections. The AFTC does not require insulated joints and can work for longer lengths and is suitable for AC and DC electrified areas. These track circuits are more

reliable because failures due to block joint shorting are avoided, due to non-availability of joint and the train running is very smooth. The dependency on other departments like Engineering or OHE is reduced since Glued Joints/Block Joints and OHE bonds in Glued Joints are not required.

1.6 LED signals for Color Light Signaling (LED)

In color light signals and in mechanical signals the signal aspects are lit by incandescent bulbs. These bulbs have limited hours of working and get fused due to ageing and voltage fluctuations. The bulbs have to be replaced frequently. The visibility of these bulbs is limited and focusing of the signals are required to be adjusted frequently. As an improvement, LED signals are now introduced. LED signals are having longer life and better visibility. This type of signal has enhanced the reliability by reducing the incidences of signal lamp fusing. It also affords good visibility to the drivers.

1.7 Replacement of over aged assets

Over aged signaling assets are normally to be replaced after a codal life of 25 years. Most of the signal systems are obsolete mechanical type and no spares are now available in the trade. With the sanction of the Special Railway Safety Fund the over aged assets are being replaced on priority basis.

1.8 Track circuiting

Track circuit detects the presence or absence of the train on the track. This is the backbone of the signaling system. This ensures complete safety to the train in case of human failure. Due to high utilization of the track capacity, this ensures safe, speedy and punctual movement for train services.

1.9 Block Proving Axle Counter (BPAC)

In the conventional double line Block instrument (DLBI) all the operations are done by the receiving SM and this could result in detention to trains at the sending end in case of non-availability/pre-occupation of the receiving SM. Moreover, complete arrival of the train by checking up the Last Vehicle (LV) is done manually by the receiving SM and in case of any failure to adhere to this procedure strictly, there is a possibility of Block being closed even if parting had occurred in the mid-section and the train had arrived incomplete. Axle Counter was thought of for use in Block working to overcome the twin problems of (1) dependence of human agency to verify the complete arrival of the train and (2) delays associated with the granting of Line Clear in conventional Block instrument working. Now HASSDAC (High Availability Digital Axle Counters)/MSDAC (Multi section Digital Axle Counters) are used in BPAC with increased safety and redundancy in the working system thereby increasing the Availability of the system.

1.10 Level crossing

The unmanned gates are taken up for manning where telephone facilities are provided from the nearest station so that gate will be closed well in advance before the train approaches the manned gates. LC gates are being taken up for interlocking on the basis of train vehicle units (TVUs) to ensure safety for both trains and road users.

1.11 Train protection & Warning system

This system will give information to the driver to regulate the train speed depending upon the aspect of the signal in advance. In case, the driver fails to do so, the train will be automatically stopped by applying brake without the intervention of the driver. This ensures that whenever any train stops on the track, the following trains stop automatically, thus ensuring safety.

1.12 Train Actuated Warning Device

Whenever train approaches an unmanned level crossing, a hooter sounds giving warning to the road users well in advance about the approach of the train there by avoiding any accident.

1.13 Networking of Data Loggers

This is a modern equipment used for monitoring the operation of important functions like Track circuits, Points, Signals, Battery chargers, Batteries etc. installed in Panel interlocked/RR1 installations. These are microprocessor -based equipment logging the events of the change of status of the various functions in field and relay rooms and recording the precise time also. The data loggers are useful devices for detecting the cases of passing the signal at danger by the driver and give important clues in case of accidents. The data loggers are also used as predictive maintenance tools regarding deterioration of the performance of signaling gadgets.

1.14 Integrated Power Supply System (IPS)

With the introduction of more and more modern Electrical Signaling Systems, the dependency on the power supply becomes more essential. To get reliable power supply, the concept of Integrated Power Supply (IPS) has been introduced wherein, the different signal power supplies like 110 VAC, 110 VDC, 24VDC etc. are derived from the common system, which works on common battery, i.e. DC-DC converter, modular power packs. This IPS will enhance the working of the signaling system both in stations, IBS and mid-section LC gates.

