

CHAPTER - XXXI

FREIGHT OPERATIONS INFORMATION SYSTEM (FOIS)

1.0 **INTRODUCTION**

There has been a phenomenal growth of traffic on Indian Railways during the last few decades which has resulted in massive increase in Diesel/Electric locomotive, Wagons and other assets etc. Management of such large inventory became very difficult through manual procedures which is time consuming and global view of the traffic movement and stock position at yards not being made available was causing a great problem in the management of the costly assets. Taking any kind of decisions for the Senior Managers was becoming very difficult particularly when significant modernisation techniques are being adopted in certain areas like, Traction, Signaling, Rolling stock and other equipment by railways. Since innovative ideas have been introduced in operations like Jumbo Rakes and Unit trains to transport bulk commodities, it became necessary to introduce Information technology to handle the operations and business processes, for strategic advantage. In this context Computerisation of freight operations has been conceived. FOIS systems have been designed with a modular approach in the functionality and it has been planned that these modules will be implemented in a phased manner, territory wise.

2.0 **OBJECTIVES**

FOIS has been designed with a prime objective to provide:-

- (i) An efficient information systems based on absolute current State of Art Technology and efficient Communication systems.
- (ii) To work as a management tool to optimize utilization of costly assets and resources by improving the distribution of Rakes/Wagons, Scheduling and Routing Traffic.

3.0 **BENEFITS**

The benefits that accrue from the use of the FOIS software are:-

- (i) Correct information captured at source.
- (ii) Reduces the drudgery involved in the manual collection of operation data.
- (iii) Uniform statistical information available at all levels.
- (iv) Provides on-line information of accurate forecasts to assist management in planning control and coordination.
- (v) Ensures optional crew management and monitors statutory limits for running duty and overtime payments.
- (vi) Tracks consignment in the pipeline through movement cycle captured by the RMS module for managerial efficiency.

- (vii) Ensures prompt way billing, accountal of freight earnings, provides efficient system of documentation for booking at goods handling terminals.
- (viii) Improves quality of service to customers by giving prompt information to their queries related to the stock demanded or booked and location of goods consigned to them, thus, resulting in the increased levels of customer satisfaction.
- (ix) Global view for planning Decision Support Systems.

4.0 SCOPE

The entire gamut of Freight operation information systems has been categorised into two broad groups-Core and Subsidiary. The systems present an integrated picture without having to duplicate inputting and validation of data common to both for formulating queries and its own information.

The various functions which contribute to Core Group are:-

1. Stock movement and control.
2. Train movement and control.
3. Locomotive movement and control.
4. Terminal Management.

The Functions which contribute to subsidiary group are:-

1. Revenue Accounting.
2. Crew management.
3. Fuel Management.
4. Locomotive Repair Management.
5. Wagon Repair management.
6. Safety Management.
7. Statistical Information.

5.0 DESIGN & ARCHITECTURE

The FOIS architecture is based on the Indian Railways organisational hierarchy, its present and future requirements. Based on the business processes that are being adopted, the business model developed in the FOIS – IT architecture is based on the assumptions:-

- (i) The current business practice of bulk movement in rake formation is the accepted norm for future also. Around 80 to 85% of traffic already moves in train-load, majority of which comprise rakes of a similar type of stock.
- (ii) Global perception is more important, with respect to tracking of consignment and Rakes rather than of individual wagon, locomotive and train. The insight and pipeline of consignment and rakes should be seamlessly available.

- Railways would like to share information on booking and movement of consignments with individual customers also.
- (iii) The operations and data capturing, will remain control centric for train, rake locomotive and stock management and terminal centric for booking, loading, unloading, and delivery for quite some time.
 - (iv) Integrity of Operation and Commercial data is an absolute necessity. RMS and TMS application are conceptualized, to provide the integration with the other subsystems as and when they are developed.

Based on the above architecture, RMS and TMS have clearly emerged as core modules of FOIS and other applications are stand alone applications and can easily integrate with RMS/TMS using appropriate middle-ware technology for sharing information locally. Therefore, a strategic approach has been adopted to computerize Railway operations by implementing Rake Management System(RMS) & Terminal Management System (TMS) in a phased manner using modular approach.

6.0 SALIENT FEATURES OF THE RMS/TMS

Rake Management System (RMS) covers computerisation of various operational functions relating to Freight, Train, and yard activities. Terminal Management Systems (TMS) relates to computerisation of different activities pertaining to good shed working.

RMS

The RMS software has been developed in 2 phases for ease and manageability of the software during implementation.

Phase 1 – P1 Module

The P1 module includes the following features.

1. Rake based consignment tracking and pipeline.
2. Train/Rake operation.
3. Stock Holding in terms of summary of wagon types.
4. Train and stock Interchange.
5. Terminal Handling performance.
6. Loco holding, outage and power on-line.
7. Reporting to take care of Train/Load on summary basis.

Phase 2 – P2 Module

The P2 Module includes the following features.

1. Invoice based consignment tracking
2. Wagon wise Stock Holding.
3. Reporting of consist Wagon wise.
4. Invoice based loading originating tonnage and revenues.
5. Wagon wise Interchange.

6. Statement of missing Wagons/wrongly delivered.

TMS

The TMS software which deals with good shed working is P3 module.

Phase 3 – P3 module

1. Computerized booking and delivery of consignment.
2. Station Accounting.
3. RR generation/Transmission.
4. Improved customer interface.

7.0 SYSTEM ARCHTECTURE

Key components of the architecture arrived at are:-

Intelligent terminals have been placed at the field locations to capture the data from the place of activity namely control offices, yards, goods sheds, C & W depot, Loco sheds etc., and connected to the identified Application Server through reliable communication links for transaction processing.

Application servers have been placed at the most optimum locations for transaction processing within its own operational jurisdiction and to provide Management Reports at Zonal levels. These servers will be connected to the Zonal Hd. Qrs., Divisional Control Offices, yards, interchange points, and goods sheds etc., with a reliable and integrated net work. The servers will be networked amongst themselves and to the central server for global level transactions.

