

## Chapter 4

### Rolling Stock

At Railway Board level, Member Rolling Stock is overall in-charge of Mechanical Engineering Department, including Workshops and Production Units (other than locomotives). The works related to EMU/MEMU, and electrical maintenance of all coaching stock is also the responsibility of the Member Rolling Stock.

At Zonal level, the Chief Mechanical Engineer (CME) is responsible for overall supervision and maintenance of all coaches, freight stock etc. Chief Workshop Engineer (CWE) is overall in-charge of the functioning of workshops dealing with maintenance of rolling stock and related items. Production Units are managed independently by General Managers reporting to Member Rolling Stock at Railway Board.

The total expenditure of the Department during the year 2015-16 was ₹ 37144.96 crore. During the year, apart from regular audit of vouchers and tenders, 528 offices of the Department were inspected.

This chapter includes one review on 'Management of linen in Indian Railways'. In this review Audit assessed adequacy and effectiveness of procurement, handling, storage of linen (bedsheets, blankets, pillow, pillow cover) along with effectiveness of mechanism of washing and distribution of linen. This chapter also includes a local review on 'Working of Coach Rehabilitation Workshop located at Bhopal.

In addition, this chapter includes five individual paragraphs highlighting the issues such as use of wagons after POH for storage of scrap instead of traffic; injudicious procurement of material for manufacturing coaches; deficient planning in procurement and non-installation of machines etc.

## 4.1 Management of Linen in Indian Railways

### 4.1.1 Introduction

Indian Railways (IR), with network of 58825<sup>130</sup> route kilometres, runs 3362<sup>131</sup> Mail/Express trains daily. The coaching stock of IR consist of 390 Air Conditioned First Class coaches (7500 berths), 2375 Air Conditioned Sleeper (2-tier) coaches (112350 berths) and 5302 Air Conditioned 3-Tier Sleeper coaches (345091 berths)<sup>132</sup>. A robust system for procurement, washing and distribution of linen is therefore necessary to provide clean, hygienic, well ironed and good quality linen to all passengers travelling in AC Classes.<sup>133</sup> In order to achieve this objective, Railway Board Policy Circular of 1999, laid down the following strategies:

- i. Procurement of good quality linen
- ii. Modern and exclusive mechanised washing facility by involving expertise from private sector
- iii. Eco-friendly packaging of sets of bed rolls for passengers
- iv. Development of proper storage facility at stations and on trains; and
- v. Improved logistics for storing, transportation and loading and unloading, etc.

### Background

Minister of Railways (MR) in the budget speech<sup>134</sup> for the year 2009-10 declared that Indian Railways would take up improved linen management to bring about a significantly improved quality of washing through modern mechanized automated laundries. To streamline management of linen, Railway Board entrusted (December 2009) the work of washing, storage, supply and distribution of linen kits in trains to the Mechanical (Carriage & Wagon) Department of the railways as a single window agency. Mechanical Department were instructed (2012) to initiate action for setting up automated/mechanised laundries for washing/cleaning of linen through BOOT (Build, Own, Operate and Transfer) model through professional agencies having adequate experience and expertise in operating automated/mechanised laundries capable to handle the workloads of the respective coaching depots. Railway Board issued (January 2010) further comprehensive guidelines covering areas of management of linen in Store Depots, Stock Verification, issue of linen, test check on receipt of linen, inspection of washed linen, inspection of plant and machinery of the washing contractor, inventory of linen, life of linen kits, condemnation of linen etc.

### Organisational Structure

The organisation chart relating to linen management is shown below:

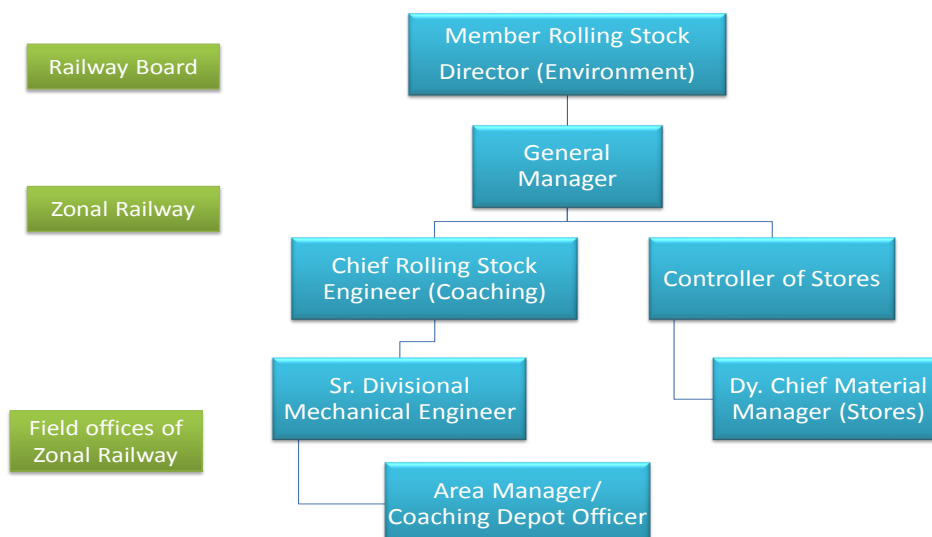
<sup>130</sup> Broad Gauge Route-Source : *Indian Railway Year Book 2014-15*

<sup>131</sup> Broad Gauge Route-Source : *Indian Railway Year Book 2014-15 (Table VI Passenger Business)*

<sup>132</sup> Broad Gauge Stock - Source: *Indian Railway Annual Statistical Statement Book 2014-15 (Statement 10)*

<sup>133</sup> Railway Board's Policy Circular 19 issued vide No. 97/TG-V/17/P dated 7.1999

<sup>134</sup> Paragraph 15 of Budget Speech 2009-10



At the Railway Board level, the overall monitoring of Linen Management is done by Environment Directorate, under Member (Rolling Stock). At the Zonal level, procurement of stores is done by Controller of Stores (COS) who is assisted by Dy. COS and Assistant COS. Distribution of linen in trains is supervised by Mechanical Department (to some extent by Electrical Department on some ZRs). At the field level, the day to day functioning of the linen management is the joint responsibility of Area Manager/Coaching Depot Officer and Senior Divisional Mechanical Engineer.

### Audit Scope and Objectives

The Theme Based Audit covered a period of three years from 2013-14 to 2015-16 and included management of linen provided in the AC coaches in trains. Linen provided to the Railway Hospitals and Railway Rest House have not been covered in the review. The study was taken up with a view

1. To assess the adequacy and effectiveness of procurement, handling and storage of linen; and
2. To review functioning of mechanised laundries and assess the effectiveness of mechanism of washing and distribution of linen.

### Audit Criteria

The following were the audit criteria for the study:

- Railway Board's Policy Circular 19 of 1999
- MR budget speech for the year 2009-10
- Introduction of new Accounting head for booking expenditure on Linen Management

- Railway Board's circular on 'Setting up of mechanised laundry for linen washing on Build, Own, Operate, Transfer (BOOT) model<sup>135</sup>.
- Railway Board's instruction<sup>136</sup> entrusting the Mechanical Department (C&W) as a single window agency.
- Other orders and circulars issued by the Railway Board and Zonal Railways from time to time.

### Audit Methodology and Sample

The scope of the audit included examination of records pertaining to assessment and procurement of linen, management of linen at Stores and Coaching depot, setting up and working of mechanised laundries, washing and distribution of linen, quality check of washed linen, inspection of linen by the various authorities and passenger complaint redressal mechanism in IR.

Records relating to guidelines/instructions issued by the Railway Board and their implementation in Zonal Railways were checked in audit during June 2016 to September 2016. Records of Stores, Mechanical, Commercial, Civil, and Electrical Engineering departments at Zonal Railway Headquarter and the Divisional Offices were examined to ascertain the initiatives and performance towards improving quality of washed linen. Joint inspection was conducted with the railway officials for verification of situation on ground. Feedback was also obtained from passengers through limited passenger survey conducted in Mail/Express trains including Rajdhani, Duranto, Garib Rath Express trains.

Entry conferences were held at Zonal Railways level to discuss the audit objectives, scope and methodology. Exit conferences were held at Zonal Railways and Railway Board level to discuss audit findings and recommendations. The response of Railways have suitably incorporated in the report.

The criteria for selection of sample and the sample selected are detailed below:

<b>S. no</b>	<b>Sample description</b>	<b>Total population</b>	<b>Criteria for selection</b>	<b>Sample size selected</b>
<b>1.</b>	General Stores Depot/ Stores Depot	32	One/two Major depots where linen procured is received in each zone	26
<b>2.</b>	Coaching depots (which supply linen to trains)	117	Two major depots in each zone having linen service according to priority in numbers of train services	33
<b>3.</b>	Mechanised laundries	32	Two Departmental Mechanised Laundry in each zone according to washing capacity	26
<b>4.</b>	Procurement contracts	619	50 <i>per cent</i> subject to maximum ten covering all items of linen in each zone during the review period	191

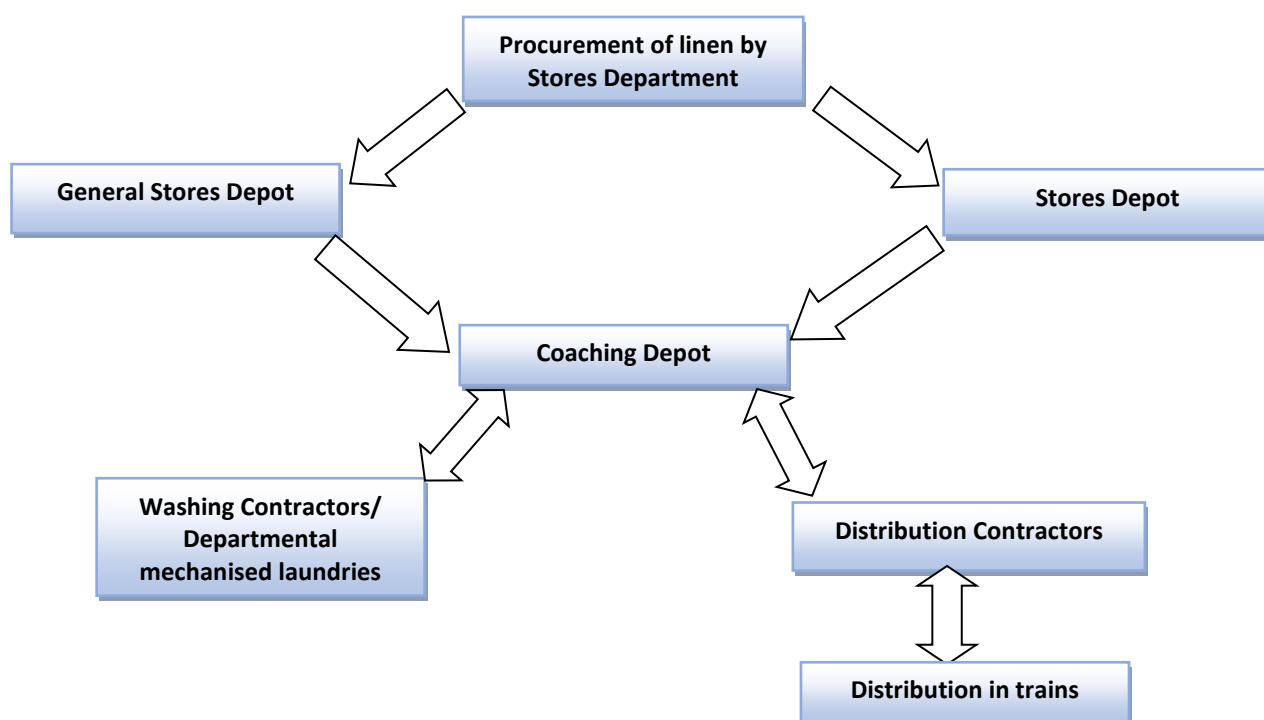
<sup>135</sup> Railway Board's letter No. 2009/M(C)/165/6 dated 14.1.2011 and 04.07.2012

<sup>136</sup> Railway Board's letter No. 2009/M(C)/165/6 dated 17.12.2009

Table 4.1 – Criteria for sample selection and sample selected

S. no	Sample description	Total population	Criteria for selection	Sample size selected
5.	Washing contracts	118	50 <i>per cent</i> subject to maximum four each of the selected coaching depot during the review period	76
6.	Distribution contracts	84	50 <i>per cent</i> subject to maximum four each of the selected coaching depot during the review period	65
7.	Passenger survey	--	One Rajdhani One Durgam One Garib Rath Three Mail and Express trains	79 trains and 25 passengers per train

The following flow chart depicts the important locations and responsibility points in management of linen in Indian Railways:



Railway Board, in November 2010, to facilitate separate budgeting and accounting of expenditure on linen related activities introduced following Accounts heads under Demand No.8-Abstract 'F' –Operating Expenses –Rolling Stock and Equipment in Appendix I, of the Classification of Revenue Expenditure of Indian Railway Finance Code Vol.II (Reprint Edition 1996):

Minor head	Sub-head	Detailed heads
500-Carriages and Wagons (existing)	590-Cost and maintenance of linen	591-Cost of Linen 592-Washing & Other expenses on linen

All Zonal Railways except two (ECR and NR) started booking of expenditure on linen accordingly by 2015-16. However, due to delayed implementation of booking of expenditure on appropriate heads actual expenditure on linen management could not be ensured.