1.15 Train Collision Avoidance System (KAVACH)

Train Collision Avoidance System is an indigenously developed system. Automatic Train Protection (ATP) System meant to provide protection to trains against Signal Passing at Danger (SPAD), excessive speed and collisions. KAVACH provides continuous update of Movement Authority (distance up to which the train is permitted to travel without danger). Hence during unsafe situations when brake application is necessitated, and the Crew has either failed to do so, or is not in position to do so, automatic brake application shall take place. KAVACH has additional features to display information like speed, location, distance to signal ahead, Signal aspects etc. in Loco Pilot's cab and generation of Auto and Manual SOS messages (Distress messages) from Loco as well as Station unit in case of emergency situation. The communication between Stationary KAVACH and Loco KAVACH units shall be Safety Integrity Level-4 (SIL-4) certified, while Loco KAVACH to Loco KAVACH communication, non-Signaling based additional collision protection features (i.e.Head-on, Rear end & Side Collision) and Manual SoS are non-SIL (not failsafe). A total of 1977 Rkms work sanctioned and further 2764 Rkms work proposed under plan head 33.

2.0 TELECOMMUNICATION

2.1. Train Control Communication

Movement of each and every train is monitored by a controller at the nearest divisional Hqrs. Facility is also provided to the driver or guard to communicate with divisional Hqrs. through portable telephone which can be easily connected to the overhead line wires which are running parallel to the track or connected to the Emergency Telephone sockets provided at every Km in the section where controls are working through underground cables. An emergency portable telephone is kept in the Guard's compartment of each and every train.

2.2. Block Circuits

Running of trains in each section (between any two stations) is controlled by block circuits through which running of only one train in a section at one time is Electrically ensured in addition to oral confirmation. Overhead lines of Railway or BSNL and underground cables are used for this purpose.

2.3 Optical Fibre Cable network

Optical Fibre Cable is laid along the track to provide a reliable and noise free communication. OFC network is widely used for Railway Control Communication taking advantage of its all-long haul high bandwidth circuit interconnecting Railway Telephone Exchange. Passenger Reservation System, Unreserved Ticketing System, Network Freight Operating Management system have been transferred through Railway OFC.

In Southern Railway distribution of various media for Telecommunication is as follows:

- 1.OFC and RE quad cable in Electrified sections
- 2.OFC and 4/6 quad cable
- 3.Only OFC.
- 4.Railway owned overhead line.
- 5.Rented overhead line/ channels/ bandwidth from BSNL

2.4 Railway Telephone Network

There is an in-house Railway Telephone Network connecting all-important offices, officials, Way stations, Divisional Headquarters & Zonal Head Quarters. Railway telephones exchanges are inter-connected through Railway OFC network, Railway Microwave network and are supported by rented BSNL channels as standby.

2.5 Railway Microwave Communication Network

In Southern Railway telecom network is supported by Railway Owned MW network using state of the art technology (Digital Microwave System). MW network is spread over Chennai- Jolarpettai, Erode –Palghat, Chennai - Tiruchchirappalli, Madurai - Palghat covering all divisional headquarters, mostly along the tracks.

2.6 Wireless communication System

Driver, Guard, Supervisors & officers of permanent way, Mechanical, Electrical and Signal & Telecom departments are provided with 5 watts hand held walkie-talkies, which can be used to establish communication between moving train & adjacent stations. Every railway station is provided with 25 watts VHF set for this purpose.

2.7 Data network

There is an exclusive PRS network connecting Chennai and all the PRS centers of Southern Railway and other Metros. The centers are connected either through Railway OFC network or hired channels from BSNL. Similarly, there is a Freight Operating Management System network for monitoring the movement of freight transport. Coach Operation Information System is a network for coach management and this is under implementation.

2.8 Passenger Amenities

Safety, security and comfortable journey of the passengers are the aims of Railways in train operation. To meet this objective, the following facilities have been provided in almost all-important stations.

- Continuous announcement through public address system
- Electronic display board
- IVRS system for giving on line information about availability of Accommodation, arrival & departure of trains.
- Call centers and integrated IVRS for giving all types of passenger information.

2.9 Voice Recorder

Train operation information between controllers at Divisional headquarters and waystations are normally passed through control circuits. All such conversations between section controller and station Master are recorded at control office, which can be used for train management at any time of investigation in case of any accident/mishap.

2.10 Railnet

Railway has its own data network for management purpose called "RAILNET". This network spreads through entire Railway system connecting divisional headquarters, Zonal headquarters, workshops and hospitals.