The central Server will provide management Reports at Board level and act as repository of all the global data as also provide global services to maintain referential integrity of the databases including master files.

8.0 NETWORK ARCHITECTURE

Railway telecommunication network, leased lines, DOT communication media has been provided as a means, for transfer of data. VSAT Technology for communication for a reliable and fast means of data transfer has been provided where ever possible and necessary.

APPENDIX 'A'

DUTIES AND RESPONSIBILITIES OF STATION AND RUNNING STAFF IN CONNECTION WITH THEFTS ETC.

1. Guard's statement.- To facilitate investigations in the case of thefts from running trains it is imperative that Guard's/Asstt. Guard's statements are in the hands of the Railway Protection Force Staff as early as possible, as without such statements investigating officers conducting inquiries are seriously handicapped:-

- (a). To obviate this difficulty, immediately a theft is discovered, Guards/Asstt. Guards shall give all available and necessary information in connection with such a theft in the proforma shown in para 2 below. The questions shown there in, if correctly answered, will materially assist investigations and Guards/Asstt. Guards are, therefore, requested to omit no vital points.
- (b). The proforma shown in para 2 is to be made out and signed by Guards/Asstt. Guards in the case of wagons/brake vans found on the train with defective seals, rivets, ventilators, windows or roofs and the packages under their charge in the Brake vans, whether criminal interference is suspected or not. The Guard/Asstt. Guards must make out this report in quadruplicate and make over three copies of the same to the Station Master on duty, retaining one copy for his own record.
- (c). If criminal interference is not suspected, the station Master shall retain one copy of this report as the Station record and send one copy immediately to the Inspector incharge of the RPF post which has jurisdiction (whether the RPF post is at his station or else where) and the third copy to the police with a complaint for investigation. An exact copy of the proforma shown in para 2 is to be submitted along with the Missing Goods Report to the Chief Commercial Manager.
- (d). In case criminal interference is suspected, the Station Master shall immediately give all the particulars to the Section Controller, who shall, forth with, advise G.R.P., Inspector incharge of the R.P.F. post that has jurisdiction and the Divisional Commercial Manager. In case the section is not controlled, the officials mentioned above shall be advised through urgent Train Message. The Station Master shall make over one copy of the Guard's report each to G.R.P. and R.P.F. officials who visit the station.

2. (a). Specimen of the form to be used by Guards in case of running Train theft.

Note:- When the occurrence is detected on the run, the train must be stopped at the next station and this report given to the Station Master.

Statement of Guard.....in charge of train No.....on.....from.....
arriving.....station with Right/Left side seals of wagon(s)

APPENDIX 'A'

**DUTIES AND RESPONSIBILITIES OF STATION AND RUNNING
STAFF IN CONNECTION WITH THEFTS ETC.**

No. (s).....both defective or deficient.

Questions	Answers
1. Name of the Guard/Asstt. Guard with Hd. Qrs. from where the charge of the train was taken over by him.	
2. Were the seals intact when you took over the train ?	
3. Were packages in the Brake van intact when you took over the train. If not what was the condition of the packages ?	
4. Were the defects in packages recorded in your rough journal and the rough journal of the incoming Guard/Asstt. Guard, if so state the message no. issued in this connection with contents ?	
5. Was the Brake van locked in both sides by you ?	
6. Where were the seals last checked and was result recorded in you journal ?	
7. Where the load enroute detained after the last seals checked, with reasons of detentions ?	
8. Site of occurrence, if observed (The No. of nearest telegraph Kilometre post should be recorded ?	
9. Whether there is a rising gradient at the site ? If possible record particulars.	
10. Was the train stopped in the block section ? If so, state reasons there of with location of site.	
11. Whether the train was attacked by day or night ? If by night, was it a moon-lit night ?	
12. Whether any persons were noticed attacking the train ? If so, the approximate number.	
13. Whether they were noticed attacking the train ? If so, in what direction and their visual identification.	
14. Whether any cart, lorry or other vehicle was observed ?	
15. Whether any bags or packages were noticed alongside the track ? If so, whether their nature could be determined ?	

**DUTIES AND RESPONSIBILITIES OF STATION AND RUNNING
STAFF IN CONNECTION WITH THEFTS ETC.**

16. What was the position from the engine of the vehicle(s) attacked ? (A true copy of entries on both side of the seal cards should be made out).
17. Whether the train was escorted ? If so, give names and numbers of the escorting staff.
18. Give names of Asstt. Guard and Driver.
19. Were there any other staff on the train ? If so, give names and designation.
20. Give full details of the occurrence as known to you.*
21. State date on which you last had occasion to give report on running train theft. Give Train No.

Guard

(b). Station Masters of Guards/Asstt. Guards headquarters stations shall ensure that each Guard receives an adequate supply of these forms.

Checking of wagon seals and rivets. (a) Guards when taking over their trains at starting stations and when attaching or detaching wagon at inter mediate stations must carefully see that they are correctly sealed, riveted and E.P. locked, that all ventilators, windows and doors on both sides are properly secured and that roofs of wagons have not been tampered with. These examinations must be made jointly with a Trains Clerk and a Senior Rakshak, deputed for the purpose or, where there are no trains Clerks and Senior Rakshaks, with the Station Master on duty. In case there are no sealed wagons on the trains an entry to this effect shall be made and signed by the Guard in the seal checking book. In case of through trains the joint check and certification of results shall be done by the Guard and the Senior Rakshak only as trains Clerks do not attend such trains.

(b). The joint examination referred to in sub-para (a) above shall be noted in the seal examination book, which shall be kept in the custody of the Senior Rakshak if one is available for seal checking all the 24 hours or in the custody of the Station Master on duty if a Senior Rakshak is not always available for this duty.

