

Chapter 3 – Review of Application Controls

Audit Objective 2

To review the application controls to ensure that proper authorization, completeness, accuracy and validity of transactions, their maintenance and other types of data input were in place.

3.1 Multiple Traffic Advices (TAs) of same train – Non-validation of crew competency

Traffic Advice contains details for which a crew is to be booked like route number, station from, station to, loco number, traction, train ordering time, train number, crew required etc. and is used for booking a crew.

A review of the TAs pertaining to 5 September to 7 December 2014⁴⁴ created by different lobbies over different zones revealed that multiple TAs were created where route number, train ordering date & time, station from and to, service type and train number were same.

Multiple transactions of TAs having similar type of details, as mentioned above, were noticed in respect of three types of duties, viz. Road Learning⁴⁵ (11 ZRs⁴⁶), Working⁴⁷ (12 ZRs⁴⁸) and Spare⁴⁹ (12 ZRs⁵⁰). The number of records of TAs, having similar details as mentioned above, were 27262 for Road Learning type duty (with same number repeated up-to 96 times), 437389 for Working type duty (with same number being repeated up-to 52 times) and 45345 for Spare type duty (with same number repeated up-to 75 times). These figures did not include any cancelled TAs.

A comparison of 11 working type TAs, having similar details as mentioned above, of GZB lobby of NR with Mileage Reports/physical records revealed that Assistant Loco Pilot/Loco Pilot (ALP/LP)/(Train Drivers) were booked against all the 11 multiple TAs although they were not booked for the destination mentioned in the 10 TAs. This indicates that TAs with dummy details were in use for booking crew. Similarly, out of 21 working type TAs, having similar details as mentioned above, of TKD lobby of NR, 18 TAs were processed for booking ALP/LP (Train Drivers) and in all these 18 TAs, loco number and loco type were also same.

⁴⁴(including 14 TAs pertaining to future period from December 2015 to August 2024)

⁴⁵Road Learning is a type of duty where crew is booked for learning route /getting familiar with a specific route of a section.

⁴⁶ CR, NR, NWR, NFR, SR, SCR, SECR, SER, ER, WR

⁴⁷Working is a type of duty where a crew is booked for working/driving a train.

⁴⁸ CR, ECoR, NR, NWR, NFR, SR, SCR, SECR, SER, ER, WR

⁴⁹ Spare is a type of duty where a crew is booked for his movement from one station to another station.

⁵⁰ CR, ECoR, NR, NWR, NFR, SR, SCR, SECR, SER, ER, WR

Booking of loco pilots against multiple TAs between 11-18 times having same train ordering time, same loco number, same destination and same routes is not practicable and this has led to failure in validating crew competency for correct loco, actual route for which crew was booked. It also leads to the conclusion that preparation of TA with wrong details may be one of the reasons for bypassing the validation of crew competency for loco and route and this also resulted in populating the CMS with dummy data leading to generation of false information.

Thus, the above deficiencies indicate that the CMS failed to generate proper and correct Traffic Advices to ensure booking of competent crew. The system allowed populating dummy TA data leading to wastage of manpower and generation of wrong information, thereby compromising the efficiency of CMS operations. This also indicates that TAs are being prepared just because of provision in the system for booking crew and are not being prepared by taking their significance into consideration.

In reply, RB endorsed CRIS remarks that observations have been noted for remedial action.

(Annexure - 31)

3.2 Discrepancies in traffic advice data/Incomplete data

A review of TA data of a few coaching trains at various lobbies⁵¹ of NR, NFR & SER revealed that no uniformity as to train number, destination station, service type etc. was maintained while preparing TAs. Same train was being operated with TAs having different train number/names, destination, type of train/service, different ordering/departure time etc. On some days, a train operated as express train, was operated as passenger/freight train on other days. A few such examples are given in *Appendix XXIII*.

Thus, CMS lacks data validation controls and lack of uniformity/inconsistency in Traffic Advices leads to wrong generation of mileage allowances, populates CMS with wrong data leading to generation of wrong information.