### Audit findings

**Audit Objective 1. To assess the adequacy and effectiveness of procurement, handling and storage of linen.**

#### 4.1.2 Assessment of requirement and procurement of linen

Availability of linen supplied to passengers on board depends upon replacement of old and condemned linen with new linen. Railway Board instructed (January 2010) that railways should make proper assessment of daily requirements and make fresh procurements, if required. There should be enough buffer stock so that train services are not affected and it should be able to take care of exigencies like running of special trains and augmentation of train lengths at short notices.

Railway Board in the Policy circular No.19 of 1999 fixed the items of bedroll kit and standard to be provided to 1<sup>st</sup> AC, 2<sup>nd</sup> AC and 3<sup>rd</sup> AC passengers - One bed roll kit containing two bed sheets, one face towel, one blanket and one pillow cover with pillow, bath towel (for 1st AC only). The quality<sup>137</sup> of linen varies in 1st AC and 2<sup>nd</sup> AC and 3<sup>rd</sup> AC. All the polyvastra items are to be procured from Khadi and Village Industries Commission (KVIC) and rest from Association of Corporations and Apex Societies of Handlooms (ACASH).

As per policy of Government of India circulated by Ministry of Commerce, Department of Supply<sup>138</sup>, purchase is to be made from ACASH under Ministry of Textiles on single tender at prices fixed by Ministry of Textiles. Similarly, purchase from KVIC under Ministry of MSME<sup>139</sup> is also to be made on Single Tender basis at price fixed by KVIC. Accordingly, Railway Board decided<sup>140</sup> (October 2014) to dispense with the need to go for formalities of tender committee for placement of order on KVIC, ACASH and the purchase power

#### <sup>137</sup> For 1<sup>st</sup> AC

- (i) Superior soft woollen blanket from reputed manufacture(One)
- (ii) High density polyurethane foam pillow of 36X50 cm. size(One)
- (iii) Polyvastra Bedsheet size 140X229 cm (white) two per passenger
- (iv) Bath towel of terry towel quality with size 60X120 cm (white) from reputed manufacture(One)
- (v) Face towel of terry towel quality with size 40X60 cm (white) from reputed manufacture
- (vi) Pillow Cover 69X46 cm

#### For 2<sup>nd</sup> AC and 3<sup>rd</sup> AC

- (i) Blanket of reputed manufacturer (one)
- (ii) Washable foam pillow 30X45 cm size (one)
- (iii) Bed sheets from reputed manufacturer size 140X229 cm (white) two per passenger. Polyvastra bed sheets for Ac-2 Tier of Rajdhani Trains
- (iv) Face towel from reputed manufacturer size 40X60 cm (white)
- (v) Pillow Cover 50X36 cm

<sup>138</sup>Letter No. P.III/10(4)/7 dated 28.7.89

<sup>139</sup>Ministry of Micro Small and Medium Enterprises

<sup>140</sup>Railway Board's letter No. 2009/RS9G/113/1 dated 29.10.2014

rests on the authority up to their normal acceptance power of purchase without going into the formalities of Tender Committee examination.

During the check of records of General Stores depots of various Zonal Railways for the period 2013-14 to 2015-16, it was seen that inventory is classified in Indian Railways at A, B and C category based on money value of utilization of inventory in the preceding year. The items are identified with a unique PL number. A periodical and regular review of actual consumption, the forecast consumption, revision of limits, rephrasing of deliveries for A, B and C category items are required to be done monthly by COS, half-yearly by Dy. COS and annually by Assistant COS respectively. Accordingly, for linen items, Zonal Railway Administrations decide the categorization and review period for Category A, B and C items. A minimum and maximum limit should also be fixed for the quantity of each 'stock item' of stores in a depot at any time below or above which the balances should not ordinarily be allowed to go. The minimum stock limit should be fixed as low as possible depending upon the prevailing market conditions and the proximity of the depot to the normal source of supply so as to avoid under stocking. Similarly, the maximum stock limit should be fixed in such a way so that the unnecessary locking up of capital, risk of deterioration of stores, extra storage and protection arrangement, accumulation of surplus by unnecessary advance purchase of stores could be avoided. It was observed that the various Zonal Railways after undertaking a review of the linen items keep buffer stocks, which varied from zone to zone, and decide on the re-order quantity during designated months of the year (laid down separately for various linen items depending upon the same being A, B or C category item). Procurement process is being initiated for the stock required as per Estimated Annual Consumption (EAC) (for the intervening period between the demand generation and for the period under agreement) which require almost 6-7 months and purchase order is being placed for the ensuing year. No system of automatic demand generation by the system whenever stock closes to/ goes down from the buffer stock limit and commencement of procurement process has come to notice.

Information of closing stocks in GSD as on 31 March 2016 revealed that while in respect of some of the linen items in selected GSDs, the stock in hand was less than one month's requirement, in respect of others it was more than 12 month's requirement (as given in table below). Maintaining appropriate stock levels helps in better inventory management and issue stock to users, viz. various coaching depots as per their requirements.

**Table 4.2 – As on 31 March 2016, stock in hand of various linen items more than a years' requirement of EAC in GSD**

<b>Zonal Railway</b>	<b>Item(s) of linen</b>	<b>Estimated Annual Consumption (EAC) (in nos.)</b>	<b>Closing balance as on 31st March 2016</b>	<b>Closing stock in terms of months' requirement</b>
NCR/ Kanpur Central	Towel hand khadi bleached hucka bucka	14000	15561	13
NCR/ Jhansi	Pillow Cover (Polyvastra)	240	503	25

**Table 4.2 – As on 31 March 2016, stock in hand of various linen items more than a years' requirement of EAC in GSD**

<b>Zonal Railway</b>	<b>Item(s) of linen</b>	<b>Estimated Annual Consumption (EAC) (in nos.)</b>	<b>Closing balance as on 31st March 2016</b>	<b>Closing stock in terms of months' requirement</b>
NER	Towel Turkish bath	916	1234	16
NER	Polyester staple Fibre Pillow (DP-II)(2nd AC)	7328	9654	16
NWR/Jodhpur	Washable Pillow (DP-I)(1st AC)	4108	4238	12
NWR/Ajmer	Polyester staple Fibre Pillow (DP-II)(2nd AC)	10260	14436	17
SCR	Face Towel	10000	12269	15
SCR	Polyester staple Fibre Pillow (DP-II)(2nd AC)	20000	21522	13
SER/Hatia	Bed Sheet (Polyvastra)	600	665	13
SECR/Durg	Bed Sheet (Polyvastra)	5	14	34
SECR/Durg	Pillow Cover (Polyvastra)	8	101	152
SECR/Durg	Washable Pillow (DP-I)(1st AC)	586	1965	40
SWR/Hubli	Bed Sheet (Polyvastra)	3130	3189	12
SWR/Hubli	Pillow Cover (Big size)	1320	4235	39
SWR/Mysore	Polyester staple Fibre Pillow (DP-II) (2nd AC)	360	475	16

- In NER, Turkish bath towels (for 1<sup>st</sup>AC) were procured in excess of the estimated annual consumption of 916 resulting in higher level of stock of 1234 (March 2016). The items were lying in stock for 31 months, as the available stock was enough to cater to requirements of linen for a period of 7 months.
- In NFR, SECR, SR and NWR, no 'polyvastra' bed sheet were procured and provided to the respective category of passengers during the period under review. Bed roll kits distributed in 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> AC coaches were of the same quality. No bath towels were distributed to the 1<sup>st</sup> class AC Coach passengers as per norms.

Annual requirement of various linen items was not being assessed properly leading to stocking of significantly high or low levels of stock. Maintaining stocks much below the buffer level led to continual usage of linen even after their life cycle was over, thereby effecting quality. On the other hand, maintaining significantly high level of stocks would enhance risk of quality deterioration, while in storage.

During Exit Conference, Railways stated (February 2017) that in 2013-14 ACASH was not able to supply linen as per requirement. It was further stated that the position improved subsequently. Audit, however, stated that the position of under stocking and over stocking reflected in this para is as on 31 March 2016.



### 4.1.3 Storage and handling of linen

#### 4.1.3.1 At General Stores Depot

New linen purchased is received at the General Stores Depot (GSDs) of various Zonal Railways, from where the same is issued to various Coaching Depots on the basis of their requirements. On receipt of the new linen at Store Depot, the Railway Board prescribed (January 2010) some checks viz. marking of manufacturer's name, month & year of manufacturing, batch number/ lot number on the linen items including quarterly stock verification. It was also prescribed that at least five *per cent* of new supply received from the stores depot should be inspected by Senior Supervisor/Senior Section Engineer (SSE) of Mechanical Department.

In joint inspections at GSDs during June 2016 to September 2016, it was observed that

- There was lack of proper storage facility in the six<sup>141</sup> GSDs of four Zonal Railways. Storing facilities such as racks were not available and bundles were mostly kept on floor.
- Sealed bundles were not marked with batch number, manufacturers' name along with size and year of manufacture in nine<sup>142</sup> GSDs in eight Zonal Railways.
- In WR new linen was stored in a haphazard manner exposed to dust and dirt in GSDs at Mahalakshmi and Sabarmati.



Fig 2: Improper stacking resulting damages to Linen at Mahalakshmi General Stores Depot, Western Railway (3 August 2016)

- Quarterly Departmental Stock Verification had not been carried out in the 22<sup>143</sup> GSDs of 15 Zonal Railways during the period of review.

<sup>141</sup>Mettuguda-SCR, Mancheswar-ECOR, Mahalakshmi and Sabarmati –WR, Kharagpur and Hatia-SER

<sup>142</sup>Mancheswar-ECOR, Samastipur-ECR, Howrah-ER, Pandu-NFR, Sabarmati-WR, Raipur-SECR, Kharagpur and Hatia-SER, Perambur-SR

<sup>143</sup>ECOR (GSD/Mancheswar), ECR (GSD/Samastipur), ER (GSD/Howrah), NCR (GSD/Jhansi & Kanpur), NER (SD/Gorakhpur), NFR (GSD/Pandu), NR (GSD/Alambagh-Lucknow, GSD/shakurbasti), NWR (GSD/Ajmer & Jaipur), SCR (GSD/Mettuguda), SECR (GSD/Raipur and SD/Bilaspur), SER (GSD/Kharagpur, Hatia & TATA), SR (GSD/Perambur), SWR (GSD/Hubli), WCR (GSD/Bhopal) WR(GSD/Mahalakshmi and Sabarmati)

- Tags indicating name of manufacturer, month and year of manufacturing were not provided on each pillow cover and hand towel in five<sup>144</sup> GSDs in five Zonal Railways.
- In four<sup>145</sup> Zonal Railways, check for quality in each lot for dimensions, colour, feel and workmanship etc., was not done by Sr. Supervisor /SSE of Mechanical department in respect of polyester Staple fiber pillow, Towel Turkish bath, Pillow covers and Bed sheets (Polyvastra) as seen during joint inspections during June 2016 to September 2016.
- In 11<sup>146</sup> GSDs in nine Zonal Railways, five *per cent* check of new supply of linen received in the Depot had not been undertaken by SSE of Mechanical Department during the period of review.
- Where five *per cent* check was done, it was noticed that in seven GSDs in six Zonal Railways, 4100 bed sheets<sup>147</sup>, 4113 pillows<sup>148</sup> and 14553 woollen blankets<sup>149</sup> valuing ₹ 64.94 lakh had been rejected during the review period for reasons such as received in wet condition, damaged condition, failed lab test, etc. These were yet to be replaced by the supplier (March 2016). In one such case in SCR, 20,000 bed sheets were rejected but rejection was later withdrawn due to non-availability of adequate stock in GSD, Mettuguda.
- In NER and SECR, it was observed that the quality of blanket was not good, as the borders of the blankets supplied by ACASH were not stitched properly and they were being stitched again at Coaching Depot for their longevity by deploying departmental staff as seen during joint inspection during June 2016 to September 2016.
- At GSD/Kharagpur', bundles of face towels were kept in a room with broken windows susceptible to damage due to seepage of rainwater.
- In NER, it was observed that the stock at General Stores Depot had already completed 2 to 7 months life from the date of its manufacture before it was received at GSD/Gorakhpur. In SER, bed sheets (life cycle of 12 months) and pillow covers (life cycle of 9 months) remained unutilised



Fig. 3: Storage of linen in a room with broken window in GSD, Kharagpur, South Eastern Railway (31 August 2016)

<sup>144</sup>SECR (GSD/Raipur), NFR (GSD/Pandu), NR (GSD/Shakurbasti), NCR (GSD/Jhansi), WR (GSD/Sabarmati)

<sup>145</sup>Mahalaxmi and Sabarmati-WR, Mettuguda-SCR, Shakurbasti-NR, Kahargpur, Hatia and Tata-SER

<sup>146</sup>Perumber-SR,Bhopal- WCR ,Gorakhpur- NER ,Kanpur- NCR, Pandu- NFR, Shakurbasti- NR, Jodhpur-NWR , Mettuguda-SCR, Kharagpur, Hatia & Tata-SER

<sup>147</sup>Currey Road-CR, Bilaspur-SECR, Sabarmati-WR

<sup>148</sup> Mettuguda-SCR

<sup>149</sup>Mahalaxmi & Sabarmati-WR, Hubli-SWR

for seven months and similarly face towels (life cycle of 9 months) remained unutilised for five months at General Stores Depot. This indicated that lot received first were not issued first.