(c). If a train is escorted by an R.P.F. armed or unarmed guard, they shall also check the seals along with the Guard and the Senior Rakshak.

(d). At station where a goods train is likely to stop for 30" or more, the Guard shall have a look of his train jointly with the Senior Rakshak on duty and the armed or unarmed guard if one is on the train. If R.P.F. staff is neither provided at the station nor travelling with the train, the Guard shall look at the train all by himself. The result shall be recorded in the seal checking book.

(e). When a train having one or more loaded wagons is stabled at a station on account of the crew being long hours on duty or for any other reason, the Station Master shall, at once inform the Inspector incharge of the R.P.F. post that has jurisdiction to depute his staff to guard the train. If this

**DUTIES AND RESPONSIBILITIES OF STATION AND RUNNING
STAFF IN CONNECTION WITH THEFTS ETC.**

post is situated at another station, the Station Master shall inform the Section Controller and the later shall send information to the Sub-Inspector concerned. If the section is non-controlled, the Station Master shall advise the Inspector/Sub-Inspector concerned.

(f). Should any wagon be found with rivets deficient at the time of check, a memo should be issued, at once, to the Yard Master, Trains Clerk or other official responsible to have the wagon riveted. Should any train leave a junction of interchange with any loaded wagons improperly secured due to the failure of the other railway's staff to rivet the wagon in time, a full report giving details of the wagons so neglected should be made by the Guards to his Divisional Railway Manager. The Guard shall be held personally responsible for any neglect of duty in this respect.

(g). Station Masters must report to the Divisional Railway Managers concerned where staff ignore the above instructions.

(h). In the event of disputes between the Guard and the Number Taker or Senior Rakshak with regard to defective seals, rivets, ventilators, windows or doors, the Station Master shall personally inspect the defect or depute a responsible person to decide the matter under dispute.

(i). If wagons are detected with panels cut or any other damage and it is suspected that some theft has taken place, suitable preventive repairs such as applying of "Sealtite" should be undertaken at the place where such a damage comes to notice, and if it is not possible the suitable repair should be carried out at the next TXR station to rectify the defect.

4. Treatment of wagons discovered with seals and/or locks rivets defective.- (a) When at any station a wagon is found to have a defective seal, but rivets intact, it must be opened immediately and if after a visual examination of the contents, there is no reason to suspect criminal interference, the defect must be reported immediately to the Station Master on duty, who shall make necessary arrangements to have the wagon riveted resealed and destination station advised through control on controlled sections and by message on non-controlled sections to check contents (no check being made at the point where this defect is noticed). A remark must be made accordingly in the seal examination book. In the case, however, of a wagon containing piece-goods or of wagons sealed from other railways, a complete check must be made and action taken as detailed in para 3 (d) (i) and sub-para (d) and (e) of this rule.

(b). When a wagon is found on running train at a road-side station without seal labels or rivets or with defective seal labels or rivets the Guard must report the fact to the Station Master on duty, who shall arrange to reseat and rerivet such wagon and despatch it with the same train, advising destination station or the next engine changing station, whichever is nearer, by message on non-controlled sections and through Controller on controlled section to despatch the wagon for checking contents. The Inspector incharge of the RPF post that has jurisdiction must be included in these advices, Control shall ensure that instructions to detach the wagon are carried out. If, however, no criminal interference is suspected the destination station should be advised only. These facts must be noted in the seal examination book.

(c). When a wagon is found with seals defective, including knotted tape or rivets deficient, and there is reason to suspect criminal interference, the matter must be reported at once to the Station Master on duty, who shall make arrangements to examine the contents in the presence of the Guard

DUTIES AND RESPONSIBILITIES OF STATION AND RUNNING STAFF IN CONNECTION WITH THEFTS ETC.

of the train, the R.P.F. staff, if any available at the station or on the train. The Station Master, or other responsible official specially deputed for this purpose, must note the results of the examination in the seal examination book.

(d). If the wagon is found with the contents unshakeable, or if the checking of contents shall unduly detain the train, the wagon must be detached for checking and the fact noted in the seal examination book.

(e).. Before a wagon found with deficient seal and/or rivets is detached for checking, it must be resealed and/or reverted and Guard shall sign the freshly sealed card label, which must be countersigned by the checking staff. When the seal label are intact but rivets are deficient, the wagon need not be checked. In cases of wagons found on his train with defective seals, rivets, ventilators, windows or doors and cut roofs, the Guard shall take necessary action in accordance with sub-para 4 (c) above.

(f). Examination of contents of such wagons must be made in the presence of the Inspector incharge of the RPF post that has jurisdiction and the Station Master (or such other responsible staff as may be specially deputed by the Station Master or Inspector RPF for this purpose). If the R.P.F. post is situated at another station, the Station Master shall intimate the Inspector incharge/control on controlled section and on non-controlled sections by message to attend such joint examination.

5. Wagons found with broken seals in yards. - If a wagon that has been received correctly sealed is found to have/had its seals tampered within a station yard, the Station Master must examine its contents in the presence the R.P.F. staff taking necessary action for reporting deficiencies, if any.

6. The Guard of the train at the terminating station or where the guard is relieved of his duties, he should before leaving his duties, ensure joint checking of seals, rivets, E.P. Locks, tarpauline, ventilators, windows. Doors etc., with R.P.F. and train branch staff and in their absence the SM/ASM on duty and make over the charge of the train after making entry in the seals checking book, to the Sr. Rakshak/RPF or SM, as the case may be.

7. Checking of packages in the open charge of guards/Asstt. Guards in Brake vans of passenger trains.

(a). Guards/Asstt. Guards when taking over their trains at the starting stations must check the packages loaded in the Brake vans not only in respect of their number but also in respect of their condition and will ensure that the invoices are also handed over to them by the parcel staff or the incoming Guards/Asstt. Guards. In case any case is found in defective/loose or resewn condition, the same should be got reweighed and proper remark endorsed in the despatch book/rough journal of the parcel staff/incoming guard/Asstt. Guard.