2.11 Disaster Management

Telecom plays a vital role in Disaster Management. To meet the requirement of Disaster Management, a universal number is provided at all control offices which can be accessed from any part of India duly pre fixing the city code. There are Accident Relief Trains and Medical Relief Vans placed at strategic locations. All such ARTs and MRVs are equipped with mobile INMARSAT telephones, walkie-talk i.e. sets and public address system. Video conferencing equipment and wireless satellite-based modems are also being added.

2.12 Video conferencing

Video conferencing facilities are available in divisional headquarters, zonal headquarters and Railway board, for administrative purpose.

2.13 Tele Medicine

A wide band connection has been established between Railway Hospital/Perambur, Railway Hospital/Golden Rock and with major Railway hospitals in other Zonal Railways. This enables exchange of expertise opinion between hospitals.

2.14 Maintenance

Maintenance of all equipment is carried out through the maintenance set up of staff at Divisions, Way stations and in specialized laboratories. However, since the telecom technology is

changing fast, Annual Maintenance Contract through reputed firms wherever necessary is being opted. Maintenance is carried out as per the schedule drawn up in Telecom Manual.

2.15 BSNL Telephone

BSNL telephones have been provided at all Railway stations for giving train information to the public.

3.0 SIGNAL&TELECOM WORKSHOP/PODANUR

3.1 IMS Certified Unit

S&T Workshop, Podanur was recently awarded five certifications under the Integrated Management Systems (IMS). The five certifications are Quality Management System (ISO 9001:2015), Environment Management System (ISO 14001:2015), Occupational Health and Safety Management System (ISO 45001:2018), Energy Management System (ISO 50001:2018) and Food Safety Management System (ISO 22000:2018).

3.2 Achievements

Out turn for the year 2021-22 is Rs.90.06 crores, which is 11% higher in comparison to previous year out-turn of Rs.81.65 Crores. Workshop/PTJ has achieved highest ever out-turn of Rs.115.45 crores in the year 2019-20.

3.3 Production Profile

Important products manufactured in this workshop are Q-series Relays, IRS Point Machines, TLB Instruments, Double line Block Instruments, Polarized Relays, Control Panels, TLB with UFSBI, Emergency Control Panel, GRS apparatus case for RTU, Electrical Lifting Barrier gate, Emergency Sliding boom and SMS alerting system.

3.4 Developmental Activities

This workshop has developed High Thrust Point Machine 220 mm Stroke with clamp type locking and Special type Relays QTA2 and QT2 and Ground connection with Galvanization for 143mm for the use in coastal areas, introduced zinc-cobalt plating instead of cadmium plating for Q relay products.

3.5 Computerization and Networking

The following activities of Production Control Organization have been computerized.

- Work Order releasing
- Production control Documents.
- Estimated Annual Requirements for Stock Items.
- Bill of Materials for all manufacturing items.
- Rate Revision of manufacturing items.
- Inspection details – inspection of inward items.
- Vendor evaluation
- Demand and Dispatch position details.

3.6 Improvements towards safety of employees and Environment management:

- Wet Scrubber 2 units (capacity of each 16000 CMH) is installed at PC shop to extract & filter the fumes emitted during Electro-plating of Q-Relay components.
- Dust collector is installed in PC shop to collect the fine dust particles released during buffing of Q relay components.
- Two no's of Welding fumes extractor and 06 no's of Soldering fumes extractor installed at RS covering 12 soldering stations for preventing air pollution.
- 30 KW solar plant is installed above the CWM office and 60KW solar plant is installed on Relay Shop (Inaugurated by GM/SR on 18-08-2022). As on 31-10-2022 total 1,01,332 KWH units are generated by these solar plants.
- 105 Nos. of Turbo Roof Ventilators fixed on the roof top of the major sections which is a significant achievement in providing natural ventilation without any power consumption.
- 15 Nos of solar day tube light is fixed in major sections roof (FAB and Machine shop) to utilize the natural light in day time.

3.7 Awards/Credentials:

- In appreciation in maintaining the office in clean and neat manner, The **CWM/S&T/PTJ office** is awarded with **Best kept extra-divisional office (MINOR)** in 67th Railway week awards.
- As SSD/PTJ has performed well in maintaining the inventory of stores and also achieved the target of sales (scrap auction), the **Signal Stores Depot/Podanur** is awarded with **Best Stores Depot** in 67th Railway week awards.
- In appreciation in implementation of RajBhasha in the workshop and offices in day-to-day correspondences, The **S&T/WS/PTJ** is awarded with **Inter-workshop Rajbhasha Rolling Shield** in 67th Railway week awards.