Further, stock verification of stores by departmental officers holding the stores (Mechanical Department in case of linen) as well as Accounts Department has been prescribed in the rules<sup>150</sup>. Any shortage and excess of stores detected during verification should be adjusted following the prescribed procedure. It was observed that during 2013-14 to 2015-16, Departmental Stock Verification had not been carried out in nine<sup>151</sup> General Stores Depot in six Zonal Railways. In WCR, no stock verification of General Stores Depot, Bhopal was carried out by Account Department in 2015-16.

Thus, provision of inspection of a prescribed percentage of new supply was not being used effectively, to ensure, quality of the linen received. The storage space at General Store Depot was not adequate and items were not stored in proper environment. The storage was also not done in an organised manner and First in First out (FIFO) methodology was not followed for issue. As a result, linen stock was kept for long periods in unsuitable conditions, which had an impact on their quality of cleanliness and hygiene.

During Exit Conference, Railways agreed (February 2017) that the storage of linen needed attention.

#### 4.1.3.2 Storage, issue and condemnation of linen in Coaching Depot

Coaching Depots have the responsibility to hold stock of linen consisting of fresh stock in stores, handover used and dirty linen to the washing contractor and keep stock of washed linen for distribution in trains. There are no guidelines from the Railway Board or Zonal Railways regarding optimal stock of numbers of bedroll kits to be provided in passenger trains with air conditioned coaches. The Coaching Depot fixes the number of bedroll kits to be provided in trains based on their own past experience on number of AC coaches, distance covered, *enroute* stoppages, passengers boarding and de-boarding *enroute* etc. To avoid any shortages and replace bedrolls in case of complaints in the train, extra bedroll kits are provided. As the Coaching Depots have to accordingly hold higher stock of linen, this has an impact on the storage space in the Coaching Depots as well as trains.



*Fig 4 Condemned linen and running stock stored at the same place at Hatia, South Eastern Railway (22 August 2016)*

<sup>150</sup> Chapter XIII & XXXII of Indian Railway Code for the Stores Department (Volume II)

<sup>151</sup>Perambur-SR, Pandu- NFR, Jhanshi and Kanpur- NCR, Secunnderabad- SCR, Howrah-ER, Santragachi, Hatia and Tata-SER

### (a) Storage of linen in Coaching Depots

Review of records at 33 Coaching Depots during June 2016 to September 2016 brought out the following:

- Condemned linen and running stocks were stored at the same place at Coaching Depot, Hatia leaving wide scope for use of condemned linen and condemnation of usable linen.
- In Coaching Depot Basin Bridge & Thiruvananthapuram in SR, proper Stock Register had not been maintained for linen. At Basin Bridge, entire quantity of linen received from GSD has been handed over to the contractor without maintaining stock on hand. Further, pillow covers were being stitched from the used bed sheets to tide over the shortage at Basin Bridge.



Fig 5: Bed rolls were stored in Office of SSE/Coaching Depot, Durg/South East Central Railway (27 September 2016)

- There was lack of proper storage facility such as racks etc. in Bangalore City Coaching Depot (SWR) and Durg Coaching Depot (SECR), Santragachi (SER).
- In NR, short quantity of pillow covers were loaded in the eight<sup>152</sup> trains. In a few cases, used pillow covers were also

provided to the passengers.

### (b) Availability of stock in Coaching Depots

Data in respect of linen kits<sup>153</sup> issued to trains by selected 33 Coaching Depots in various Zonal Railways was collected for the year 2015-16. It was seen that as on 31 March 2016, excess provisions<sup>154</sup> of linen kits over and above the requirements of to and fro journeys were being carried in trains, as can be seen from the data below:

<sup>152</sup>Pillow cover (ACASH-II AC) – Train no.12402 (Magadh Express), 12205 (Nanda Devi Express), 12445 (Uttar Sampark Kranti Express), 22416 (Andhra Pradesh SF Express) and Pillow cover (polyvastra) – Train no. 12425 (New Delhi Jammu Tawi Rajdhani Express), 12442 (New Delhi Bilaspur Rajdhani Express), 12440 (New Delhi Ranchi Rajdhani Express), 12454 (New Delhi Ranchi Rajdhani Express)

<sup>153</sup>Two packets of linen, one blanket and a pillow were used for to and fro journey of a train

<sup>154</sup> Excess Bed sheets = No. of linen provided - 2 (2 for each Passenger) X 2 Journeys (for to and fro) X No. of berths  
Excess Pillow Cover/ Towel = No. of linen provided - 1 (1 for each Passenger) X 2 Journeys (for to and fro) X No. of berths

Excess Blanket/ Pillow = No. of linen provided - No. of berths

Table 4.3–Percentage of excess linen carried in trains over and above the requirement

Zonal Railway	Bed Sheet (ACASH)	Bed Sheet (Polyvastra)	Pillow Cover (ACASH-IIAC)	Pillow Cover (Polyvastra)	Face Towel	Towel Turkish bath	Woollen Blanket	Polyester Staple Fibre Pillow (DP-II)(2nd AC)	Washable Pillow (DP-I)(1st AC)
CR	1 to 116	20 to 40	0 to 58	Not used	0 to 58	0	0 to 7	0 to 5	Not used
ECOR	21 to 48	28 to 346	24 to 39	28 to 346	41 to 51	0	7 to 17	6 to 14	6 to 8
ECR	20 to 27	21 to 28	25 to 42	30 to 44	26 to 42	27 to 38	0 to 11	0 to 2	0 to 6
ER	0 to 68	0 to 300	0 to 68	0 to 300	0 to 83	0 to 225	3 to 28	2 to 27	0 to 620
NCR	0 to 18	0	0 to 18	0	0 to 18	0	0	0	0
NER	0 to 54	25	0 to 36	25	0 to 24	20 to 25	0 to 9	0 to 9	0
NFR	20 to 50	Not used	20 to 50	Not used	20 to 50	Not used	0 to 5	Not used	0 to 2
NR	0 to 35	0 to 108	0 to 25	0 to 108	0 to 72	0	0 to 25	0 to 25	0
NWR	2 to 37	--	0 to 21	--	0 to 32	--	0 to 8	0 to 8	--
SCR	0 to 90	0	0 to 90	0 to 50	0 to 90	20	0 to 6	0 to 6	--
SER	0 to 100	1 to 22	0 to 100	22 to 54	0 to 100	0 to 22	0 to 11	4 to 7	0 to 11
SECR	17 to 18	Not used	34 to 36	Not used	34 to 36	0	4 to 77	Not used	4 to 77
SR	0 to 48	--	0 to 48	--	0 to 48	--	0	0	--
SWR	0 to 152	--	0 to 152	--	0 to 152	0 to 56	0 to 16	0 to 16	--
WCR	0 to 41	25 to 67	0 to 44	25 to 67	0 to 45	0	0 to 6	0 to 6	0
WR	8 to 324	--	0 to 145	--	0 to 145	--	0 to 23	0 to 23	--

Carrying of provisions more than 1.5 times to double the requirements in a large number of cases, put a strain on the storage space available in the trains.

During Exit Conference, Railways stated (February 2017) that they have received references from Zonal Railways about shortage of space in depot and trains. They further stated that Railway is exploring supply of linen from intermediate stations as per demand, which would address the space constraints in trains.

The position of availability of new linen at Coaching Depots for the three year period covered in the review was checked in audit and it was seen that no norms had been prescribed for maintaining stock levels of various linen items in the coaching depots. As on 31 March 2016, the closing stock of the following

items were more than two years' requirement, indicating high levels of stock in Coaching Depots:

Zonal Railway	Coaching Depot	Item	EAC	Closing balance of fresh stock as on 31 March 2016	Stock in hand in terms of months' requirement
NER	Lucknow	Washable Pillow (1 <sup>st</sup> AC)	40	115	35
NR	New Delhi	Bed Sheet (ACASH) & (Polyvastra)	9940	56895	69
NR	New Delhi	Pillow Cover (ACASH-II AC) & (Polyvastra)	20710	46270	27
NWR	Jaipur	Woolen Blanket	2075	7208	42
SER	Santragachi	Towel Turkish bath	157	1,200	92
SWR	Yeshwanthpur	Bed Sheet (Polyvastra)	1200	3864	39
SWR	Yeshwanthpur	Pillow Cover (Polyvastra)	1500	3393	27
SWR	Yeshwanthpur	Washable Pillow (DP-I) (1 <sup>st</sup> AC)	120	2094	209

The new stock at Coaching Depot should be the minimum possible and should be determined keeping in view the time required for transfer of stock from GSD.

Further, stock verification of store items is required to be done as per laid down rules. It was observed that during the period of review in 15<sup>155</sup> Coaching Depots in 10 Zonal Railways, no departmental stock verification was done and in eight<sup>156</sup> Coaching Depots of six Zonal Railways, no stock verification was done by the Accounts Stock Verifier. Records were not made available in NER. An amount of ₹ 45.37 lakh<sup>157</sup> on account of shortages detected during stock verification was yet to be recovered in four Zonal Railways.

### (c) Condemnation of linen

Railway Board revised (January 2010) the life of various items of linen kit<sup>158</sup>. The condemnation of linen was to be carried out based on prescribed life or on a condition basis as per recommendation of a committee nominated by the Divisional Railway Manager (DRM). The condemned bedrolls items in railways were being treated as nil value scrap and disposed off by burning. As the condemned linen have some departmental use and residual value, the extant practice of disposal was later revised. Condemned linen are now sent to stores section under the coaching depot. Some of the linen items are issued for

<sup>155</sup> SR-(BOOT laundry/Basin Bridge & Kochuveli), ECoR (Bhubaneswar and PURI), WCR-Jabalpur,Kota , SWR -(Bangalore City & Yesvantpur), SECR (Durg),NER-Lucknow Junction, NCR (Allahabad), CR (Nagpur, Wadibunder), SCR (Secunderabad), ER (Tikiapara)]

<sup>156</sup>SR (both BOOT laundries), SWR(Yesvantpur), NFR (CDO/Guwahati), SCR (CD/Hyderabad), ECR, ER (CD/Sealdah & Howrah)

<sup>157</sup> ECoR - ₹ 21.85 lakh, SCR - ₹ 4.42 lakh), NR - ₹ 3.81 lakh, WR - ₹ 15.29 lakh

<sup>158</sup> Bed sheet from 24 months to 12 month for Khadi supplied by M/s ACASH, 24 months for Polyvastra supplied by KVIC or mill made variety, Pillow cover & face towel from 12 months to 9 months, Pillow from 36 months to 24 months, Blanket from 60 months to 48 months.



departmental use and some are issued to the charitable organisation with approval of competent authority for use by the needy people. Balance stocks are intimated to the Stores Department for auction sale. It was observed that in SR condemned linen were burnt at BOOT Laundry/Kochuveli during 2015-16. In six Zonal Railways (SER, WCR, SCR, NCR, CR and ECoR), disposal was not carried out timely and linen were lying either in the coaching depot or Stores depot even after condemnation as seen during joint inspection by audit. This reduces storage space for linen which is in use. In NFR (Dibrugarh) condemned linen were not auctioned during the period under review.

The above findings show that the storage space in the Coaching Depots was not adequate and proper storing arrangements were not made at many places. No norms had been prescribed for optimal stock of bedroll to be carried in trains. To avoid any shortages and replace bedrolls in case of complaints in the train, extra bedroll kits were provided. This had an impact on the available storage space in the trains. Delay in condemnation of old stock also took away available space for storage in Coaching Depots.

***Audit objective 2: To review functioning of mechanised laundries and assess the effectiveness of mechanism of washing and distribution of linen.***

#### **4.1.4 Setting up and working of Mechanised Laundries for washing linen**

To bring a significant improvement in quality of washing, Zonal Railways were instructed (December 2009) for setting up automated/mechanised laundries for washing/cleaning through BOOT model by private parties.

