

CHAPTER IX

OPERATING CONTROL

9001. Definition. - Operating control means the supervision of traffic working over a given section or sections of line from a central office connected by telephone to all the stations and locomotive sheds on the section or sections.

9002. Scope.- Control work encompasses the following operations :-

- (a) Train Control - It consists of directing the movement of trains by plotting them on graphs and working powers and stock to the best advantage.
- (b) Traffic control - It means controlling and regulating the movement and distribution of coaching and goods stock and directing its loading, despatch, passage through yards and unloading.
- (c) Power Control - It consists of maintaining the disposition of locomotives and crews and arranging them to work trains as required by control from time to time.

9003. Organisation - (a) Every Divisional headquarters station has a control office, the area controlled by which is divided into section or sections generally situated between two important stations. If the lead from such control office to the extreme points of the section is found to be very long, a sub-control office at some intermediate station may also be established.

- (b) Each section is controlled by a Section Controller, the work of section Controllers being supervised by a Deputy Chief Controller. Normally, a power Controller is available to keep a watch on the locomotive position on the controlled area in order to ensure efficient utilization of engines and engine crews. Stock Controllers and Deputy Chief Controllers (Stock) have also been posted on some Divisions for efficient control and distribution of stock.
- (c) Overall supervisory control is exercised by a Chief Controller who is responsible to the Divisional Operations Manager for the efficient working of the control office or all the control offices in the Division.

9004. Area Control.- Certain specific points where density of operational activity is intense, require individual attention to themselves. There are mostly important industrial cities where the commitment of a railway for supply and clearance of stock to guaranteed industries cannot be fulfilled unless whole time attention is paid to operations effecting them. At such points Area controls are established to effectively coordinate with various agencies connected with train operation, watch and control stock for each point in the area.

9005. Functions.- The main functions of Operating Control are :-

- (i) The continuous supervision of the movement of all traffic in the controlled area with a view to achieving the maximum possible operating efficiency;
- (ii) The maintenance of accurate charts of train movement and the arrangements of Judicious crossing and precedence to the greatest advantage;
- (iii) Analysis of detentions to trains;

Whenever a train suffers a detention, the Controller ascertains the reasons for the detention and records them on the control chart for the information of Operating officers;

- (iv) The running of goods trains to the best possible paths;

The control being aware of the movements of all trains on a given section, is in a position to run goods trains to the most favourable paths;

- (v) Maintaining the fluidity of marshalling yards;

This is achieved by controlling the flow of stock into and out of marshalling yards;

- (vi) Taking remedial action in the event of yard congestions;

Immediate steps can be taken by control to remedy yard congestions arising from accident or any other cause. The remedies may take the form of diversion of traffic over another route, running unmarshalled trains from the affected yard, blocking back of traffic, or restrictions on the booking of traffic;

- (vii) Elimination of avoidable detentions to goods stock at loading and unloading points and at transhipment stations/Dump Points.;

- (viii) Allotment and distribution of coaching and goods stock to stations;

- (ix) The supply of information to continuous terminal and engine changing stations regarding the movements of trains to enable adequate arrangements for their reception and onward despatch being made;

- (x) Arrangement of engineering blocks;

Whenever a line has to be blocked for engineering purposes, the Control arranges the block in such a way as to involve the least possible dislocation of traffic;

- (xi) Regulation of ballast train;

By suitably adjusting goods train timings the Control office is able to provide the maximum working time to ballast trains between stations;

- (xii) Arranging relieves for engine crews and Guards;

The control, being in a position to know at what point the duty hours of train staff would be exceeded, can make timely arrangements for effecting their relief;

- (xiii) Ensuring that engine power is utilized to the best advantage;

- (xiv) Issuing instructions for train working in case of interruption of communications, failure of block instruments and whenever abnormal methods of working have to be resorted to;

- (xv) The speedy arrangement of relief in the event of accidents;

Relief operations in connection with accidents are coordinated by the Control Office. For details, see chapter IV, V & VI of the Accident Manual;

- (xvi) To assist in the scientific planning of time tables by actual plotting of each Mail, Express and Passenger train according to its scheduled running and in coordination with sister divisions and sister railways.
- (xvii) To keep a watch over damaged stock at roadside stations, yards and sick lines and to ensure that they are promptly attended;
- (xviii) To settle immediately irregularities on the part of line staff and afford them necessary guidance.
- (xix) To coordinate with different agencies for ensuring smooth train running.
- (xx) To keep a watch on the no. of passengers in trains to determine the suitability or otherwise of passenger train services and arrange periodical passenger train census.
- (xxi) To arrange census of goods stock from time to time and correct type wise holding accordingly,

9006. Graphs and Plotting.- (a) Trains are plotted on control graphs which consist of horizontal and vertical lines representing distance and time respectively. Along side the vertical lines, stations are spaced to a uniform scale of 1 inch (25 mm) to 27 kilometres. Each one hour is first divided into 6 units of 10 minutes each and each such unit is further sub-divided into 5 smaller units of 2 minutes each.