4.0 S&T TRAINING CENTRE/ PODANUR

4.1 Courses Conducted

Mandatory courses like initial courses for apprentices, refresher courses for working employees, foundation courses for newly promoted employees, induction course and development course for Group D staff and various equipment courses in Signal and Telecommunication and Yoga classes are regularly conducted for the employees of Southern and South Western Railways. Pre-promotional course for supervisors for selection to Group-B and artisans for JE selections and computer appreciation for supervisors, office clerks and artisan staff of S&T department are also conducted.

4.2 Laboratories

The Outdoor Demonstration model yard is equipped with point machine, Power signaling models and Digital Axle Counters. An Electric Lifting barrier is also provided here. The Training center is equipped with Indoor Laboratories for Block Signaling, Power Signaling, Route Relay Interlocking, UFSBI, SSBPAC, HASSDAC & MSDAC, Electronic Interlocking, Train Traffic Control, Transmission Equipment, Data Communication, Electronic Exchange and Computer.

4.3 E-learning Facility

Provision of E-learning facilities with necessary infrastructure like LAN, Video conferencing, available at training center which connected to IRISSET.

4.4 Hostel

The hostel can accommodate 100 trainees and is provided with a vegetarian mess. Gymnasium, facilities for Indoor Games and Outdoor games, TV with cable connection are provided for recreation to trainees.

B. POWERS, DUTIES OF OFFICERS AND EMPLOYEES

The powers of the officers are specified in “Schedule of Powers”. The duties of the officers and employees are to work for achieving the objectives of efficient and safe signaling system for the SR and an efficient and modern telecommunication network promote smooth and efficient working of the entire SR.

C. DUTIES AND RESPONSIBILITIES OF OFFICERS

Sl.No.	Designation	Functions and duties
1	PCSTE	Overall in charge of signal and telecom functions of the zonal Railway.
2	CCE	In charge of telecommunication matters relating to OFC, VHF, UHF, FOIS, MW, MIS, co-ordination with BSNL officials with respect to line wire/cable circuits, BSNL telephones, execution and progress of OFC works.
3	CSE	In charge of maintenance of signaling installations, punctuality of coaching trains, approving signaling plans & drawings, establishment matters including selection, recruitment and training.
4	CSTE/Plg	In charge of all planning activities of S&T, budgeting, maintenance of statistics on S&T, replying to parliamentary queries, manpower planning & Officer for Public information (PIO).
5	CWM	In charge of S&T Workshop at Podanur, in matters relating to planning and production of specialized items required for Signaling and Telecommunication, applications in Indian Railways. Matters relating to S&T Workshop/Podanur, Training center/Podanur and Railway High School/Podanur.
6	CSTE/Project	In charge of works in the Chennai & Tiruchirappalli Divisional jurisdictions, Budget, sanction of estimates, approval of plans & circuits, processing for CRS sanction and handing over of assets to open line.
7	CSTE/Projects& Planning	In charge of works in the Trivandrum, Palghat Divisional jurisdictions, sanction of estimates, approval of plans & circuits, processing for CRS sanction and handing over of assets to open line.

JA Grade, Senior Scale & Assistant Scale officers assist the above PHOD/HODs.

D. The powers for discipline & appeal matters

are as mentioned under DAR Rules, 1990.

E. The procedure followed in the decision-making process, including channels of supervision

For different categories of the nature of work. The process is enumerated as under:

(1) Procurement of office furniture:

Requirement is put up by ASTE(Tele) to PCSTE. After obtaining finance concurrence (if required) from FA & CAO and administrative approval from Competent authority the indent is sent to Stores department for further procurement action.

(2) Budgeting:

The system of periodic review of budget are followed vide Railway Board's instructions. The Budget estimate and revised estimate received from field units are compiled by CSTE/Plg and after approval of PCSTE is communicated to FA & CAO for onward transmission to Railway Board.

(3) M&P:

The M&P proposals for S&T are (usually) originated by end users in the field units. M&P proposals duly vetted by divisional accounts and approved by DRM and proposals of CWM/S&T duly vetted by Associate Finance are received from field units and Workshops/ Podanur in two categories:

- Within GM's power (Costing between Rs.20 Lakh and Rs. 50 Lakhs/other than vehicles) as per GM's Delegation of Powers vide Para 39 (a) of Annexure -1 (<http://10.185.71.55/sop2017/annexure-1.pdf>).
- at Railway Board's level (Costing above Rs. 50 Lakhs/ vehicles)

After examination in the Head Office by the S&T department, these proposals are sent to CME (Planning). The proposals of all the departments received by CME(Planning) of the Railway is consolidated as the Preliminary M&P Programme and with finance concurrence processed for Competent Authority's sanction.