(b). At destination station or while handing over charge at interchange point, the packages in the Brake van along with the papers must be handed over to incoming guards/Asstt. Guards and their signature obtained in the rough journal and in case any defect is noticed in any of the packages the same should be immediately reported to the Station Master of that Station besides reporting to Inspector RPF and GRP., having jurisdiction over the Station/Area.

APPENDIX 'B'

PERIODS OF DUTY AND REST OF RUNNING STAFF

1. Running Staff (Traffic & Loco) - (a) As a general rule running staff should be classified as "Continuous".

(b) Running staff can also be classified as "Essentially Intermittent", if their work load warrants such a classification.

2. Limitations of hours of work.- The statutory limit for the hours of employment of running staff classified as "continuous" has been fixed at 54 hours a week on the average in a month.

3. Duty hours.- In the case of Loco and Traffic running staff duty hours should count from "signing on" to "signing off".

4. Time for taking over and making over.- The time allowed to the Loco and Traffic running staff for taking and making over as indicated below should form part of their duty hours :-

(i) Loco running staff are allowed.-

(a) 45 minutes before departure from the Engine Shed and 15 minutes after arrival in the Engine Shed for engine attendance, except in the case of garret and special types of engines for which more time may be allowed in circumstances warranting such a course. During this period they are required to attend to the following items of works :-

(A) Before departure from Engine Shed :-

(1) Reporting for duty in Shed/Lobby.

(2) Checking up and signing for all necessary notices, restriction register, etc.

(3) Checking up Fuel in locomotive.

(4) Taking over all necessary tools, etc.

(5) Examining engine thoroughly before leaving shed/Station and seeing that repairs booked after the previous trip have been properly executed.

(B) After arrival in Engine Shed/Lobby -

1. To examine engine thoroughly, in conjunction with the examining fitter.

2. To record repairs, considered necessary, in the repair book.

3. To hand over tools, etc.

4. To sign off duty.

Note :- The time prescribed for engine attendance is the time taken in the engine shed only, i.e. the time taken before the departure of engines from the shed and after their arrival in the shed.

APPENDIX B
PERIODS OF DUTY AND REST OF RUNNING STAFF

277

- (b) (i) The time for taking the engine from shed to the station and vice versa as per schedules at Appendix 'E' of the "Hours of employment Regulations and Rules regulating provision of Leave Reserves".
- (ii) **Traffic Running Staff.**- (a) Express, Mail, Passenger Guards - 30 minutes before the departure of a train for taking over and 30 minutes for making over after arrival.
- (b) **Goods Train Guard** - 45 minutes for taking over and 30 minutes for making over.
- (c) **Mixed Train Guard** - 30 minutes for taking over and 30 minutes for making over.

Note :- The above rules apply to the stations from where trains originate or terminate. For through goods trains at intermediate stations, where trains are stopped for change of running staff, the Guard should sign 'ON' 10 minutes before the scheduled/expected departure of the train and crew 15 minutes before the arrival of the train subject to maximum limit as laid down above.

5. Waiting at a place of duty.- The time during which an employee is waiting at place of duty and not resting should be included in the hours of employment since the employee is available for such suitable work as the administration may assign to him.

6. Travelling on duty.- In the case of running staff, full credit should be given for the time spent in travelling spare, provided such staff travel beyond 8 kms. and that no travelling facilities are provided viz. crew rest van.

7. Travelling of spare crew.- With regard to spare crew travelling in crew vans, or in reserved accommodation, no credit need be allowed either for halts at stations or when the train is in motion, as they are supposed to be on rest for the whole of the period.

8. Continual night duty.- In the case of Loco and Traffic running staff, continual night duty should not normally exceed six nights at a stretch.

9. Away from Headquarters.- Loco and traffic running staff should not normally be away from headquarters for more than 3 or 4 days at a stretch.

10. Periodic and compensatory rest.- The Loco and Traffic running staff may be given 4 periods of rest of not less than 30 consecutive hours each or five period of not less than 22 consecutive hours each in a month in partial modification of the weekly rest of 30 consecutive hours recommended for continuous workers. Such rest should be given at Headquarters and should always include a night in bed. It should be given as far as possible once in every 10 days. To enable staff to make advantageous use of periodic rest, it is desirable that they should be advised of this before its commencement as far as possible.

11. Rest for running staff.- Rest for running staff should be based on total duty which should be reckoned from signing 'on' to signing 'off' and should be as under :-

(i) **Rest at Headquarters.**

(a) For duty of less than 8 hrs - 12 hrs.

APPENDIX B

PERIODS OF DUTY AND REST OF RUNNING STAFF

(b) For duty of 8 hrs. or more - 16 hrs.

- (ii) **Rest at out station.-** They should be allowed 8 hrs. rest of running duty of 8 hrs. or more. (staff may sign for rest to the extent of 6 hrs., if they so desire).

Note .- (i) "Running duty" means duty performed from the actual departure of the train from the starting stations till the actual arrival of the train at the destination.

- (ii) In either case a man should not be called upon to work under 6 hours of rest except when unavoidable necessity arises as in the case of accidents or breakdown.

- (iii) When a railway servant performs the duty of less than 8 hours referred to in (i) (a) above and the duty performed is less than five hours, the minimum outstation rest may be less than 6 hours but should not be less than the total duty plus one hour.

12. Rest at Headquarters and out-station when working short trips.- The interval between trip shall be treated as "duty", if it is equal to or less than one hour plus time allowed for train or engine attendance after the last trips plus time allowed for train or engine attendance before the next trip, this period being increased at the discretion of the Railway Administrations, where local conditions, such as distance of running room from the traffic yard, etc. warrant such an increase.

13. Duty at a stretch.- In the case of Loco and traffic running staff, running duty at a stretch should not ordinarily exceed 10 hours and they should be entitled to claim relief after 10 hours, provided they have given two hours notice for relief. For the purpose of computing duty at a stretch, time should be calculated from the actual departure of the train.