(b) Each control graph has the following information printed on it :-

- (i) Total distance of the section in kilometres.
 - (ii) Distance in kilometres between each station on the section.
 - (iii) State of weather in each shift.
 - (iv) Engineering restrictions on the section.
 - (v) Code names of each station on the section.
 - (vi) Time lost by each train on Loco, Traffic or Engineering account at or between stations.
 - (vii) Section Controller's remarks against item (vi);
 - (viii) Time made up by each train on Loco, Traffic or Engineering account.
 - (ix) General remarks.
- (c) In plotting the various trains the following coloured pencils shall be used :-
- (i) Red-Mails, Expresses and other trains requiring top priority.

- (ii) Blue-Passengers.
- (iii) Black-Through and Shunting Goods.
- (iv) Yellow- Goods train- Crew completed 10 hours duty.
- (v) Green-Military specials, crack specials, Fast Express Goods, SQTs and any other important Goods trains.
- (d) All Up trains are to be plotted from bottom upwards, diagonally towards the right and all down trains from top downwards and also diagonally towards the right.
- (e) For judicious crossings and precedences, it is necessary to have advance plotting of at least 2 hours in the form of rough easily erasable lines drawn on the basis of the trend of running of the various trains.

9007. Master charts.- 24 hours charts for every section are prepared which show the running of each Mail, Express or passenger train over the section according to its scheduled running. In between the running of trains carrying passengers, paths for goods trains are worked out and plotted. Such charts are called Master Charts. They are helpful in revision of time tables and planning the running of any extra train and guidance of section controllers, and should be displayed on the boards to which they refer.

9008. Forecast.- It is an information conveyed in advance by sister control offices, adjoining divisions, adjoining railways and Milrail about the availability of stock-train wise, direction wise, commodity wise, type of stock wise (if there is need for stock of some particular description), and break of gauge transhipment point wise.

9009. Declaration.- (a) Before staff are allowed to work independently as Controllers, they shall be required to pick up duties on the boards they would have to work. This learning must be under the guidance of the section controller on duty. In addition he should be given practical learning of at least Two Junction Station and Section by traveling in Goods train B/van each for one week.

(b) After the employee has taken learning, he shall write and sign the following declaration in a register specially maintained for the purpose :-

"I hereby declare that I have taken learning on.....board/boards to my entire satisfaction and can, now, work independently as a section controller on this/these board/boards."

The Chief Controller shall write the following remark below the above declaration and sign it :-

"Shri.....was given learning on.....board/boards from.....to.....
I have watched his progress and feel that he can work independently on this/these board/boards."

The Chief Controller may, at his discretion, put such employees to a test before allowing them to work independently.

(c) In case of sub-control offices where the Chief Controller is not available, the duties herein assigned to the Chief Controller shall devolve on the senior most Deputy Chief Controller.

Duties of Control Staff

9010. The main duties of control staff are given in para 9011 to 9016. These are only guides to their day to day working and are not exhaustive.

9011. Chief Controller.- The Chief Controller shall be responsible for :-

- (i) checking Control charts and bringing to the notice of the Divisional Operations Manager any avoidable detentions to trains;
- (ii) maintaining all statistics regarding the punctuality of passenger trains;
- (iii) checking all stock papers before submitting them to the Divisional Operations Manager;
- (iv) paying personal attention to divisional or foreign interchange obligations;
- (v) watching detentions to stock at stations and transshipment points / Dump Points;
- (vi) watching the work of marshalling yards;
- (vii) maintaining liaison with neighboring divisions in regard to goods train operation;
- (viii) Supervising the preparation of goods trains time tables;
- (ix) watching the turn-round of locomotives and rolling stock;
- (x) checking total engine hours and shunting engine hours;
- (xi) checking rest hours of running staff;
- (xii) arranging engineering blocks;
- (xiii) taking supervisory charges of the affected section in the case of accidents;
- (xiv) supervising and directing the work of the control office as a whole; and
- (xv) carrying out any other duties allotted to him by the Divisional Operations Manager.

9012. Deputy Chief Controller.- The Deputy Chief Controller shall be responsible for :-

- (i) arranging goods trains so that they run with suitable loads and to suitable paths and supervise locomotive managements, arranging for timely schedule and its working within prescribed jurisdiction;
- (ii) giving timely intimation to junctions and terminal stations regarding the movement of trains so as to enable arrangements for their reception and onward despatch being made;

- (iii) allotting empty stock to stations in accordance with current priority regulations (where a Deputy Stock is not posted);
- (iv) maintaining constant touch with adjacent divisions and railways to facilitate the working of traffic;
- (v) dealing immediately with significant detentions to trains;
- (vi) keeping constant touch with the working of marshalling yards and taking timely action to deal with congestions;
- (vii) giving advice of serious accidents to all concerned and taking charge of the affected section;
- (viii) supervising the running of oversize consignments;
- (ix) maintaining liaison with the Power Controllers;
- (x) Assistance & guide to Section controllers in their planning of train running.
- (xi) carrying out any other duties allotted to him by the Chief Controller; and
- (xii) discipline of Control staff in the absence of the Chief Controller.