M&P proposals under GM's power (Costing between Rs.20 Lakh and Rs. 50 Lakhs/other than vehicles):

The proposals received from units are scrutinized by CSTE/Planning and after obtaining approval of PCSTE/SR, the proposals are sent to CME/Planning/SR the coordinating officer for M&P. CME/Planning/SR sends the proposals to FA&CAO/S&W/PER for obtaining concurrence. After FA&CAO/S&W/PER's concurrence, proposals are put up to GM/SR by PCME/SR for obtaining approval. Considering the lump-sum budget grant, GM approves the proposals. The sanctioned M&Ps are then sent to field units for further processing and procurement. The sanctioned M&P items normally be procured through COFMOW (Central Organization for Modernization of Workshop) or COFMOW dispensation has to be obtained for procurement through PCMM/SR.

M & P proposals at Railway Board's level (Costing above Rs.50 Lakhs/ vehicles):

The proposals received from units are scrutinized by CSTE/PLG and after obtaining approval of PCSTE/SR the proposals are sent to CME/Planning/SR, the coordinating officer for M&P. CME/Planning/SR sends the proposals to FA&CAO/S&W/PER for obtaining concurrence. After FA&CAO/S&W/PER's concurrence, proposals are put up to GM/SR by PCME/SR for obtaining approval. After GM's approval, proposals are

sent to Railway Board by PCME/SR. The Railway Board sanctions the M&Ps submitted by the zonal Railway. A list of sanctioned M&Ps is then sent to COFMOW for obtaining dispensation. If COFMOW's dispensation is obtained for certain M&P it can be procured through PCMM/SR. Otherwise field unit sends the detailed estimate to COFMOW for procurement.

(4) Works Programme (WP)

The WP proposals for S&T are (usually) originated by end users in the field units. WP proposals duly vetted by divisional account and approved by DRM are received from field units in two categories i.e. under GM's power (Costing below Rs.2.50 Crore each) and at Railway Board's level (Costing above Rs. 2.50 crore each).

Works proposals under GM power (Costing below Rs. 2.50 crore each):

The proposals received from units are scrutinized by CSTE/Plg/SR and after obtaining approval of PCSTE/SR, the proposals sent to CPDE/SR, the coordinating officer. CPDE/SR sends the proposals to FA&CAO/SR for obtaining concurrence. After FA&CAO's concurrence proposals are put up to GM/SR by CPDE/SR for obtaining approval and considering the lump sum budget grant, GM approves the proposals. After the approval of GM, the work features in LAW (List of approved Works) Book.

Works proposals at Railway Board's level (Costing above Rs.2.50 crore each):

From year 2018-19, the concept of Umbrella works has been introduced. The very purpose of umbrella work, in addition to have flexibility to sanction works throughout the year, is to channelize railway investments in identified focus areas.

The proposals received from units are scrutinized by CSTE/Plg/SR. With the approval of PCSTE/SR, such proposals received from units are grouped into Umbrella Works and a Nodal Division is fixed to propose the Umbrella Works.

The Umbrella proposals received from Nodal Divisions, after obtaining approval of PCSTE/SR, are sent to CPDE/SR. No finance concurrence is required at this stage. CPDE/SR obtains the approval of GM for inclusion in PWP (Preliminary Works Programme) and sends the proposals to Railway Board for sanction.

The procedure to process Works Programme in Board's office is as under:

- a) The new works shall be sanctioned only as umbrella work.
- b) The name and cost of each umbrella work shall be proposed by nodal directorate for finalization of the same jointly by Executive Directors of nodal directorate in consultation with associate directorates and associate finance directorate. While arriving at the name and cost of proposed umbrella works, individual works proposed by railway shall also be considered by nodal directorate.

Railway Board then publishes Pink Book for sanctioned works costing above 2.5Crores each.

Under Plan Head 16, 17, 18, 29, 30, 32, 33, 36, 42, 51, 53, 64 & 65; individual sub-works in any umbrella work are to be processed for sanction either in the same financial year or in subsequent financial years also, till the cost limit of umbrella work is exhausted for approval of individual works.