14. 10 hrs rule:- 10 hour rule as applicable to the running staff should be implemented subject to the following provisions:-

- (1) The under mentioned periods will count for duty under the 10 hour rule:-
 - (i) Engine attendance time as prescribed, and
 - (ii) Time taken from starting station upto crew changing station including intermediate detentions.
- (2) The following periods will not count:-
 - (i) From Bahr line to the station at the starting point, pre-departure detentions and traveling pilot; and
 - (ii) At the terminal station from the station to the shed; where the destination point is other than a station say, a yard, a convenient point or area would have to be locally demarcated as the destination station for the purpose of 10-hour rule.
- (3) Measures have already been taken by the Railways to restrict the duty hours at a stretch from the time of 'signing on' to the time of 'signing off' to 10 hours and provide them with relief thereafter save in exceptional circumstances of unavoidable operational, exigencies or of accidents, floods, emergencies, etc.
- (4) The time spent by running staff on non-running duties such as traveling spare on duty or waiting at a station for returning to headquarters etc. will continue to be excluded for the purpose of 10-hour rule.
- (4.1) The Ministry of Railways also desire to clarify that the running staff will not claim relief within 10 hours of their duty at a stretch while running through their headquarters nor will they resort to stabling of trains short of destination on completion of 10 hours duty.

APPENDIX B
PERIODS OF DUTY AND REST OF RUNNING STAFF

279

- (5) The instructions in regard to the 10-hour rule, have no applicability in respect of payment of overtime in regard to which there are other directives in force.

15. To workout requirement of Drivers/crew:-

- (1) This Railway follows the following procedure for working out the requirement of running staff:-
- (a) Traffic Turn round= $2X$ run each way + outstation halt of 6 hours + terminal detention of 2 hours.
 - (b) In 14 days a driver is supposed to perform only 104 hours duty to cover home station and outstation halts including a night in bed without possibility of infringing 10 hours duty rules.
 - (c) For Diesel drivers sign on to train departure and train arrival to sign off - 30 mts. Each.
 - (d) Run each way (in hours) = $\frac{24 \times \text{Sectional distance in Km.}}{\text{Targeted utilisation of a diesel loco in the section in a day.}}$

- (2) Bare requirement of a diesel goods driver:-

(a) In case the journey is within 10 hours

$$= \frac{(\text{Run each way} + 1 \text{ hour}) \times 2 \times \text{No. Of trains each way} \times 14}{104}$$

(b) In case the journey is above 10 hours and intermediate crew changing is involved-

$$= \frac{(\text{Run each way} + 2 \text{ hours}) \times 2 \times \text{No. Of trains each way} \times 14}{104}$$

Over and above the bare requirement Leave Reserve is given at the rate of 30% of the bare requirement and trainee reserve is given at the rate of 3% of the bare requirement plus Leave reserve.

16. Permission to Leave Headquarters Station.- (i) No essential staff whether "off" duty on weekly rest or on leave should leave their headquarters stations without the permission of their immediate superior. Staff connected with the working of trains are liable to be called on duty at any time and before leaving their home they should, therefore, leave intimation behind as to where they may be found in the event of necessity.

- (ii) The grant of the periodic rest does not include permission to leave station. Such permission must be applied for in the usual manner and will be subject to such restrictions as are considered necessary by the immediate superior in the interest of work.

17. Overtime.- General instructions regulating the payment of overtime to staff are given in Chapter VIII of "Hours of Employment Regulations and rules regulating provision of Leave Reserves".

When due to exigencies of service (circumstances in which overtime is worked are explained in Para 98 of hours of Employment Regulations and Rules regulating provision of Leave Reserves) "Continuous" workers are required under specific authorisation to work beyond the prescribed rostered hours of work under HOER, they are eligible for payment of overtime according to the prescribed averaging period.

18. Calculation of hours of duty when booked for other than regular work.- The running staff when booked for the under-noted duties, should be credited daily with the number of hours as shown below in juxtaposition against each duty in the running staff hours of duty register:-

APPENDIX B PERIODS OF DUTY AND REST OF RUNNING STAFF

- | | |
|---|--|
| (a) Vision Test | 7 hrs. 25 minutes. |
| (b) Attending Enquiries | -do- |
| (c) Attending Courts | -do- |
| (d) Attending School for Refresher Courses | -do- |
| (e) Attending Divisional Office | -do- |
| (f) Booked off for clearing correspondence | -do- (Credit should be allowed if booked staff are not working on that day. Such cases should be very rare). |
| (g) Attending meetings of institutes, Welfare and Debt Committees, Staff Benefit Fund and Staff Loan Fund Committees and Staff Council. | 7 hrs. 25 minutes. |
| (h) Learning Road | Actual period from "Signing on to signing off". |
| (i) Station Duty | Actual period for which kept on waiting duty. |
| (j) Territorial Army | 7 hrs. 25 minutes. |
| (k) Suspension. | 7 hrs. 25 minutes
a day subject to a maximum of 48 hrs. per week after regularisation of the suspension period either as duty or leave. |

19. Calculation of overtime.- Running staff will be eligible for overtime in respect of additional hours incurred on duty in accordance with "Hours of Employment Regulations" as may be in force from time to time laying down the maximum hours of their duty and rates prescribed therein.

Payment of overtime work.- The payment of overtime work done by them will be made as under :-

- (a) For overtime work done by them between the limits of 'Rostered hours' and 'statutory hours' payment will be made at 1½ times the ordinary rate of pay.
- (b) For overtime work done beyond the statutory limits payment will be made at twice the ordinary rate of pay.

Rostered hours for the purpose of regulating payment of overtime.- In case of Running staff other than those who work on fixed roster, the deemed rostered hours will be 104 hrs. in a "two weekly" averaging period. In the case of running staff the overtime will be calculated on "two weekly basis" i.e. between rostered hours and the statutory limit at 1½ times the hourly rate and beyond 108 hrs. at 2 times the hourly rate.