9013. Section Controller.- The Section Controller shall be responsible for :-

- (i) reporting for duty fifteen minutes before the time he is due to take over and ascertaining the 'position' on his section;
- (ii) recording the movement of trains on the 'Control' graph affecting crossings, precedence. Connections and shunting judiciously; reasons for every detention must be given;
- (iii) arranging for the supply and clearance of stock;
- (iv) arranging for the clearance of small consignments from roadside stations;
- (v) advising stations in advance of the work to be done on shunting trains;
- (vi) informing sheds and stations of the late running of trains to avoid the calling of crews and Guards earlier than necessary or to put back trains where advisable;
- (vii) informing big stations and concerned section controllers of the trains on the section and their anticipated arrivals to give time for arranging reception lines and connecting trains onward;
- (viii) keeping in close touch with engineering blocks and working of ballast trains to give the maximum possible time without causing detention to other traffic;
- (ix) in case of accidents appreciating and regulating the situation promptly and adjust the movement of traffic in view of the circumstances prevailing under the guidance of Deputy and Chief Controllers;

- (x) keeping a watch over damaged vehicles detached at roadside stations and arranging transshipment of their contents and proper attention on the part of train examining staff;
- (xi) eliminating all possible detentions to trains and stock;
- (xii) watching the working of marshalling yards;
- (xiii) making timely arrangements for the relief of Guards and Assistant Guards whose duty hours are likely to be exceeded on road;
- (xiv) transmitting message for meals for running staff and passengers;
- (xv) recording stock reports (where stock controllers are not posted); and
- (xvi) carrying out any other duties allotted to him by the Chief Controller or the Deputy Chief Controller.

9014. Power Controller.- The Power Controller shall be responsible for :-

- (i) planning and directing engine movements so as to ensure efficient engine utilization;
- (ii) obtaining assistance for sheds/Stations short of engines and crews;
- (iii) making timely arrangements for the relief of crews whose duty hours are likely to be exceeded on the road;
- (iv) taking timely action to prevent engine failure;
- (v) arranging relief in case of accidents as per chapter IV, V & VI of the Accident Manual
- (vi) maintaining board indicating power position;
- (vii) rendering advice and assistance to locomotive running staff; and
- (viii) carrying out any other duties allotted to him by the Divisional Mechanical Engineer and Divisional Operations Manager from time to time.

9015. Stock Controller.- (i) He shall take the coaching and goods stock reports from stations, marshalling yards, transshipment points and interchange junctions and on their basis prepare the Divisional Stock Report.

- (ii) He will also maintain the details of loading indents with ODR and Priorities.
- (iii) He shall work under the direct supervision of the Deputy Chief Controller (Stock) where posted and Deputy Chief Controller on duty, where Dy. Chief Controller (Stock) is not posted, and shall carry out any other duties (regarding stock) allotted to him by Deputy Chief Controller (Stock) or the Deputy Chief Controller on duty.

9016. Deputy Chief Controller (Stock) :- The Deputy Chief Controller (Stock) shall be responsible for :-

- (i) scrutinizing the previous day's Stock Report in details with regard to the oldest date of registration, nature of goods and the type of stock required for lifting goods as per the oldest date of registration;
- (ii) checking interchange position, train operation, wagon holding, Divisional Stock Report and position of empties;
- (iii) checking in details and making an assessment of the position obtaining at transshipment points/Dump Points;
- (iv) checking of the different Stock Reports received from the various points and planning in advance daily supply of stock, loading and clearance, keeping in view interchange obligations and transshipment commitments;
- (v) chasing movement of stock as per supply order issued on the previous day;
- (vi) chasing crane movements and expediting release of crane consignments by contacting on phone the Station Masters concerned;
- (vii) keeping a close watch over hot axle, special type and unconnected wagons;
- (viii) cross checking daily restriction bulletins with restriction messages received from Headquarters office and issuing such restriction bulletins;
- (ix) assisting the Assistant Operations Manager in allotments;
- (x) keeping a close watch over the movement of seasonal perishable traffic and supply of suitable stock for their quick clearance;
- (xi) watching movements of damaged loaded stock in sick lines and yards on the division;
- (xii) offering comments on public and Headquarters office correspondence regarding non-clearance of traffic and future prospects of its clearance;
- (xiii) explaining on phone doubts and misgivings regarding restrictions and loading orders to Station Master; and
- (xiv) carrying out any other duties, regarding control and distribution of Stock allotted to him by the Chief Controller, or the Assistant Operations Manager.