3.3 Multiple acknowledgement of call

After booking a crew for duty, a call is served to the crew intimating him about his duty details and the call is acknowledged by the crew either by accepting or rejecting the same. A review of the call data

⁵¹Train Number 14095(DEE),12954(NZM), 14086 (SSB),12011,12029, 12226(DLI), 12455/12455 Exp (JHL),12428,14006(ANVR), 54412(MTC), 12057, 19326(GZB),54009, 74012 (ROK),12481, 13007 (Jind), 64002, 04032, 54026,04426(PNP),05817UP(APDJ), 15717UP(GHY), 15670(LMG), 05610(KIR), 55908(NTSK), 02503DN(NJP) and 05726DN (NCB), (18409, 18615, 18625 of SER)

pertaining to 11 ZRs⁵² for the period 5 September to 5 December 2014 revealed that 54852 calls made to crew of 11 ZRs were acknowledged between two to 38 times.

Acknowledging same call multiple times indicates that either the earlier acknowledgements of calls were wrongly entered in CMS or the crew did not turn up on time against earlier call, hence, went into non-run and he was again booked on the same TA.

(Annexure - 32)

3.4 Non-capturing of train number

As per review of 25425 Freight/Mail express/Passenger trains TAs of ten ZRs⁵³ it was noticed that TAs of these trains were prepared without capturing their train numbers. Name of five coaching trains over SECR was captured as “/”. Over SCR, 57 types of (each type containing several records) single digit train numbers were fed into the database.

Non-capturing of train number indicates inadequate validation controls to ensure completeness of train data input and this leads to failure in identification of train in which a crew was booked.

3.5 Non-capturing of traction details

While preparing Traffic Advice, details of the traction of the loco i.e. whether the loco is of diesel power or of electric power is captured in the system. However, out of 2091419 transactions pertaining to 14 ZRs⁵⁴ containing details of TAs and booking of crew, in respect of 22531 transactions, traction of the loco for which a crew was booked could not be ascertained as Traction related information was not captured. In respect of 3215 transactions, irrelevant values like Z, NG, Auto etc. were recorded in the Traction field.

Thus, complete and exact details of loco/train could not be ascertained in respect of these trains and this also raises doubt as to whether the crew competency for operating the train was validated.

In reply (September 2015), RB while endorsing CRIS remarks that in case of Guards, no traction is required, stated that necessary instructions have been issued to the zonal railways.

However, audit observations contain cases where traction details of crew members other than Guards are missing. Hence, remedial action in the matter is required.

(Annexure - 33)

⁵² NR, SECR, SCR, CR, ER, ECoR, NFR, WCR, WR, SR, NCR

⁵³ NR=286, SECR=181, ER=10514, WR=9796, CR=1030, NFR=11, NWR=2921, SER=641, SWR=20, WCR=25

⁵⁴ ER, NWR, NR, CR, ECR, ECoR, NFR, SECR, SER, SCR, SWR, WR, SR, NCR

3.6 Non-updation of training, leave and security records of crew in CMS

During audit of records of CMS at selected lobbies, no formal procedure was found to be established for ensuring updating of data pertaining to training, leave/absence etc. in CMS. During test check of records of selected lobbies over different ZRs, differences were found between manual records and CMS records as is evident from the following examples:

- i. Security grading details of crew of NFR (APDJ lobby) pertaining to the period 2005 to 2012, NR (SSB Lobby and Electric lobbies of DLI Division) were different in CMS from those recorded in Loco Inspectors' Hand Book/Manual Records. Manually maintained Periodical Medical Examination/Refresher Training Courses records at SSE/Loco offices of NFR, SER, ECoR, WR selected for Audit, were not found updated in the CMS database on 'real time' basis. Over NWR lobbies, dates of LAP shown in CMS were not matching with leave account. Leave details were found not updated in SWR and NR. Over NWR, in CMS, reason for non-run was wrongly shown as 'TLC' i.e. Traction Loco Controller meant for Electrical Traction which does not exist in NWR.

Delay in data updating leads to wrong calculation of allowances, depicting wrong information and reflects the deficiencies in internal control, monitoring and rectification mechanism.