APPENDIX B
PERIODS OF DUTY AND REST OF RUNNING STAFF

281

Credit of time spent on leave for the purpose of overtime.- Rostered hours should be adjusted in proportion to the days of leave/absence. For example say actual rostered hours of a staff eligible for overtime on 2 weekly basis are 102 hours for a period of 10 days and he was on duty during the remaining days of the 2 weekly period and actually put in 38 hrs. of work. During the period he remained on duty (i.e. actual working days and of rest, if any) he should have put

in 102 - $\frac{102 \times 10}{14} = 30$ hrs. of work. Therefore, he is entitled to overtime for $38-30 = 8$ hrs.

In calculating overtime allowance, no separate credit will be given for the days of rest. Adjustment in respect of the period of unauthorised absence subsequently regularised should be made on the same basis as mentioned above.

In case of running staff this will be irrespective of whether they work in running or non-running posts but where the actual duty hours in non-running duties are available in records. Such duty hours will be taken into account where running staff are posted in Stationary posts in which overtime accrues on a daily basis, the concerned employee will earn overtime on two weekly basis.

20. Other Travelling Staff.- The term "Other Travelling staff" applies to Special Ticket Examiners, Conductors, Van porters etc. Such staff should generally be classified as "Continuous".

21. Limitation of hours of works:- The statutory limit for the hours of employment of other running staff classified as "Continuous" has been fixed at 54 hours a week on the average in a month.

22. Waiting at place of duty.- Provisions of para 5 equally apply in the case of other running staff classified as "Continuous".

23. Duty hours:- The duty hours of the other travelling staff include:

- (1) the time from 'Sign on' to 'Sign off' in the case of conductors, TTEs of sleeper coaches, parcel delivery clerks, Van train clerks, Electric fitters, Safai wala on running trains, Mid on Generator staff, ACC Coach attendants, ACC Incharge and 1st Class Coach attendants.
- (2) the time for taking over and making over.

24. Temporary exemption from periodical rest and rostered hours of employment - (a) Whenever it becomes necessary to grant temporary exemptions from grant of periodic rest specified in section 71 D (1) of the Indian Railways Amendment Act, 1956 and rule 6 of the Rules made thereunder subject to the limitation laid down in Rule (8) and to extend the hours of employment specified in section 71-C (1) to 71-(3) in the circumstances specified in section 71-C (4) formal orders should be issued to this effect and register on the form (specimen at annexure) maintained to record the period of such exemptions.

(b) The following officers are authorised to grant temporary exemptions referred to in (a) above :-

1. Chief Personnel Officer on behalf of General Manager (full powers).

APPENDIX B
PERIODS OF DUTY AND REST OF RUNNING STAFF

2. Divisional Railway manager, Deputy Chief Mechanical Engineer (Workshop) (full powers).
3. Divisional Officers, Subordinate in-charge of Stations Sheds or other places of work-Full powers under Section 71-C subject to exception in the notes (1) and (2) below.

Note :- (1) In case of casual leave and recognised leave also power may be delegated provided that in case of subordinates incharge it is delegated only to those who are authorised to grant such leave subject to the conditions of availability of relief.

- (2) In case of pressure of work the powers of exemption under section 71-C (4) can be delegated to senior scale officers only in the circumstances other than those specified below in which case the powers to make exemptions have been delegated to senior subordinates :-

- (i) In cases of sickness; (ii) late running of special trains; (iii) sudden and unauthorised absence of staff and (iv) late arrival or non-arrival of relief.
- (c) In case of accident, actual or threatened, or when urgent work is required to be done to the Railway or to rolling stock or in any emergency such as wash aways, derailments, etc., which could not have been foreseen or prevented, staff must be allowed to remain at their posts without any formal orders of the competent authority for so long as required, even if it is beyond their rostered hours of work.

Note :- In this rule, the corresponding sections of the hour of employment (Amendment) Act 1956 have been substituted for those quoted in item (36) of the Delegation of Powers to Principal Officers etc. with a view to make it upto-date.

Annexure

Register of Extra hours of work-Rule 7 of HOER, 1961

S. No.	Month & Date Overtime Worked	Name & Father's Name	Designation	Classification Intensive/Cont inuous/ Essentially Intermittent	Rate of Pay
1	2	3	4	5	6

Rostered hours.		Actual hours Worked		Extra hours	Reasons for Working extra hours	Compensatory rest granted Date From To	No. of hours for which overtime payable
From	To	From	To				
7		8		9	10	11	12

Reasons for granting temporary exemption under Section 71-C(4) & 71-D	Signature of Subordinate Incharge granting temporary exemption under Rules	Amount of overtime paid and date of payment	Remarks
13	14	15	16

APPENDIX 'C'

COACHING AND GOODS STOCK CODES

Vehicle Codes for Coaching Stock.- The following code letters must be used to designate the various description of coaching stock :-

Nature of Stock	Transportation Codes
Bogie, first class	F
Bogie, first class with servants compartment.	FQ
Bogie, first class with Coupe compartment.	FC
Bogie, first class with Coupe and attendant compartment	FCQ
Bogie, second class (self generating).	GS
Four-wheeled, first and second class .	EFS
Four-wheeled, first class.	EF
Bogie, first and second class.	FS
Bogie, first and second class with attendant compartment.	FSQ
Bogie, first with Coupe, and second class with attendant compartments.	FCSQ.
Bogie, first class air conditioned & first class, luggage & Brake compartment.	ACFLQ.
Bogie, first with coupe air conditioned and first class and attendant compartment.	ACFQ.
Bogie, first class air-conditioned.	FAC.
Bogie, full air conditioned	WAC
Bogie, first class, with coupe and second	FCSC.
Bogie, first and second class.	FS
Bogie, first with coupe, 2 nd , luggage and brake	FCSLR.
Bogie, first with coupe, second	FCS.
Bogie, first with coupe, second, attendant compartment, luggage and brake.	FCSQLR.
Four-wheeled Second Class	ES.
Bogie, Second Class 3 tier sleeping car (Vestibule)	WGSCN.
Bogie, Second Class	S
Bogie, Second Class self-Generating	GS
Bogie, Second Class with permanent ladies compartment.	GSY
Bogie, Prison-van	VJ
Bogie, Lower Class Day cum sleeping car	WGSCG