Indian Railways planned to set up mechanised laundries under departmental and BOOT model. 45 such laundries were planned (at the selected coaching depots) at different times in different zones. Railway Board in January 2013 fixed the target dates between January and December 2013 for completion of the works of 17 laundries (including augmentation) and asked the status. The position of setting up of mechanised laundries was checked for the period 2013-14 to 2015-16 and it was observed that:

- As of 31 March 2016, out of the 17<sup>159</sup> laundries, ten<sup>160</sup> have been set up and work in respect of seven<sup>161</sup> was yet to be completed. As against five planned on BOOT model, only two have been completed. There were delays of up to 30 months due to revision of estimates, delays in vetting and delays in finalization of tenders.

<sup>159</sup>Wadibunder(BOOT), Nagpur(BOOT), Pune(BOOT)-CR, Danapur-ECR, Sealdah, Howrah, Malda Town-ER, Dibrugarh, New Jalpaiguri-NFR, Santragachi(BOOT), Chakradharpur, Hatia-SER, Tiruvananthapuram(BOOT), Ernakulam-SR, Hubli, Mysore-SWR, Surat-WR

<sup>160</sup>CR-1 (Wadibunder), ECR-1 (Danapur), NFR-1 (New Jaipalguri), SER-2 (Chakradharpur and Hatia) SR-1 (Thiruvananthapuram), SWR-2(Hubli, Mysore), WR-1 (Surat), ER (Malda Town)

<sup>161</sup> CR-2(Nagpur, Pune), ER-2(Sealdah, Howrah), NFR-1(Dibrugarh), SER-1(SSantragachi), SR-1(Ernakulam)

- Out of the remaining 28<sup>162</sup> laundries to be set up in various Zonal Railways, 20<sup>163</sup> mechanised departmental laundries had been installed and seven<sup>164</sup> were yet to be installed. There were delays of up to 35 months due to similar reasons.
- In two Zones (ECoR and NCR) no mechanical laundries were installed.
- Due to inadequate response of interested party for BOOT model laundries, railways installed departmental laundries. Audit reviewed available information of the handling capacity of the 26<sup>165</sup> departmental mechanized laundries and found that the capacity installed was not sufficient for the requirements of the railways and railways continued to meet bulk of its requirement through outsourcing (93 *per cent* of the total linen handled for washing by selected coaching depots) during the period under review. As per available information in respect of 21<sup>166</sup> departmental mechanised laundries it was seen that during the review period against the total capacity of washing of the 40082 MT, actual outturn was 29780 MT i.e. a shortfall of 10302 MT (26 *per cent*). The available capacity was not utilised fully mainly due to breakdown of machines.

#### Annexure 4.1 and 4.2

- Departmental mechanised laundries were established where interested parties did not come up for setting up the laundries under BOOT model. The departmental laundries maintain an account of consumables used and the number of washed linen. In 21 coaching depots of 11 Zonal Railways (CR, ER, NER, NFR, NR, NWR, SCR, SECR, SER, SWR, and WR) per tonne usage of consumables detergents and other chemicals varied widely. There was no system to check the quality of washing in case of departmental mechanised laundries unlike in the case of washing by contractors.

During Exit Conference, Railways agreed (February 2017) that the capacity available with them for washing in mechanized laundry is limited and most of the requirement was being met through outsourcing. They further stated that progress have been made in setting up of mechanized laundries over all Zonal Railways and as departmental staff is not able to manage the operation of mechanised laundries, these would be set up on BOOT model only. They also

<sup>162</sup>Samastipur-ECR, Gwalior, Allahabad-NCR, Gorakhpur, Lucknow, Kathgodam, Manduadih-NER, Benaras, Lucknow-NR, Secunderabad, Kacheguda(Depttl.), Kacheguda(BOOT), Tirupati(BOOT), Kakinada(BOOT)-SCR, Bilaspur, Durg-SECR, Basin Bridge(BOOT), Mangalore(BOOT), Coimbatore(BOOT), Madurai(BOOT)-SR, Jabalpur, Kota-WCR, Indore, Grant Road, Ahmedabad(BOOT), Junagarh-WR, Jodhpur, Bikaner-NWR.

<sup>163</sup>Samastipur-ECR, Gorakhpur, Lucknow, Kathgodam, Manduadih-NER, Benaras, Lucknow-NR, Secunderabad, Kacheguda(Depttl.), Kacheguda(BOOT)-SCR, Bilaspur, Durg-SECR, Basin Bridge(BOOT)-SR, Jabalpur, Kota-WCR, Grant Road, Ahmedabad(BOOT), Junagarh-WR, Jodhpur, Bikaner-NWR.

<sup>164</sup>Gwalior, Allahabad-NCR, Tirupati(BOOT), Kakinada(BOOT)-SCR, Mangalore(BOOT), Coimbatore(BOOT), Madurai(BOOT)-SR,

<sup>165</sup>CR- Wadibunder, ECR – Danapur and Samastipur, ER – Sealdah and Howrah, NER – Kathgodam and Gorakhpur, NFR – Kamakhya and New Jalpaiguri, NR – Lucknow and Varanasi, NWR – Jodhpur and Bikaner, SCR – Secunderabad and Hyderabad, SECR – Bilaspur and Durg, SER – Santragachi, Hatia and Tata, SWR – Hubli and Mysore, WCR – Jabalpur and Kota, WR – Indore, Grant Road

<sup>166</sup>CR-1(Wadibunder), ECR-2(Danapur, Samastipur), ER-1(Sealdah), NER-2(Gorakhpur, Kathgodam), NFR-1(New Jalpaiguri), NR-1(Lucknow), NWR-2 (Jodhpur and Bikaner), SCR-2(Secunderabad, Kachiguda), SER-3 (Santragachi, Tata and Hatia), SWR-2 (Hubli and Mysore), WCR-2 (Jabalpur and Kota), WR-2 (Indore, Grant Road)



stated that they are ensuring setting up of high capacity mechanized laundries to take care of overall requirement.

#### **4.1.4.1 Treatment of effluents of mechanised laundries**

Railway Board (January 2011<sup>167</sup>) instructed that all effluents from the mechanised laundry conform to pollution control and obtain clearances from the statutory and non-statutory authorities required for installation and operation of the mechanised laundry. Dirty water released from the mechanised laundries is required to be treated in the Effluent Treatment Plant (ETP) or stored in a specially created soak pit for the purpose. Review of records of the period 2013-14 to 2015-16 showed that

- Out of 30 mechanised laundries over 14 Zonal Railways, only in four cases (SCR-1 BOOT, SR-1 BOOT, WR-1 Departmental & 1 BOOT) clearance from the State Pollution Control Board was obtained.
- Out of 30 mechanised laundries over 14 Zonal Railways, in 15 departmental mechanised laundries over 10 Zonal Railways (CR-1, ECR-2, ER-2, NER-1, NR-2, NWR-1, SCR-1, SECR-1, SER-3, WCR-1) no ETPs were installed and the untreated water was allowed to be discharged without treatment. In three mechanised laundries (WCR-1, SCR-1, SWR-1) ETPs were not functional till March 2016. In Mechanised Laundry at Kamakhya (NFR), ETP was recycling only part of the waste water.

#### **Annexure 4.3**

Due to inadequate response from private parties, railways installed departmental mechanised laundries. However, these did not have sufficient handling capacity and railways continued to meet bulk of its requirement through outsourcing. The pace of setting up of departmental mechanised laundries was also slow. No quality check of washing through departmental mechanised laundries was done nor any norms prescribed for the same. Necessary clearances for operating 26 out of 30 mechanised laundries were not obtained from respective State Pollution Control Boards. ETPs were not installed in case of 15 out of 30 mechanised laundries. In respect of the remaining, ETPs were installed in the laundries, but these were not functional and one ETP was recycling only part of the waste water.

During Exit Conference, Railways agreed (February 2017) with the audit observations and stated that the issue needed to be addressed urgently. They stated that ETPs are being installed at all places and their working will be monitored regularly.

#### **4.1.4.2 Washing of linen by contractors**

Railways award washing contracts where either no departmental mechanised laundry facility is there or the available capacity is not able to meet the demand.

<sup>167</sup>Railway Board's letter No.2009/MC@/165/6 dated 14.01.2011 for setting up of mechanized laundry for linen washing on BOOT model (Para 6) should be same for any washing contractors or mechanized laundry

Railway Board stipulated the scope of work<sup>168</sup> for the contractors engaged in linen washing, which included collection of soiled linen from AC coach attendants from the platforms/washing lines and transportation to the laundry stores, supply of washed linen to coaches of trains, along with train-wise place/location where the linen is to be collected from/supplied to etc., standards for cleaning linen, removal of stains, washing, drying, calendaring, ironing in the automated laundry, packing of linen sets in environment friendly bags and storage and maintaining proper account of linen items.

Audit examined 76 selected outsourced contracts in 33 selected Coaching Depots for the period 2013-14 to 2015-16 along with the performance of the contractor. It was observed that there were variations in the rates of washing per item of linen across all the Coaching Depots. In some of the Zonal Railways, the rates were very low. A test check showed that, in some of the Zonal Railways where rates were very low, the percentage of rejection in bed sheets, pillow covers and face towels were higher, which indicated that very low rates resulted in compromise in quality.

In all Zonal Railways (except ECR and SWR) washed linen were rejected in varying quantities for poor quality of washing during the review period. (Bed sheet (ACASH) – 17 per cent in NER, pillow covers – 31 per cent in NER, face towels – 61 per cent in NER and woollen blankets – 5 per cent in NWR).

#### **Good practice**

In SR, in two BOOT laundries at Basin Bridge, number of linen washed is not counted for arranging payment for washing. Instead, it is calculated based on the number of soiled linen/passengers issued with bedroll as per figures obtained from CRIS regarding actual number of passengers travelled (whichever is less) since both washing and distribution are being done by the same contractor.

***There were wide variations in the rates for washing of various items of bedroll. In Zonal Railways where the rates of washing were very low, had comparatively higher percentage of rejection. This indicated that at lower rates quality was compromised.***

#### **4.1.4.3 Washing and sanitisation of blankets**

As per Railway Board instructions<sup>169</sup>, washing of linen (except blanket) should be done after every single use and blankets should be dry-cleaned at least once in two months. It was observed that various Zonal Railways had provided periodicity of once in a fortnight/ month/once in two-three months for washing of blankets. Audit collected the data of number of blankets in use and number of blankets washed during the period of review in the 33 selected coaching depots. During the period of review (2012-13 to 2015-16), it was seen that

<sup>168</sup> Railway Board's letter No. 2009/MC(C)/165/6 dated 14.01.2011 for setting up of mechanised laundry for linen washing on BOOT model

<sup>169</sup> Policy Circular No.19 of 1999

- In 14<sup>170</sup> selected coaching depots of nine Zonal Railways (CR-2, ECR-1, NER-1, NFR-1, NWR-2, SCR-2, SR-2, WCR-2, WR-1) no blankets had been dry washed. Further, except seven<sup>171</sup> depots of five Zonal railways (ER – 1, NR – 2, SECR -1, SWR -2, and WCR - 1) linens had not been sanitised in any of the selected depots.
- In SCR, a specific clause had been incorporated in all the washing contracts for dry-cleaning of woollen blankets by utilising per chloro-ethylene operated dry-cleaning machines. However, contrary to the above contract provision, the woollen blankets were being wet washed.
- In three Zonal Railways (NCR, CR and WR), it was noticed during joint inspection that provision for dry cleaning of blanket every month was made in the contract, but it was not done monthly. Similarly, in SER (Coaching depot Santragachi), provision was made for twice in a month, but the same was not done.
- The process for sanitisation/disinfection of blankets was not prescribed. Audit observed that out of 33 coaching depots, provision of sanitisation of blankets existed in contracts for only six<sup>172</sup> depots in five Zonal Railways (CR - 1, ER -1, SECR -1, SWR -2, and WCR 1). Though no provision existed in the contracts of two depots of NR, blankets were sanitised at an interval of 30 days (Lucknow)/ 15 days (New Delhi) by 'hot air' method and no steam sterilization or chemical sterilization of blankets was done.
- It was observed that during 2015-16, in respect of 12 coaching depots of eight Zonal Railways as given below, blankets had been washed after an interval 6 to 26 months:

Table 4.5 – Percentage shortfall in washing of blankets in selected coaching depots