Records and Registers

9017. Records and Registers will be maintained in the control office in accordance with local conditions as per instructions issued by H.Q., DRM and Sr. D.O.M. from time to time.

Staff Duties towards Control

9018. Staff to obey orders of control.- (a) Station staff, shed staff, Drivers and Guards must obey orders issued by the Control so long as these orders are consistent with the General and Subsidiary Rules and the instructions contained in this manual.

9019. Control Order Register - (a) All orders given to the Station Master or Lobby, Shed by Control and ordered by Control to be taken down in writing must be entered in a control Order Register to be maintained at all stations and shed. Each entry must be initialled and the time at which it is taken down, recorded. At the end of each turn of duty the relieved as well as the relieving Station Masters or Lobby, Shed must sign their names in full below the last entry in the Register.

- (b) On days when no orders are received from Control, a 'Nil' entry must be recorded and signed as prescribed above;
- (c) When a Station Master or Lobby Incharge has received an order from the control and entered it in his register, he must repeat it to the Control in order to satisfy both himself and the Control that he understands it.

9020. Obtaining Control's permission to ask for line clear.- When the Control is in operation the Controller shall be responsible to inform in advance the station whenever the Station Master is not to ask line clear for a particular train without the Controller's permission.

Such authority, however, will not relieve the Station Master of his responsibility for observing the General and Subsidiary rules on the subject.

9021. Starting Stations to report particulars of outgoing trains.- As soon as a train leaves a train-starting station the Station Master must intimate the following particulars to the Control Office :-

- (i) Number and description of the train;
- (ii) Locomotive Number and Class;
- (iii) Driver's name;
- (iv) Guard's name;
- (v) Load of the train (in tons and vehicles);
- (vi) Particulars of shunting to be done on the journey; and
- (vii) Time of departure.

9022. Intermediate Stations to report arrival and departure time of trains.- Station Masters of intermediate stations must communicate to the Control as early as possible, the following information in regard to every train dealt with :-

- (i) in case the train has run through, the time it passed the station;

- (ii) if it is a stopping train, the time of arrival and departure along with the explanation for any detention beyond the scheduled stoppage;
- (iii) if any shunting has been performed, the number of vehicles attached and detached; and
- (iv) if any extra time has been taken in loading or unloading of packages and the number of such packages.
- (v) If any extra time has been taken on any account, full details of detention.

9023. Terminating stations to report particulars of incoming trains.- (1) Station Masters of terminal and engine-changing stations must, as soon as possible after the arrival of a train, communicate to the control the time of arrival and the load of the train.

(2) Guard of the train to communicate to Station Master/Control the full detentions particular of train, at all terminal/crew chaging stations.

9024. Engine Movements to and from Sheds to be reported.- Shed Foremen must communicate to Control the time at which locomotives sent at bahr line.

9025. Abnormal occurrences to be reported.- Control must be informed immediately of any untoward incident involving the obstruction of a running line or in any way affecting the safety of train working.

9026. Accidents to be reported.- In the event of accidents, full details must be furnished by the Station Master to Control and the nature of assistance required indicated. Detailed instructions in this regard as incorporated in Accident Manual must rigidly be followed.

9027. Defects in signals etc. to be reported.- Station Master must advise Control as promptly as possible of any defects in signals, points, block instruments or watering arrangements so that Control may take action to get the defects rectified by the Department concerned.

9028. Time to be checked with Control.- Station Master and Lobby incharge must check their time with Control at 1600 hrs. every day, when Control gives a general ring and announces that the time is 1600 hrs.

9029. Running staff to obtain Station Master's permission before speaking to Controller.- Guards and Drivers on duty may with the permission of the Station Master, use the Control telephone when they have any report to make to the Controller.

9030. Private and verbose conversations forbidden.- All conversation with Control must be to the point and brief. Conversations on private matters are forbidden.

9031. Mode of using Control phone.- (a) Station Masters and others must not, ordinarily, attempt to speak to Control unless they have ascertained by lifting the receiver and listening in that the line is free. They must then announce the name of the station or Lobby from which they are speaking and wait for its being repeated by the Controller before beginning the conversation.

(b) When, however, an urgent message has to be conveyed and the line happens to be engaged, the station name must be called out and a demand made for the line to be cleared. The

Controller will thereupon discontinue the conversation in which he has been engaged and attend to the station making the interruption.

Such 'clear the line' call must be made only when there is a genuine reason to do so.

9032. Station Masters to attend 'Control' calls promptly.- When the Controller wishes to speak to a station, he must give a ring to that station, whereupon the Station Master on duty must attend the phone and call out the name of his station.