APPENDIX C COACHING AND GOODS STOCK CODES

FREIGHT AND BRAKE-VANS

Four wheeled freight van or Four wheeled Luggage van	EL
Bogie, freight van or luggage van	L
Four-wheeled, brake van with Luggage compartment	ELR
Bogie, Parcel vans	VP
Four-wheeled Parcel vans	EVP
Four-wheeled fruit vans	EVF
Bogie, luggage and brake van	LR
Bogie, Second Class luggage and brake van	SLR
Bogie, Air Conditioned Parcel Van.	

POSTAL VANS

Bogie, second and full postal van	SPP
Bogie, Second Class and 2/3 postal	PPE
Bogie, Full postal van	PP
Bogie, Second Class and ¾ postal	PPI
Bogie, luggage, brake and full postal van.	LRPP
Bogie, second and quarter postal van	PPQ
Bogie, second and half postal-van	PPH

CARS

Bogie, dining car	CD
Bogie, kitchen car or Annapoorna car.	CK.
Bogie, Inspection car.	CE
Bogie, tourist car (First Class)	CT
Bogie, tourist car (Second class)	CTT
Bogie, State saloon. For Ministers or VIPs	CR

RAILWAY SERVICES

Bogie, Inspection carr: (administrative).	RA.
Bogie, Inspection carr: (Junior administrative).	RB.
Bogie, Subordinate carriage.	RD
Four or six-wheeled Inspection carr: (Senior Assistants).	ERB
Four-wheeled Inspection carr : (Junior Assistant).	ERC
Four-wheeled Subordinate Inspection carr.	ERD
Bogie Cinema cum Exhibition carr	RPCB
Four-wheeled Mobile TXR, van.	ERW
Four-wheeled store-van	ERS
Bogie, store-van	RS
Bogie, Accident tool or relief van	RT
Four-wheeled Accident tool or relief van.	ERT
Four-wheeled travelling charging or dynamo van	ERM
Bogie, travelling charging or dynamo van	RM
Four-wheeled crew rest van	ERR.
Bogie, Medical-van or Mobile dispensary van	RH
Four-wheeled medical van	ERH

APPENDIX C
COACHING AND GOODS STOCK CODES

285

Other Stock

Four-wheeled, horse-box (double)	EHH
Mobile Library van	ERL
Four-wheeled motor van.	EVK
Rail Motor Car, first class.	ZZF

Military Cars

Bogie, Military car vestibule	WM
Bogie, ward-cum-dining car (air-conditioned).	WACMRD
Bogie, kitchen car	MK.
Bogie, kitchen car, Indian troops (vestibule)	WML
Bogie, Dispensary car vestibule.	WMHRA
Bogie, generator car (vestibule).	WMRM
Bogie, officers car.	MF.
Bogie, family car.	MR.
Bogie, air-cond : sick officers car	WACMRA

Note.- 1. "Y" Suffixed to the codes indicating with permanent ladies comp.

"Y" prefixed to the above codes to indicate suburban stock.

"A" prefixed to the above codes to indicate articulated vehicle.

"W" prefixed to the above codes to indicate vestibule vehicles.

"G" prefixed to the codes indicate self-generating equipment.

2. In case two or three letters out of "Y" "A" "W" are to be used, they will be shown in the above order when prefixing or suffixing to codes.
3. The code letters of each description of coaching vehicle are placed at each end of the vehicle on the left bottom end panel or diagonally opposite corners. The staff must refer to these code letters in case of doubt.

APPENDIX C COACHING AND GOODS STOCK CODES

GOODS STOCK CODES

Vehicle Codes for Goods stock:- The following code letters must be used to designate the various designations of goods stock in use :-

Description of stock	Transportation Codes.
OPENS	
1. Four-wheeled, low-sided truck.	KL
2. Bogie low sided truck	BKL
3. Four wheeled, low sided truck with falling ends.	KF
4. Bogie low sides with falling ends	BKF
5. Four wheeled high-sided truck	KC
6. Bogie high sided truck.	BKC
7. Four-wheeled high sided truck.	KCA
8. Bogie high sided truck.	BKCA
9. Four wheeled, platform truck.	KU
10. -do- high-sided special for coal.	KCC
11. -do- Open truck, Military	KM
12. -do- weigh bridge testing.	KV
13. -do- -do- Ballast wagons	KW
14. Bogie Hopper wagons.	KH
15. Bogie truck hopper	BKH
16. Four wheeled, open truck, sugarcane	KK
17. Four wheeled, open truck for sugarcane, firewood and timber traffic.	KKF
	BOXN
18. Bogie Wagon	BOX
19. Bogie Hopper Wagon	BOB
COVEREDS	
20. Four wheeled, covered wagon.	C
21. Four wheeled " " Jute	CJ
22. Bogie, covered wagon	BC
23. Four-wheeled live-stock wagons.	CA
24. Bogie, live-stock wagons	BCA
25. -do- explosive-van	X
26. -do- goods brakevan	V
27. Brake cum-rest Van 4 wheel.	VB
28. Four-wheeled heavy brake van (ghat) goods Brake van.	VH
29. Bogie covered wagon with Tranistion Coupler	BCXT
30. Covered wagon with llight weight	CRT