Zonal Railways	Depot	No. of blankets in use	Blankets required to be washed (No. of blankets x 6)	Blankets washed	Shortfall		Frequency (months)
					No.	in per cent	
CR	Lokmanya Tilak Terminus and Wadi bundar	13732	82392	12488	69904	85	13
ER	Sealdah	14500	87000	9127	77873	90	19
NCR	Gwalior	2456	14736	2616	12120	82	11
NFR	Guwahati	12799	76794	5957	70837	92	26
NFR	Dibrugarh	6305	37830	9687	28143	74	8
NR	Lucknow	5760	34560	2767	31793	92	25
SCR	Secunderabad	21987	131922	43580	88342	67	6
SER	Hatia	6,327	37962	6,327	31635	83	12
SER	Tatanagar	2778	16668	5698	10970	66	6

<sup>170</sup>CR-Lokmanya Tilak Terminus, Wadibunder; ECR-Darbhanga, NER-Lucknow; NFR-Guwahati; NWR-Jodhpur, Jaipur; SCR-Secunderabad, Hyderabad; SR-Chennai Central, Tiruvananthapuram; WCR-Jabalpur, KOTA; WR-Ahmedabad

<sup>171</sup>ER-Sealdah, NR- New Delhi, Lucknow; SECR- Durg; SWR- Yeshwanthpur, KSR Bengaluru City; WCR- KOTA

<sup>172</sup>CR – Nagpur, ER - NCC/ Sealdah, SECR – Durg, SWR –Yeshwanthpur & KSR Bengaluru City, WCR - Kota

Table 4.5 – Percentage shortfall in washing of blankets in selected coaching depots

Zonal Railways	Depot	No. of blankets in use	Blankets required to be washed (No. of blankets x 6)	Blankets washed	Shortfall		Frequency (months)
					No.	in per cent	
WCR	Jabalpur	10028	60168	7634	52534	87	16
WCR	Kota	1282	7692	1282	6410	83	12

**Annexure 4.4****4.1.4.4 Washing and sanitisation of Pillows**

In March 2016, Railway Board instructed that washing of pillows should be done at least once in every six months or prior if required so as to provide neat and hygienic pillows to every passenger. Prior to March 2016, there were no instructions regarding washing of pillows. However, washable pillows where procured were required to be washed. It was observed that in the absence of instructions, pillows were not washed in any of the Zonal Railways except ECoR and NFR (where some of the stock was washed) during the period of review. The process for sanitisation/disinfection of pillows was also not prescribed.

**Annexure 4.4**

***Thus, blankets and pillows were not dry cleaned and/or sanitised for long periods before supply to the passengers.***

During Exit Conference, Railways stated (February 2017) that directives have been issued to wash blankets once in a month henceforth.

**4.1.4.5 Quality of washed linen*****(a) Quality of cleaning of linen items***

Railway Board prescribed (January 2011) standards of cleanliness in linen:

- (i) The average whiteness of new linen items after 5 washes shall be taken as the base reference i.e. an index of 100 *per cent*. The contractor must ensure at all times a minimum level of whiteness index of 75 *per cent* for all the constituents of the linen kit.
- (ii) The washing contractor is also required to provide instruments for checking the whiteness of linen and other quality related parameters.
- (iii) There should be no wrinkles or wetness after calendaring. Hand towels should retain their soft feel and water absorbing capacity. The washed linen should be hygienic, bacteria free, stain free and odourless.

Additional parameters in the washing contract are also provided like use of perfumes, softening chemicals for towels, starch for Bed sheets and Pillow covers for crisp feeling. Review at washing contracts for the period 2012-13 to 2015-16 at 33 Coaching depots showed that

- In 24<sup>173</sup> coaching depots of 14 Zonal Railways, neither any provision exists in the contract to provide instrument for checking whiteness of linen nor there is any system of checking the whiteness of linen by contractor or railways own arrangement. In the absence of electronic instruments for quality measurement and lack of penal provision in the contract for not adhering to the quality standards, it was difficult to enforce quality standards prescribed by the Railway Board.
- In 10<sup>174</sup> coaching depots of eight Zonal Railways, provision existed in the contract and checking was done by instrument, but calibration of the instrument was not done in three<sup>175</sup> coaching depots during the period of review.
- In 10 Zonal Railways, at 18<sup>176</sup> coaching depots provision did not exist for use of perfumes in the washed linen. Though provision existed in 17 coaching depots of 11 Zonal Railways for use of perfumes, in six<sup>177</sup> coaching depots perfumes was not used as seen during joint inspections.
- Similarly, provision did not exist in the contract for use of chemical for softening the towels in four depots of three<sup>178</sup> Zonal Railways. Though provision existed in 30 coaching depots of 16<sup>179</sup> railways for use of chemicals for softening the towels, the same was not used in two<sup>180</sup> depots.
- Provision did not exist in the contract for use of starch for bed sheets and pillow covers for crisp feeling in 22 depots of 11<sup>181</sup> Zonal Railways. Though provision exist in eight<sup>182</sup> Zonal Railways 13 depots for use of starch for the washed bed sheets or pillow covers during joint inspection by audit it was noticed that bed sheets did not feel crispy in three<sup>183</sup> Zonal Railways in five depots.

<sup>173</sup>CR (Lokmanya Tilak Terminus, Nagpur), ECoR (Bhubaneswar, Puri), ECR (Rajendra Nagar, Darbhanga), ER (Sealdah, Howrah), NCR (Allahabad, Gwalior), NFR (Dibrugarh), NR (Lucknow), SCR (Secunderabad, Hyderabad), SECR (Durg), SER (Santragachi, Tata, Hatia), SWR (Yeshwanthpur, Bengaluru city), WCR (Jabalpur, Kota), WR (Bandra Terminal), NWR (Jaipur)

<sup>174</sup>CR (Wadibunder-BOOT model), NER (Kathgodam, Gorakhpur), NFR (Guwahati), NR (New Delhi), SECR (Bilaspur), SR (Chennai Central, Thiruvananthapuram), WR (Kankaria), NWR (Jodhpur)

<sup>175</sup>SR (Chennai Central, Thiruvananthapuram), NWR (Jodhpur)

<sup>176</sup>CR (Lokmanya Tilak Terminus, Wadibunder-Deptl & BOOT, Nagpur), ECR-Rajendra Nagar, Darbhanga), ER (Sealdah, Howrah), NER (Kathgodam, Gorakhpur), SECR (Bilaspur), SER (Tata and Hatia), SR (Chennai Central, Thiruvananthapuram), WCR (Kota), WR (Kankaria), NWR (Jodhpur and Jaipur)

<sup>177</sup>ECoR (Bhubaneswar, Puri), ER (Howrah), NFR (Dibrugarh), SCR (Secunderabad, Hyderabad)

<sup>178</sup> ECR (Darbhanga), SER (Tata and Hatia), WCR (Kota)

<sup>179</sup>CR (Lokmanya Tilak Terminus, Wadibunder-Depttl & BOOT, Nagpur), ECoR (Bhubaneswar, Puri), ECR (Rajendra Nagar), ER (Sealdah, Howrah), NCR (Allahabad, Gwalior), NER (Kathgodam, Gorakhpur), NFR (Guwahati, Dibrugarh), NR (Lucknow, New Delhi), SCR (Secunderabad, Hyderabad), SECR (Bilaspur, Durg), SER (Santragachi), SR (Chennai Central, Thiruvananthapuram), SWR (Yeshwanthpur, KSR Bengaluru city), WCR (Jabalpur), WR (Bandra Terminus, Kankaria), NWR (Jodhpur, Jaipur)

<sup>180</sup>ER (Howrah), SER (Santragachi)

<sup>181</sup> CR (Lokmanya Tilak Terminus, Wadibunder Depttl & BOOT), ECR (Rajendra Nagar, Darbhanga), ER (Sealdah, Howrah), NER (Kathgodam, Gorakhpur), NR (Lucknow, New Delhi), SECR (Bilaspur, Durg), SER (Tata, Hatia), SR (Chennai Central, Thiruvananthapuram), WCR (Jabalpur, Kota), WR (Kankaria), NWR (Jodhpur, Jaipur)

<sup>182</sup>CR (Nagpur), ECoR (Bhubaneswar, Puri), NCR (Allahabad, Gwalior), NFR (Guwahati, Dibrugarh), SCR (Secunderabad, Hyderabad), SER (Santragachi), SWR (Yeshwanthpur, KSR Bengaluru city), WR (Bandra Terminus)

<sup>183</sup> CR (Nagpur), ECoR (Bhubaneswar, Puri), NFR (Guwahati, Dibrugarh)

**(b) Inspection/Check of washed linen**

Railway Board (January 2010) prescribed guidelines for checks to be conducted on washed linen and prescribed quantum of random sample check, periodicity and the level of inspection at washing plant before despatch of linen and while receiving the washed linen in the depot. Only in case of emergency, lots primarily rejected could be accepted after imposing suitable penalty. Such practice, however, was to be exercised very rarely, and only in cases where train services are likely to be affected due to shortages. It was also stipulated that no washing contract should be awarded without prior assessment of the availability of required infrastructure and capability and capacity of the firm. Audit review of records during the period of review (April 2013 to March 2016) related to inspections conducted during the period of review at selected Coaching Depots showed that

- Inspection at washing plant before despatch of linen by the Assistant Scale Officer/Sr. Supervisor/SSE, once in every quarter was not done in eight<sup>184</sup> Coaching Depots. Records of inspection done, if any, were not maintained in three<sup>185</sup> Coaching Depots.
- Inspection while receiving the washed linen in the Coaching Depots by the JA grade officer was to be done once in every quarter. This was not done in nine<sup>186</sup> Coaching Depots, not done in the prescribed schedule in two<sup>187</sup> Coaching Depots and no documentary evidences were available in two<sup>188</sup> Coaching Depots.
- At Assistant Scale Officer/Sr. Scale Officer level it was to be done once in every month. During the period of review the same was not done in three<sup>189</sup> Coaching Depots and not done as per prescribed schedule in six<sup>190</sup> Coaching Depots. Similarly, inspection of plant and machinery of the washing contractor before awarding of contract was not done in three<sup>191</sup> Coaching Depots during the period of review.



Fig 6: Wet bed rolls in Train No.18238 – Chhatisgarh Express (21 September 2016)

<sup>184</sup>SR-(Kuchveli-BOOT), CR (Lokmannya Tilak Terminus), ER (Sealdah, Howrah), NR(Lucknow), WR (Bandra Terminus), SER (Santragachi, Hatia)

<sup>185</sup>SR (Basin Bridge-2013-14,14-15), NCR (Gwalior), NR (New Delhi).

<sup>186</sup>SR (Chennai Central, Thiruvananthapuram), SWR (Yashwanthpur, Bangaluru City), CR (Lokmannya Tilak Terminus), ER (Howhar), NR (Lucknow, New Delhi), SER(Hatia)

<sup>187</sup>CR (Wadibunder), SCR (Hyderabad)

<sup>188</sup>NCR (Allahabad), WR(Kankaria)

<sup>189</sup>SR(Thiruvananthapuram, Chennai central),NR(Lucknow)

<sup>190</sup>CR(Lokmannya tilak terminus, Wadibunder), NCR(Gwalior), WR (Bandra Terminus), SCR (Secunderabad, Hyderabad)

<sup>191</sup>NR (Lucknow), SER (Santragachi, Hatia)



- Inspection of plant and machinery of the washing contractor for complying procedure/use of automatic plants and equipment etc. was to be done by Assistant Scale Officer/Senior Scale Officer once in every six months. During the period of review the prescribed inspection was not done in case of four<sup>192</sup> Coaching Depots. There was no documentary evidence as to whether or not the prescribed inspection was done in SECR and WR.
- Monthly report of summary of all inspection/test check was not available in seven<sup>193</sup> Zonal Railways during the period of review.

***(c) Penalties on washing contractors for unsatisfactory performance***

Railway Board fixed (January 2011) the penalties on washing contractors for unsatisfactory performances at various stages of linen management viz. delay in delivery of washed linen, loss or damage to linen, passenger complaints on the quality of washing, cleaning or ironing, packaging, loading & unloading, safe transportation etc.