In reply (September 2015), RB stated that necessary instructions have been issued to the zonal railways.

3.7 Non-capturing of correct data for cancellation of TA

System allows cancellation of TAs necessitated due to various reasons. However, improper/meaningless reasons for cancellation of TA were captured. As per the TA Cancellation Report of GZB, Jind, Panipat, NZM, MTC lobbies of NR, in majority of the cases of TA cancellation/put-back, proper reasons were not recorded as irrelevant entries like single digit alphabet/numerical K, E, Y etc. were used which did not convey any meaningful information.

Over SECR, SER & SCR, in 372⁵⁵ cases reasons found for TA cancellation did not convey any meaningful information. The data analysis over ECoR and NCR also revealed that in 3230 cases of TA cancellation⁵⁶, reasons for cancellation of TA were not available.

In reply (September 2015), RB stated that necessary instructions have been issued to the zonal railways.

⁵⁵ SECR=1, SER=24, SCR=347

⁵⁶ ECoR=3219, NCR=11

3.8 Improper capturing of reasons for changes in sign on/off time of crew

There is a provision in the CMS to modify values in crew sign on/off field and Rest Given field and the reasons for modifications are also recorded in the database. A review of transactions data of 9,41,224 records relating to modification done in the above fields by 10 ZRs⁵⁷ between November 2013 to December 2014 pertaining to various duration revealed that in all the cases, remarks recorded for changes in the Crew Sign on field were 'Sign On Time Changed By User' which did not convey actual reasons for modification. In respect of changes made in Crew Sign off values and Rest given field values, remarks column in almost all/majority of the cases were either blank or reasons recorded irrelevant entries like,/, A, X, '+' etc. which did not convey any meaningful information.

Lack of adequate controls to enforce capturing of proper remarks/reasons for alteration in date and time field deprived management of becoming aware of actual reasons for altering critical data for proper monitoring and for taking remedial action in the matter.

In reply (September 2015), RB stated that necessary instructions have been issued to the zonal railways.

3.9 Review of 'Lobby Utilization Report' data

CMS generates 'Lobby Utilization Report' containing breakup of the hours utilized by crew on different types of duties like running duties, rest, leave, training, stationery duties etc. during a particular period of time.

Analysis of data pertaining to utilization of hours by the crew for different periods was done over NR, ER, SR, NCR and SECR for two periods⁵⁸ in respect of 13880⁵⁹ and 13905⁶⁰ crew respectively. It was noticed that in the first period each crew had an available time of 744 hours whereas in the second period each crew had an available time of 720 hours.

⁵⁷NWR=15824, ECR=16628, CR=93230, NR=106399, SECR=171699, ER=159184, NFR=11841, SCR=333155, SER=20509, SWR=13665

⁵⁸NR=Ist period = 15-10-2014 to 14-11-2014, 2nd period = 08-09-2014 to 07-10-2014
ER=Ist Period = 06-10-2014 to 05-11-2014, 2nd period = 06-11-2014 to 05-12-2014
SECR=Ist period= 11-10-2014 to 10-11-2014, 2nd period = 11-09-2014 to 10-10-2014
SR = Ist period =01-10-2014 to 31-10-2014 2nd period = 01-09-2014 to 30-09-2014
NCR=Ist Period = 05-10-2014 to 04-11-2014 2nd Period = 05-09-2014 to 04-09-2014

⁵⁹NR=3757, ER=811, SECR=3921, SR=1859, NCR=3532 (Total=13880)

⁶⁰NR=3731, ER=820 and SECR=3893, SR=1852, NCR=3609 (Total=13905)

Period	No. of hours Available	No. of Crew	Observations
I st Period	744	196	Details of utilization in the range of 745-863 hours
		54	Depicted details of utilization in the range of 616-736 hours
II nd Period	720	800	Details of utilization in the range of 723-976 hours
		31	Details utilization in the range of 544-719 hours.

Depiction of excess utilization was due to the fact that some of the sign on/off (crew movement) transactions were included in the report/data multiple times and depiction of less utilization was due to the fact that complete movements of crew were not captured.