APPENDIX C
COACHING AND GOODS STOCK CODES

287

Tanks

31. Six-wheeled, creosote oil tank	TC
32. Four-wheeled kerosene oil tank	TK
33. Bogie, kerosene oil tank	BTK
34. Four-wheeled liquid Fuel oil tank, i.e. Heavy oil	TL
35. -do- Molasses tank	TM
36. -do- Petrol oil tank	TP
37. Bogie, petrol tank	BTP
38. Four-wheeled vegetable oil tanks.	TV
39. Bogie, vegetable oil tank	BTV
40. Four-wheeled lubricating oil tank.	TZ
41. -do- Turpentine oil tank.	TT
42. -do- Water tank.	TW
43. Bogie, water tank.	BTW
44. Four-wheeled water tank converted from engine.tender.	TW (L.)
45. Tank acid 4-wheel.	TA
46. Bogie Petrol tank wagon Air Brake	BTPN

Flats

47. Four-wheeled dummy or relief truck	FD.
48. Bogie, dummy or relief Truck.	BFD.
49. Bogie, well wagon.	BFU
50. -do- well wagon. (For military use)	MBFU.
51. Four-wheeled Rail and timber truck	FR
52. Ramp wagon 4 wheel (Military use)	MFR
53. Bogie rail and timber truck	BFR
54. Travelling Cranes.	Crane
55. Bogie Rail wagon Air Brake	BRN

Note :- (i) The code initials of each description of goods stock are marked on the right hand top corner of the vehicle. The staff must refer to these initials in case of doubt.

(ii) If Vacuum fitted goods stock is required, this must be specially mentioned in the stock order the exception of some departmental vehicles, all goods stock is either fitted with train pipe or vacuum braked.

APPENDIX C COACHING AND GOODS STOCK CODES

RAILWAY SERVICES

Mobile Signalling Workshop Van	RC
Camp Coach	RCC
Staff Van with brake	RSV
Engineering-cum-Hydraulic re-railing equipment Van	RTH
Weigh Bridge Fitter's Van	RW
Generating Van	RN
Generator-cum-charging Van	RNM
Water Tank-cum-Power Van	RNW
Bogie Water Tank-cum-Crane crew Van	RRW
Auxiliary Car for Medical Car	RHV
Dynamo Motor Car	RK
Inspection Car	CE
Truck Recording Car	RZ
Mobile Fire Fighting Truck	RJ
Self Propelled Tower Van	RU
Mobile Library	RL
Exhibition Coach	RQ
Track Recording-cum-Research Car	TRRC

MILITARY CARS

Armored	MM
Ambulance	MA
Canteen	MC
Military 1st Class Officers	MP
Medical Headquarters Car	MFA
Ward-cum-Dining Car	MSA
Military Special 1st Class	MS
Military Composite 2 nd Class-cum-brake Van	MGSCNR

CARS

Pantry Car	CB
Pantry Car with Vestibules	WCB
Pantry Car-cum-AC II Chair Car	WCBCZAC
Car, dining, twin set	CDN
Car Kitchen	CL
Par four	CP
Car Car Sleeper 2 tier	CW
Car Sleeper 3 tier	CN
Car Sleeper 3 tier-cum-2 tier	CNW
Car Sleeper 3 tier-cum-sitting	CG
Car Tourist 2nd Class	CTS
Car Tourist 1st Class	CTF

APPENDIX C
COACHING AND GOODS STOCK CODES

289

VANS	
Fish	VE
Poultry	VG
Fruit	VF
Produce Vendors	VF
Insulated	VQ
Insulated Milk Tank	VN
Parcels	VVN
Air Cooled Parcels	VP
Parcel Van-cum-Horse Box	VPAC
Refrigerated Vans	VR
Single Motor Van	VK
Double Motor Van	VU
Bogie Motor-cum-Parcel-Van	VPU
Two tier Motor Van	VW
FLAT WAGONS	
Bogie Rail Heavy	BRH
Bogie Rail Special	BRS
Bogie Military Wagon	BOM
Bogie Container Flat	BFK
HOPPER WAGONS	
Bogie Hopper Iron Ore	BOBC
Bogie Hopper	BOBX
Hopper Special	BOBS
Bogie Open Hopper with central & side discharge arrangement	BOXES
OPEN BOGIE WAGONS	
Open Coal Special (Straight CBC)	BOXC
Open Coal Special (Transition CBC)	BOXT
Open Gondoia	BOI
BRAKE VANS	
Brake Van goods	BVG
Brake Van Match Truck	BVM
Brake Van (Air brake)	BVZC

CORRECTION SLIP REGISTER

Correction Slip		Page	Rule	Date of Receipt	Initial
No.	Date				
VE					
VG					
VF					
VE					
VO					
VN					
VVN					
VP					
VPAC					
VR					
VK					
VJ					
VJU					
VW					
BRH					
BRS					
BOM					
BK					
BOBC					
BOBX					
BOBS					
BOXES					
BOXC					
BOXT					
BOI					
BVG					
BVM					
BVZC					

CORRECTION SLIP REGISTER

Correction Slip		Page	Rule	Date of Receipt	Initial
No.	Date				
VE					First
VG					Produce
VF					First
VF					Produce
VO					Produce
VN					Produce
VVN					Produce
VP					Produce
VPAC					Produce
VR					Produce
VK					Produce
VJ					Produce
VJU					Produce
VW					Produce
BRH					Produce
BRS					Produce
BOM					Produce
BK					Produce
BOBC					Produce
BOBX					Produce
BOBS					Produce
BOXES					Produce
BOXC					Produce
BOXD					Produce
BOXE					Produce
BOXF					Produce
BOXG					Produce
BOXH					Produce
BOXI					Produce
BOXJ					Produce
BOXK					Produce
BOXL					Produce
BOXM					Produce
BOXN					Produce
BOXO					Produce
BOXP					Produce
BOXQ					Produce
BOXR					Produce
BOXS					Produce
BOXT					Produce
BOXU					Produce
BOXV					Produce
BOXW					Produce
BOXX					Produce
BOXY					Produce
BOXZ					Produce