Review of 76 Washing Contract Agreements in 33 Coaching Depots for the year 2013-14 to 2015-16 showed that

- In ten Zonal Railways (SWR, NFR, CR, ECR, WCR, ECoR, NER, SR, NR and NCR) there were instance of the rate of penalty in the contract for improper packaging being different (most of the cases less) from the rate prescribed by the Railway Board.
- In NCR there was no provision in the contract to levy penalty for unsatisfactory performance.
- In NR, though rejection of sample was 21.72 *per cent* and 12.79 *per cent* i.e. more than two *per cent*, the whole lot should have been rejected as per instruction of Railway Board, which was not done.
- In 13 (CR, ECoR, ER, NCR, NR, NWR, SCR, SECR, SER, SR, SWR, WCR and WR) Zonal Railways, during the period of review an amount of ₹ 6.26 crore was recovered from washing contractors due to their unsatisfactory performance and in eight Zonal Railways (CR, ECR, NCR, NFR, NWR, SER, SR and WR) an amount of ₹ 1.48 crore from 47 washing contractors was yet to be recovered.
- In 10 (CR, ER, NFR, NR, NWR, SCR, SR, SWR, WCR and WR) Zonal Railways, an amount of ₹ 4.75 crore was recovered from washing contractors on account of loss of linen and in two Zonal Railways (ECR and SCR) an amount of ₹ 1.19 crore was outstanding

***There were deficiencies in the washing contracts which diluted the enforcement of quality assurance measures. Electronic instruments for quality measurement were not being used in most of the Zonal Railways. This was also not enforced through the terms and conditions of the contracts. Inspections of quality were not being done adequately. Large amounts were being recovered from washing contractors for unsatisfactory performance.***

<sup>192</sup> SR (Basin Bridge, Kuchuveli-BOOT), SER (Santragachi, Hatia)

<sup>193</sup> NER, ECoR, ECR, NCR, NER, WCR, SER

During Exit Conference, Railways agreed (February 2017) that inspection and supervision of quality of washing was important and needed to be addressed. They stated that they are going for third party audits for monitoring coach cleaning and laundry.

#### **4.1.4.6 Distribution of linen to passengers in trains**

As per Policy Circular 19 of 1999, the distribution of linen was to be done by the railway staff i.e. by coach attendant in the coaches so that the activity was properly monitored. Railway Board modified the instructions in August 2005 and decided that where the availability of staff for such distribution is inadequate, the same can be handed over to a private party. Accordingly, Zonal Railways outsourced the bedroll distribution job along with additional job of escorting AC coach/coach attendant. In SCR it was observed that distribution of Coach Attendants across the two depots test checked were not uniform. While one attendant per coach was deployed on Tirupati Depot, two coaches were attended to by one attendant at Coaching Depot at Secunderabad and Hyderabad. This lack of uniformity leads to avoidable higher deployment leading to possible avoidable expenditure and needs rationalisation across depots on IR.

##### ***(a) Mechanism for ensuring recovery of amounts towards supply of linen on demand by passengers***

In Sleeper Class of Duranto Express<sup>194</sup> and AC III of Garib Rath Express<sup>195</sup>, passengers have an option to book and pay for bedroll along with the payment for ticket. Railways also have a provision to supply bedrolls on demand by the passenger on payment of ₹ 25 per kit in trains. It was observed that in three railways (SER, SR and NCR), no system existed to verify whether bedroll charges were collected from the passengers opting for bedroll in the train, and properly remitted as no separate record was being maintained either in Coaching Depot or in the Chief Ticket Inspector's office. During the passenger survey (undertaken between June 2016 to Sep 2016) in Garib Rath and Duranto Express it was seen that passengers who were provided linen on demand in the train were either not given any receipt though payments were made or no payment was collected.

##### ***(b) Recovery of penalty from defaulting distribution contractors***

Railway Board (March 2006) specified the methodology to be adopted for recovery for loss of bed roll items based on their residual life. Railway Board reduced (January 2010) the life cycle of the linen items. However, the rate of recovery against loss of linen was revised only in 2015. Zonal Railways were also advised (September 2015) to keep a watch on regular defaulters reporting loss of linen and do counselling/training besides levying penalties.

Test check of records of 65 Distribution Contract Agreements over 33 coaching Depots for the year 2013-14 to 2015-16 showed that in SR, loss of linen distributed on train at Chennai Coaching Depot has not been quantified during

<sup>194</sup>W.e.f Oct 2009

<sup>195</sup>W.e.f. Dec 2012



the period from April 2013 to November 2013 and no recovery was made. During the period of review, an amount ₹ 7.42 crore was recovered in 11 (CR, ECoR, ECR, ER, NCR, NER, NFR, NR, NWR, SCR and SECR) Zonal Railways and ₹ 1.64 crore was outstanding in eight Zonal Railways (CR, ECoR, ECR, ER, NCR, NER, SER and SECR) from the distribution contractor for loss of linen.

Railways did not adhere to the statutory requirements in respect of the payments made to the labours of distribution contractors.

#### 4.1.4.7 Storage space of linen in trains

Railway Board Policy Circular No.19 of July 1999 laid down strategy for supply of good quality linen to the travelling passengers and emphasized on developing proper storage facility at stations as well as in the trains. Railway Board also issued instructions (July 1995) to modify the layout of the existing AC 3-Tier coaches and reduce the number of berths from 67 to 64.

On board study was conducted in trains including Garib Rath Express as well as the platforms to assess the adequacy/inadequacy of storage space. During field/joint inspections during August/September 2016 it was observed that



- In none of the trains test checked, storage space was adequate. In Garib Rath, LHB type coaches, trains having more than two links were having limited space for storing linen.
- In four Zonal Railways (SER, NER, SR, WR), even fresh linen was being stored on the floor of the corridors /vestibules of the coaches, entrance/exit gates, near toilets etc.
- In Ranchi Station (SER), it was noticed that the platform was not fully covered with shed and linen were susceptible to getting wet, dirty and unhygienic during loading and unloading.

Thus, storage space in trains was inadequate and linen was stored on the floor, in the vestibules and near toilet, making it dirty and unhygienic to use.

#### **4.1.5 Feedback and complaint redressal mechanism**

##### **4.1.5.1 Passenger Feedback**

Monitoring of quality and adequacy of linen rests on passenger satisfaction through feedbacks. Railway Board instructed (Policy Circular No.19 of 1999) that on-board staff should give feedback about the quality of linen in their lobby offices. Also feedback from travelling passengers should be taken from time to time by developing suitable feedback forms to improve the services.

Railway Board further instructed (January 2011) that the contractor shall make arrangements for making feedback in the prescribed forms available to the passengers through the departmental on board AC staff/ACCI, who shall obtain passenger feedback from at least five passengers per AC coach in each direction. One feedback shall also be taken from Train Superintendent/Travelling Ticket Examiner (TS/TTE) for each direction over and above the feedback from passengers. Review of records for the years 2013-14 to 2015-16 showed that out of 33 coaching depots over 16 Zonal Railways:

- Provision for collection of passenger feedback existed in washing contract of only one Kankaria Coaching Depot, Ahmedabad Division of WR.
- In distribution contract only four Coaching Depots of two ZRs (Guwahati and Dibrugarh in NFR and Secunderabad and Hyderabad in SCR), provision for collection of passenger feedback existed.
- In NFR, no feedback was taken from the passengers in respect of any of the depots.
- In SCR, out of 579400 passengers to be surveyed for two depots, 393276 (68 *per cent*) passengers were surveyed out of which 48 *per cent* were not satisfied, but no penalty was levied.
- In SR, both washing and distribution contracts of Chennai and Thiruvananthapuram Coaching Depots provided for collection of feedback from passengers. However, details of passenger feedback collected were not made available to audit in any of the depots.

During Exit Conference, Railways stated (February 2017) that they would use feedback from passengers to bring about improvement in quality of linen services.

#### 4.1.5.2 Passenger complaint and redressal system

Indian Railways has time and again reiterated its commitment to provide good quality fresh, bright, crisp, ironed and stain free linen to passengers. An effective complaint redressal mechanism is thus necessary for redressal of complaints of passengers: Passengers have an option to lodge their complaints through various means<sup>196</sup>.

It was observed that during the period of review, 6726 complaints (1559 in 2013-14 for 31 depots, 2768 in 2014-15 for 33 depots, 2399 in 2015-16 for 33 depots) pertaining to linen had been lodged by the passengers in respect of 33 selected Coaching Depots over all Zonal Railways. A detailed review of 538 complaints over all Zonal Railways was done and it was seen that these complaints pertain to issue of bedroll not cleaned and ironed, non-supply of hand towel, dirty and unhygienic bedroll, blanket & pillow full of dirt etc. In most of these cases, action was taken by the railways and penalty of ₹ 500 to ₹ 2000 (₹10,000 in two cases and ₹ 4000 in one case) was imposed on the respective contractors. As regards complaints pertaining to Coaching Depots where Departmental Mechanised Laundries were doing the washing, no record was being maintained for rejection and replacement of linen.

### Annexure 4.5

#### 4.1.5.3 Passenger Survey by audit teams

In the absence of records relating to passenger feedbacks by the railway administration/ washing or distribution contractors as prescribed by Railway Board, audit conducted (June 2016 to September 2016) a passenger survey in 79 trains of all Zonal Railways randomly selecting 25 passengers in each train. The passenger survey by audit brought out the following:

- 23 per cent of the passengers graded the overall quality of linen (bedroll except blanket and pillow) as "Average" or "Poor".

<sup>196</sup>138 – Passengers can lodge complaints by dialling 138. The message is stored at commercial control of Divisional and Zonal Headquarter.

**Complaint Monitoring System (URL: [coms.indianrailways.gov.in](http://coms.indianrailways.gov.in))** – This is a web based portal where a passenger can lodge complaint. This can be done through mobile app and SMS. Zonal Railway wise, division wise, complaint type wise reports can be generated, developed and maintained by CRIS.

**Twitter:** Complaints can be lodged through social networking site like twitter. The complaints are transmitted to respective departments.

**Centralised Public Grievance Redressal and Monitoring System (CPGRAMS):** Passenger can lodge complaints through this web portal/ mobile app of Department of Administrative Reforms and Public Grievances. Report is generated department wise, complaint type wise.

Passengers can lodge complaints through **email/letter** to GM/AGM/CCM/Sr.DCM. Subsequently these are transmitted to respective departments.

During journey, complaint book is maintained by TTEs and the book is supposed to be sent to the depot through Train Inspector.

- 48 per cent of the passengers were not aware about how to register the complaint and 55 per cent were of the view that complaint to Railway authorities would not serve any purpose.
- 91 per cent of the passengers were satisfied with the behaviour of the bedroll distribution staff.
- 56 per cent of the passengers were uncomfortable in very cool temperature at night and 79 per cent of the passengers were of the opinion that blankets were required for cool temperature at night.
- 67 per cent of the passengers expressed that the blankets were not hygienic because of multiple use and 52 per cent felt that the blankets were not properly washed.

***Adequate feedback was not being taken from passengers as per laid down norms. As regards complaints pertaining to Coaching Depots where Departmental Mechanised Laundries were doing the washing, no record was being maintained for rejection and replacement of linen.***

#### **4.1.6 Non-adherence to statutory requirements by Railways as Principal Employer**

As per directions, railways as a principal employer must ensure that the distribution contractors have complied with the labour laws and the provisions of Employees Provident Fund (PF) Act and Employees State Insurance (ESI) Act. Linen distribution contractors are under statutory obligation to deduct mandatory PF & ESI contribution and this along with matching contribution is deposited in the respective accounts of the contractual labours. 65 distribution contracts were examined by audit and it was observed that

- In four Zonal Railways (ER, NCR, SER and WCR) and one depot (Jodhpur) of NWR, the estimate was not prepared based on Minimum Wages Act.
- In four Zonal Railways (ER, NCR, NWR and SCR), there was no provision for payments of wages through bank accounts.
- There was no documentary evidence to show that contractors furnished Bank Statements in respect of payments made to the labourers in any<sup>197</sup> of the Zonal Railways.
- In six Zonal Railways (SECR, NCR, NR, SR, CR, NER), no documentary evidence were submitted by the contractor as an evidence towards deduction of ESI, PF from the salary of the labourers. The procedure of submission of documentary evidence was not followed in one depot (Jodhpur) of NWR. In ER, documentary evidence (ECR, i.e., Electronic Challan cum Return) was submitted by two distribution contracts. However, the information furnished in the ECR could not be validated in the official website of Employees' Provident Fund Organisation in respect of one distribution contractor.

<sup>197</sup>Except SR(Thiruvananthapuram)-NAP,WCR(KOTA)-NAP,ECOR(PURI,Bhubaneswar),WCR(Jabalpur),WR(Bandra Terminus & Ahmedabad),CR (Lokmannya Tilak Terminus),NR (Lucknow), SR (Chennai Central, Thiruvananthapuram)

- In two Zonal Railways (NER, NCR, (Allahabad & Gwalior)), the contractor made cash payments of wages and no recovery were made towards PF & ESI for the labours.

***Thus, as Principal Employer, IR did not have a mechanism to ensure adherence of statutory provisions by the distribution contractors.***

During Exit Conference, Railways agreed (February 2017) that adherence to labour laws by the contractors was an area of concern for the IR.

#### **4.1.7 Conclusion**

Annual requirement of various linen items was not being assessed properly leading to stocking of significantly high or low levels of stock. Provision of inspection of a prescribed percentage of new supply was not being used effectively, to ensure, quality of the linen received in General Stores Depots. The storage space was also not adequate and items were not stored in proper environment. The storage was also not done in an organised manner and First in First out (FIFO) methodology was not followed. As a result, linen stock was kept for long periods in unsuitable conditions, which had an impact on their quality.