Further, as per CMS Lobby Utilization Reports data of NR, ER, SECR, SR and NCR for the first period, 1237 crew and for the second period 1205 crew of NR, ER, SECR and NCR did not perform any running duties and were on rest for the whole period. However, as per the test check of records at TKD lobby of NR, it was informed to Audit (May 2015) that majority of the crew members who had zero (0) duty hours and 744/720 rest hours were either performing duties at location/lobbies other than TKD or were on long leave/absent but Lobby Utilization Report showed them under Rest.

In the absence of reliable Lobby Utilization Report, management was denied an opportunity to control and deploy crew in the most productive manner.

(Annexure - 34)

3.10 Inconsistency in output reports

A review of reports pertaining to 'Crew Due for Periodical Rest', 'Crew Training History', 'Crew Training Particular', 'Breach of Rest Details' and 'Crew Mileage Summary' revealed inconsistencies.

As per column 'No PR in Last seven days' of Crew Due for Periodical Rest' report, the crew had not taken any rest during the last seven days from the date of report but as per 'Last PR Hours' column of the same report, the crew had taken the rest.

In case of 'Crew Training History' & 'Crew Training Particular', both the reports generated at the same time indicated different due dates of training for same crew.

In case of 'Breach of Rest Details' report and 'Crew Mileage Summary Report', both these reports depicted different period of breach of rest.(*Appendix - XXIV*).

The above deficiencies indicate that the CMS failed to generate correct MIS which could lead to wrong decision making by the Railway Administration. Thus, correct generation of various MIS reports should be ensured to facilitate Railway Administration in proper monitoring and decision making process.

3.11 Non-usage/Incomplete usage of 'Abnormality Module'

The CMS kiosks used for sign on and sign off purpose has feature/facility to enter the abnormalities noticed by the crew at the time of sign off. Apart from that Lobby officials can also enter abnormality details in CMS. When the abnormality is entered, the system immediately sends SMSs to all the concerned users configured in the system about the abnormality noticed. The status of the abnormality remains as Pending in CMS. The operator has the option of setting the status as Complete by selecting the option YS in CMS and also by giving the reasons/ remarks about the action taken in the case.

Over CR, NR, SER, SCR, SWR, WR it was noticed that crew were not actively using this facility and instead they recorded the abnormalities in the manual register kept in the lobby which was then communicated by the Lobby officials to Control office. A test check of records at DLI, GZB and PNP lobbies of NR revealed that the abnormality communicated by crew was also not regularly entered / updated in the CMS. Instead, Divisional Control office at DLI daily collected Abnormality Position from different lobbies. Over SCR, a separate Access based programme viz. 'Centralised Control Statistics' was in use for the purpose.

Over CR, the lobby which had reported the abnormality did not get the feedback about the action taken or when the reported fault was set right. Hence, in most of the cases, the status of most of the abnormalities entered in CMS remained pending. Moreover, setting the status of an abnormality as complete is a supervisory function and needs to be performed by a Supervisor. Since the outsourced data entry operators have also been given supervisory privileges, the security aspect of this important function is compromised thereby safe operations may be adversely affected.

It was further noticed that Loco Inspectors conduct footplate inspections and may notice abnormalities. However, CMS had no provision to enter abnormalities noticed by Loco Inspectors (CR, NR, SECR).

3.12 Non-usage of Link

There is a provision for inclusion of crew links⁶¹ in the system and book passenger and mail/express crews. However, this module was not found to be actively in use as the crew links had not been uploaded in the system of almost all the lobbies test checked over 12 ZRs⁶².

Non-usage of links results in manual preparation of Traffic Advices in CMS and defeats the purpose of developing Link module.

⁶¹Link are created for Mail Express/Passenger/Rajdhani/High speed trains drivers, for daily/weekly, multi-weekly days, contains details about train arrival/departure time, crew reported time for duty, periodical/long rest and are used for booking crew by assigning them to a specific link.

⁶² CR, ECR, NCR, NFR, NER, SECR, SR, SCR, SER, SWR, WCR, WR