The individual sub-works costing less than Rs.2.50 crore each with finance vetting are sanctioned by GM. Railway Board's approval is to be obtained for Works costing between Rs.2.50 Crore and Rs.50.00 Crore and sanctioned by GM. The individual sub- works costing above Rs.50.00 Crore are to be sanctioned by Railway Board.

When approval of individual sub-works under Phase I (i.e. 80% of the Total sanctioned cost) of an umbrella work is near completion, then only Phase II of the same name umbrella work is to be planned for sanction, if needed.

On sanction of an individual work, detailed estimate is prepared by field unit and got vetted and sanctioned by competent authority. Mode of executing the work is decided as per SOP (Works).

(5) Condemnation of overaged and damaged assets:

On certification as being beyond economical repairs, process for condemnation of the assets shall be proposed. The proposal is adjudged by concerned functional HOD and a survey committee will be set up after finance concurrence and approval of PCSTE. On the basis of the survey committee report, the condemnation of the asset is certified.

(6) Monitoring of failures:

Reconciled data of failure received from units is compiled subject wise by concerned supervisors and then put up to PCSTE in prescribed format by functional HOD for the perusal and further action required.

(7) Procurement of spares:

Stock and non-stock requisitions duly vetted and after provision of fund certification are scrutinized by ESTE (Stores) and put up to CSE/CCE/PCSTE for counter signature as per SOPGEN and forwarded to Stores department for further necessary action.

F. The norms set for the discharge of functions

The following norms laid down for the discharge of functions mentioned below

S.No.	Item	Laid down Norms
1	Sending MCDO to GM	By 8 th of every month
2	Sending MCDO to Rly Board	By 5 th of every month
3	Revenue Budget	
4		
(i)	August Review	Target as given by Rly Board
(ii)	Revised Estimate	Target as given by Rly Board
(iii)	Final Modification	Target as given by Rly Board
5	Passing of Bills	Within 7 days
6	Reply to general references	Within 30 days
7	Reply to Rly Board's references	Within 7 days
8	Reply to VIP references	Within 10 days

9	Signal & Telecommunication Gears Performance Review	Within 7 days
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G. The rules, regulations, instructions, manuals and records, held or under control of PCSTE 's office or used by its employees for discharging its functions.

Rules/Manuals held by S&T Branch

- General Rules 1976
- Signal Engineering Manual
- Block Working Manual
- Telecommunication Manual
- RE manual
- Finance code
- Stores code
- Establishment Manual
- Discipline & Appeal Rules etc.,
- (Track manual) way and works manual
- AC Traction manual

H. Statement of the categories of documents that are held by it or under its control

- Details of Staff
- Details of drawings for various stations
- Details of stock of materials including dead stock
- Details of works proposed, sanctioned and in progress including the targets fixed
- Details of signaling inspections done by Officers.
- Details of stations with type of interlocking provided
- Details of level crossing gates
- Details of S&T Training Centre with Training Modules.

I. The particulars of any arrangement that exists for consultation with or representation by the members of the public in relation to the formulation of policy or implementation thereof.

Primarily, no public dealing is entertained by S & T department. However, the inputs required from S&T department for ZRUCC/DR UCC etc. shall be furnished at appropriate level, through proper channel.

Matters pertain to MP/MLA and other VIP references will be replied through appropriate channel.

J. Statement of the boards, councils, committees and other bodies consisting of two or more persons constituted as part of PCSTE 's office or for the purpose of its advice, and as to whether meetings of those boards, councils, committees and other bodies are open to the public, or the minutes of such meetings are accessible for public

Not applicable

K. The monthly remuneration received by each of the offices and employees, including the system of compensation as provided in its regulations.

The information is available with CPO/SR

L. The manner of execution of subsidy programmes, including the amounts allocated and the details of beneficiaries of such programmes.

Not applicable.

M. Particulars of recipients of concessions, permits or authorization granted by PCSTE's office

Not applicable.

N. Details in respect of the information, available to or held by PCSTE's office, reduced in electronic form

Following Documents are available in electronic form:

1. General and Subsidiary Rules of SR.
2. Signal Engineering Manual
3. Telecom Engineering SR

O. The particulars of facilities available to citizens for obtaining information, including the working hours of a library or reading room if maintained for public use

At present, no reading room is available for this purpose. Office is open from 09:30hrs to 18:00 hrs from Monday to Friday.