The storage space in the Coaching Depots was also not adequate and proper storing arrangements were not made. The stock of new linen as on 31 March 2016 were much less than one month's requirement and coaching depots continued to use old/bad linen much beyond their service life. No norms had been prescribed for optimal stock of bedroll to be carried in trains. To avoid any shortages and replace bedrolls in case of complaints in the train, extra bedroll kits were provided. This had an impact on the available storage space in the trains as well. Delay in condemnation of old stock also took away available space for storage in Coaching Depots.

Due to inadequate response from private parties, railways installed departmental mechanised laundries. However, these did not have sufficient handling capacity and railways continued to meet bulk of its requirement through outsourcing. The pace of setting up of departmental mechanised laundries was also slow. No quality check of washing was done or any norms prescribed for departmental mechanised laundries. Necessary clearances for operating mechanised laundries were not obtained from respective State Pollution Control Boards and ETPs were either not installed, not functional or not functional effectively.

There were wide variations in the rates for washing of various items of bedroll. In Zonal Railways where the rates of washing were very low had comparatively higher percentage of rejection. This indicated that at lower rates quality was compromised.

Blankets and pillows were not dry cleaned and/or sanitised for long periods and supplied to the passengers. Electronic instruments for quality measurement were not being used in most of the Zonal Railways. Due to lack of penal provision in the contract for not adhering to the quality standards, it was



difficult to enforce them. Inspections of quality were not being done adequately and these were not able to ensure quality standards. Large amounts were being recovered from washing contractors for unsatisfactory performance, but, it did not act as a deterrent as no improvement was visible. Storage space in trains was inadequate and linen was stored on the floor, in the vestibules and near toilet, making it dirty and unhygienic to use.

Railway as principal employer was lacking in its responsibilities for ensuring compliance of the labour laws by the linen distribution contractors.

#### **4.1.8 Recommendations**

It is recommended that

- 1. Internal control mechanism for monitoring the stock position as well as the procurement process needs to be rationalised and strengthened. Proper storage space may be provided for storage of linen in Store Depots, so that linen can be issued in an organised manner.*
- 2. The new stock at Coaching Depots may be determined keeping in view the time required for transfer of stock from General Stores Depot. Adequate storage space may be provided for storage of linen in Coaching Depots. Similarly, norms for stock to be issued to the trains may be laid down so that storage problems in trains can be addressed.*
- 3. Railways need to increase the pace of setting up of mechanised laundries and prescribe norms for quality standards for washed linen.*
- 4. Railways need to keep a check on quality standards of washed linen. Quality benchmark for washing may be enforced. There is a need to strengthen supervision for enforcing contract terms and conditions.*
- 5. A mechanism may be put in place to ensure strict compliance to norms of cleaning blankets and pillows as per required periodicity.*
- 6. Effluent Treatment Plants may be set up wherever required after obtaining necessary clearances from State Pollution Control Boards while setting up departmental mechanised laundries. Effluent Treatment Plants should be maintained properly and kept in operational state so as to ensure effective treatment of waste water.*
- 7. The mechanism of feedback from passengers may be effectively used for improving passenger satisfaction in respect of quality of linen.*
- 8. Railways may strictly adhere to the statutory requirements in respect to the payments made to the labours of distribution contractors in regard to minimum wages, payment to bank accounts, provident fund, ESIC etc.*

### **4.2 Working of Coach Rehabilitation Workshop, Bhopal**

#### **4.2.1 Introduction**

The Coach Rehabilitation Workshop (CRWS), Bhopal was established in the year 1989 with the capacity for Mid-life Rehabilitation (MLR) of 300 coaches per annum. The life of a steel bodied Railway coach is defined to be 25 years. Rehabilitation work is carried out on the coach which lies in the age group of 12

to 15 years. In this activity, repair on corrosion and degenerated interior and furnishing is carried out to bring it to the level of “as good as new”.

The activity of MLR of railway coaches is carried out through eight major shops. The shop-wise activities are depicted below:



This activity results in savings of repair cost in subsequent years of service of coaches apart from providing improved customer satisfaction to the passengers. In addition to above, other preventive maintenance of passenger coaches viz., Intermediate Overhaul (IOH) and Periodical Overhaul (POH) are also carried out in the workshop. The workshop caters to all the Zonal Railways.

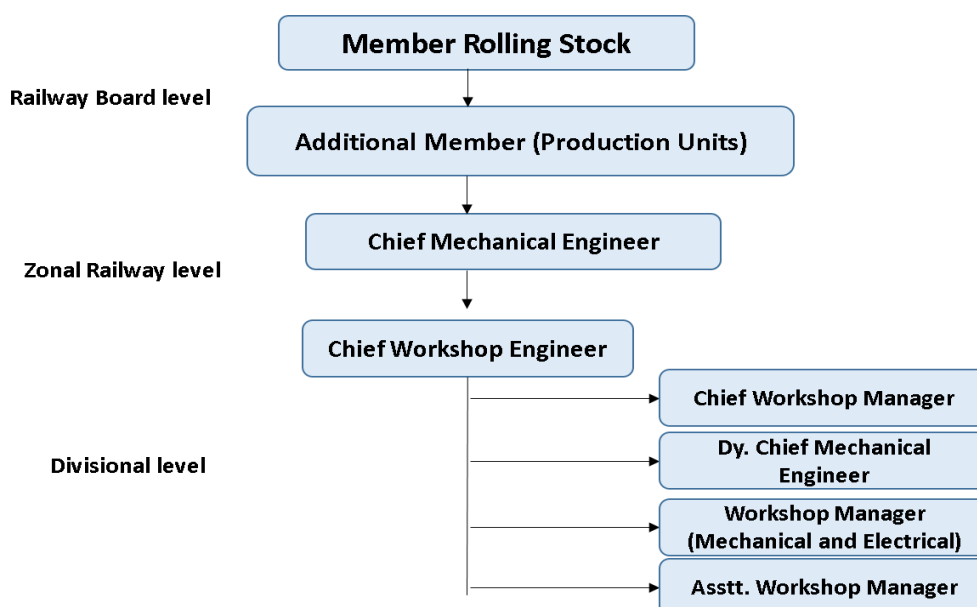
In 2005-06, the capacity of CRWS was enhanced from MLR of 300 to 500 coaches per annum. With the increase in population of coaches, need was felt for further increase in the capacity of the workshop. In the Works Programme of 2006-07, a work was sanctioned for enhancing capacity from 500 to 750 coaches. The work of capacity augmentation is still in progress and present out-turn of CRWS is below 600 coaches per annum.

### Organizational Structure

At Railway Board's level, CRWS, Bhopal is under the control of Member Rolling Stock who is assisted by Additional Members (Production Unit).

At the Zonal level (WCR), Chief Mechanical Engineer (CME) and Chief Workshop Engineer (CWE) are responsible for implementing the policy guidelines/ orders of the Railway Board. The Workshop is headed by Chief Workshop Manager

(CWM) who is assisted by Dy. Chief Mechanical Engineer and Dy. Chief Mechanical Engineer (Model Rake) aided by Workshop Manager (WM) Mechanical and Electrical. Procurement of stores and disposal of scrap etc. is monitored by Dy. Chief Material Manager (Dy. CMM) who is assisted by Senior Material Manager (SMM) and Assistant Material Manager (AMM). Finance department is headed by Dy. FA&CAO and assisted by Workshop Account Officer (WAO). The hierarchy view is given below:



### Audit Scope and Objectives

The Audit covered a period of three years from 2012-13 to 2015-16 and was taken up to examine

1. Whether planning, financing and execution of MLR activities were efficient, effective and economical;
2. Whether resources available for MLR activities were adequate and these were efficiently and effectively utilized.

### Audit Criteria and Methodology

The audit was conducted keeping in view the following audit criteria:

- Indian Railway Code for Mechanical Department (Workshop), Indian Railway Stores Code Vol-I & Vol-II and other Codes and Manuals pertaining to Contract management, Establishment matters etc.
- Railway Board's Orders, Guidelines issued on the subject from time to time.
- Joint Procedural Orders issued by the Zonal Railways.

The records and data maintained at Zonal Headquarters office (WCR) as well as in the office of Chief Workshop Manager, Dy. Chief Mechanical Engineer, Dy. Chief Material Manager and Works Manager (Electrical) were reviewed. All the contracts awarded for MLR related activities (excluding petty works contracts)



were reviewed. The audit findings were discussed with Chief Workshop Manager, Bhopal in October 2016.

### Audit Findings

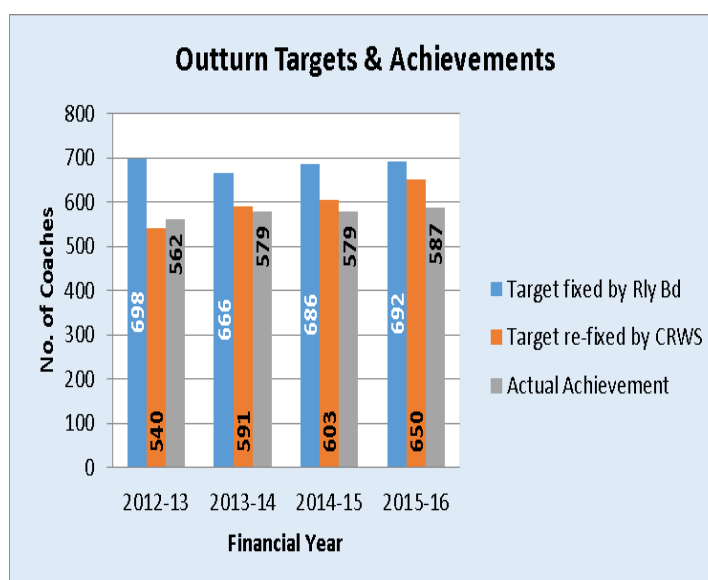
#### 4.2.2 Planning, Financing and Execution of MLR activity

##### 4.2.2.1 Target and Achievements of the workshop

The targets for outturn of MLR of coaches are fixed by the Railway Board on the basis of decision taken during Annual Meetings in Railway Board for 'Fixing the targets for POH and MLR', which is attended by all the mechanical heads of all Zonal Railways.

However, it was seen that while fixing the MLR targets for CRWS, the manpower and infrastructure capacity of the workshop was not kept in mind. Audit noticed that during the period of review target for MLR of the coaches fixed for Railway Board could never be achieved and the same were re-fixed by CRWS itself on the ground of

inadequate manpower availability. The targets set by Railway Board, revised by the Workshop and actual outturn are depicted in the graph.



As can be seen, that the workshop reduced the targets set by the Railway Board by 7 to 19 *per cent*. These were conveyed to Zonal Headquarters office (WCR) and intimated to the Railway Board, but no formal approval was taken.

The actual outturn during this period was ranging from 562 to 587 which was even less than the target re-fixed by the Workshop itself. The Workshop is nowhere near achieving the targets of 750 coaches per annum even though the capacity enhancement works for augmenting the capacity from 500 to 750 are in advanced stage of completion. The reasons for non-achievement of expected target was non-availability of manpower. Further, inordinate delay in completion of capacity enhancement work, delay in commissioning of important high value machines and their frequent failures resulted in lesser outturn.

During Exit Conference, the Workshop stated that targets are reduced keeping in mind the operated staff strength and various other activities undertaken by them such as development of Model Rakes, POH of coaches etc.

A review of the data of coaches received, outturned and under MLR process at the end of the year showed that though the number of coaches outturned have

increased, the coaches outturned as a percentage of coaches in hand has been decreasing over the past four years. One of the reasons for lesser outturn is inadequate capacity to hold coaches in the Pocket Yard, where coaches are received for MLR.

**Table 4.6 – Status of coaches received and outturned by the Workshop**

Year	Opening Balance	Coaches received	Coaches outturned after MLR	Closing Balance
2012-13	68	562	562	68
2013-14	68	609	579	98
2014-15	98	600	579	119
2015-16	119	606	587	138

Source: Holding Register of the workshop

#### 4.2.2.2 Planning and selection of coaches for MLR

As per the criteria fixed by Railway Board, coaches in the age group of 12 to 15 years are selected for MLR activity. The number of coaches of each Zonal Railway is determined by the Railway Board and advised to the workshop regularly. The workshop authority has to plan the intake from various Zonal Railways as per number of coaches determined by the Railway Board.

Quarterly meetings of officials of CRWS/Bhopal and Zonal Railways are held to assess and monitor the intake of coaches due for MLR. Review of records of last three years, showed that 137<sup>198</sup> coaches, which did not belong to the age group of 12 to 15 years were sent to the workshop for MLR. This was 7.55 per cent of the total coaches (1815) received in the workshop for MLR during the period of review. Review of records of returned coaches showed that these were returned back to the respective Zonal Railways due to various reasons as given below:

**Table 4.7– Status of coaches returned after being received in the Workshop**

Reasons for return of coaches	CR	ECR	ECoR	ER	NCR	NER	NFR	NR	SCR	SER	SR	SWR	WCR	WR	Grand Total
MLR already done	1		1			2		2					1		7
Beyond Repair				15				1	1						17
Due for IOH Repair													2		2
Excess holding	3		14	6		2		4		2	2			1	34
New Coach						1		3					1		5
Overage	2	1	3	2		1	3	6	4	1	3	1	4	3	34
Underage		1	3		1		1	3			1		3		13
Coaches not accepted since Rajdhani, Janshatadi, EOG, VPH coaches	0	0	2	1	0	0	0	3	2	2	0	0	0	1	11
Others	0	0	0	3	0	0	0	5	0	1	0	0	3	2	14
<b>Total</b>															<b>137</b>

<sup>198</sup> 2013-14 – 32, 2014-15 – 39 and 2015-16 – 66

The above data shows that

- 34 coaches were returned, as the capacity to hold coaches in pocket yard was inadequate.
- 52 coaches were not due for MLR as these were overaged<sup>199</sup>, underaged or just new. Nine of these coaches were more than 20 to 33 years old. This also indicated that once a coach misses the window for MLR, it is never subjected to rehabilitation, till it is condemned. While some issues can be addressed during POH and IOH, major repair such as corrosion repair, gritting followed by painting etc. cannot be done in POH/IOH.
- 11 coaches were returned as these belonged to Rajdhani, Janshatabdi, VPH etc. for which MLR is not done.
- Seven coaches received had already undergone MLR recently.
- 17 coaches were beyond repair and were going to be condemned shortly.
- 51 of these coaches were detained for five to 159 days in the workshop. Overall these coaches were detained for 1066 days leading to loss of earning capacity of ₹ 2.21 crore of coaches.

Receipt of a significant number of coaches not as per the criteria laid down and their subsequent return indicated that Zonal Railways were not exercising appropriate checks before sending coaches for MLR.

#### Annexure 4.6

##### 4.2.2.3 Non-compliance of codal provision for preparation of deficiency list of fittings in coaches sending for MLR

As per Para 119 of Indian Railway Maintenance Manual (BG Coach), a joint check of deficiencies in the coach should be carried out by the representatives of Mechanical, Electrical and Security Departments of the Zonal Railways before sending the coach to workshop for MLR. On the basis of this joint inspection, a Deficiency List of fittings<sup>200</sup> should be prepared under joint signature of the three representatives and pasted on the coach. Copy of the Deficiency List should also be sent to the workshop and Railway Protection Force. On arrival of the coach to workshop, a joint check should again be carried out by the representatives of the three departments of the Workshop. In case any additional deficiency is noticed, a list of such deficiency should be reported to the base station for further necessary action.

During the check of related records at Stripping Shop of CRWS workshop, it was noticed that the above prescribed procedure is not being followed either by the base station or by the CRWS. The Deficiency List, as required, is not pasted by the base station on the coach, which indicates that no joint check of fittings was being carried out at base station before sending the coach to workshop for MLR. Similarly, on arrival of this coach to workshop, though a check of fittings is

<sup>199</sup>As per Railway Board letter dated 29.05.2006, the codal life of a passenger coach is 25 years

<sup>200</sup> Fan, wash basin, window shutter, wall protector, lavatory pan etc.

carried out by the Stripping Shop staff, the same is not being reported to the base station.

By not following this important procedure, Zonal Railways left the coaches susceptible to theft of fittings *en route*. When this issue was raised by Audit earlier in February 2013, the Workshop stated (June 2013) that all the Zonal Railways have been instructed to remove these fittings before sending the coach to workshop because these fittings are otherwise replaced during MLR. The fittings so removed by the base station could be used by them during routine maintenance. These instructions, however, were contrary to the above codal provision, wherein it was stated to prepare the Deficiency List of fittings to past on the coach rather than to remove the fittings. The facts remains that the provisions are not being followed correctly and by not highlighting the deficiencies at the base station, coaches are left susceptible to theft of fittings *en route*.

#### 4.2.2.4 Time taken in MLR

Midlife Rehabilitation (MLR) of coaches are processed through seven main shops of the workshop. Supporting shops provide support for the activities undertaken by the main shops. Shop-wise activities undertaken can be summarized as follows:

Table 4.8- Activities undertaken by main shops	
Shop	Activities undertaken by the shop
<i>Pocket/ Yard Shop</i>	This shop receives coaches from open line for MLR and MLR completed coaches are sent back to open line for onward despatch of coach to respective Zonal Railway
<i>Grit Shop</i>	The status of existing paint of coach is checked here. If the existing paint of coach is required to be removed, the coach is sent to this shop for removal of paint. If the painting of a coach is ok, this shop is skipped.
<i>Stripping shop</i>	All the existing electrical and mechanical fittings are retrieved from the coach (Body) and coach is made to skeleton. The stripped out material is sent to their respective supporting shops (Electric and train lighting, Carpentry).
<i>Body and Air brake shop</i>	The skeleton body of the coach received after stripping are sent here for corrosion repairs. The lower part of the coach is sent to CBRA shop (Bogie repair shop) and upper part of coach is sent to CBRB shop (Body repair shop).
<i>Paint shop</i>	After completion of repair by the Body shop, coach is sent for painting in this shop.
<i>Furnishing shop</i>	After painting, all the electrical, mechanical and carpentry items are re-fitted and made the body of the coach complete.
<i>Final Shop</i>	Completed coach body and completed bogie is again joined together to make it a complete coach. It is checked for quality purpose and advised to NTRX for checks. Once it is clear, it is sent to pocket yard for dispatch.

In addition to the above main shops, supporting shops are also involved in MLR activities such as separation of bogie and body of coach (Lifting Bay shop), separating wheel assembly, bearings etc. from coach (Bogie shop), repair of wheels/bearings (Shell shop), repair/replacement of electrical parts (Electric and Train Lighting shop), carpentry works (Carpentry shop) etc.

The standard time for each process has been fixed by the Rail India Technical and Economic Service (RITES) vide Para 6.8 of their report on 'Implementation of modified scheme at CRWS, Bhopal, Volume-I'. A total of 38.50 days has been prescribed for complete MLR of a coach.

Actual time taken in each such shop and total days taken in completion of MLR was studied for the period 2013-14 to 2015-16 and it was noticed that there is huge variation in number of days taken in various shops vis-à-vis prescribed norms. During this period, out of 1691 coaches for which MLR was undertaken, MLR for only 442 (26 *per cent*) coaches were completed within prescribed time limit of 38.5 days. The average time taken for MLR of these 1691 coaches during the review period was 57 days. The Workshop attributed the delays to shortage of man-power, frequent break-down of machineries etc. If MLR of all the coaches was done within the prescribed time limit, outturn of at least twenty *per cent* more coaches would have been achieved.

Audit reviewed the average time taken in main shops, where major MLR activities were done, and results are tabulated below:

Table 4.9– Number of days taken in shop activity as against prescribed norms									
Name of the shop	Norms* (in days)	Average no. of days actually taken for one coach			Average no. of days taken beyond the norms fixed by RITES for one coach			Average delay	Brief reasons for delay
		2013-14	2014-15	2015-16	2013-14	2014-15	2015-16		
Pocket/ Yard Shop	1	26	13	5	25	12	4	13.67	Insufficient space (Nishatpura Yard).
Grit Shop	1	--	--	8	--	--	7	--	Grit was not done on any of the coaches received during 2013-14 and 2014-15
Stripping Shop	4	6	6	4	2	2	0	1.33	Manpower constraints
Bogie repair shop	8	5	5	4	-3	-3	-4	Nil	
Body repair shop	6	4	4	4	-2	-2	-2	Nil	
Paint shop	6	31	15	10	25	9	4	12.67	Frequent failure of PU Painting machine
Furnishing shop	8	7	5	4	-1	-3	-4	Nil	
Final Shop	1	4	3	2	3	2	1	2	Time taken by the NTRX on re-repair
*No. of days fixed by RITES for the shop for one coach									

It can be seen from the above table that

- Average time taken in the Yard Shop, Paint Shop has been much higher than the prescribed norms, during 2013-14. There has been improvement thereafter and during 2015-16 the delays have substantially been controlled. However, time taken by the workshop need to be further controlled so as to bring it with in the norms.

- The bogie-repair, body-repair and furnishing shops are able to complete the work within the prescribed norms.
- Delays in completion of activities in these shops is resulting in overall delay in completion of MLR activity and shortfall in outturn.
- Grit was not done on any of the coaches received during 2013-14 and 2014-15. It was also noticed that the Grit Blasting Machine<sup>201</sup> remained under breakdown from August 2014 to August 2015. In 2015-16, the Grit Shop on an average took eight days per coach as against the norm of 1 day.

During Exit Conference (October 2016), CRWS intimated that during the current year (up to September 2016), the average time of one coach for MLR has been brought down to approximately 44 days. However, the same is still more than the prescribed time period of 38.5 days.

#### 4.2.2.5 Detention before and after MLR

Audit reviewed detention of coaches before and after the completion of MLR activities. The records of Pocket Yard of CRWS workshop were test checked for the year 2015-16 and it was noticed that coaches coming for MLR were kept waiting for required space in the workshop. Out of the 686 coaches sent by Nishatpura yard during 2015-16, 264 coaches were detained for 2557 days. There is no time period fixed for sending the coaches to Pocket Yard from Nishatpura yard and back to Nishatpura yard after completion of MLR. The detention was ranging from 1 day to 35 days with the average detention of 20 days under waiting condition. The loss of earning capacity due to detention of coaches for 2557 days, as worked out by audit, was ₹ 5.30 crore for the year 2015-16. The detention of coaches post MLR, was however not significant and ranged between 1 and 2 days.

Detention of coaches before the MLR activity increases the overall period of coach being out of service.

#### 4.2.2.6 Post-Performance of MLR

To ensure the quality of MLR, the workshop needs to ensure that the quality of the work by the workman and the material used is optimum. Audit, however, observed that no specific norms has been prescribed for ensuring the workmanship in MLR.

Completed MLR coaches are checked by an independent authority of Indian Railway Conference Association (IRCA) through its Neutral Train Examiner (NTXR). The shortcomings pointed out by NTXR are re-repaired by the workshop. These are re-examined by the NTXR and finally sent to yard shop for onward dispatch of coach to respective Zonal Railways.

##### (i) Re-repair of MLR completed coaches on advice of NTXR

Audit observed that out of total 2286 coaches rehabilitated during the review period, 855 (37.40 per cent) coaches were found defective by NTXRs in the Final

<sup>201</sup> The machine is used for removing the existing paint of the coach and smoothening the surface after paint removal.

shop. These were then re-repaired by the Workshop. As such, every third coach turned out required re-repair of some sort. The total time consumed on re-repair of these 855 coaches was 2423 days and the average time spent for re-repair was 2.83 days per coach. The main lacuna as pointed out by the NTXRs are painting, stencil writings, buffer height margins and cleanings etc. These reflect deficiencies in the quality of workmanship. This was also one of the main reasons for detention of coaches.

#### Annexure 4.7

##### (ii) Online failure<sup>202</sup> of coaches post MLR

Audit observed that 87 out of 2286 coaches rehabilitated during the review period failed online. Out of these 87 coaches, 49 coaches failed within 100 days of MLR and remaining 38 coaches failed after 100 days of MLR. The reasons for online failure of coaches were defective material such as V-belt, Electronic Rectifier-cum-Regulating Unit (ERUU), Alternator pulley chain brake in 24 cases and in remaining cases, failure was on operational account such as improper handling by the crew, Carriage and Wagon staff etc. as can be seen from the table below:

Year	No of Coaches/ Wagons Detached due to online failure	No. of coaches failed within 100 Days of MLR	No. of coaches failed after 100 Days of MLR	Description of the Failed Material	Reasons for Failure	Remarks
2012-13	44	32	12	Failed materials are V- belt, ERRU, Alternator pulley chain brake cylinder etc.	out of 44 cases in 08 cases material was found defective	Out of 87 cases of online failure of MLR coaches, the reason for failure was defective material in 24 cases
2013-14	19	7	12		out of 19 cases in 08 cases material was found defective	
2014-15	16	6	10		out of 16 cases in 06 cases material was found defective	
2015-16	8	4	4		out of 08 cases in 02 cases material was found defective	
<b>Total</b>	<b>87</b>	<b>49</b>	<b>38</b>			

#### 4.2.3 Assets Management (Infrastructure and its up-gradation)

The records pertaining to proposals for Rolling Stock Programme, process of procurement, installation, commissioning and utilization of plant and machinery were studied in audit. The audit findings are discussed below:

##### 4.2.3.1 Use of over-aged Machineries

Review of Machinery and Plant Register maintained in the Office of Chief Workshop Manager showed that as on 31 March 2016, 11 machineries costing

<sup>202</sup> Online failure means where coaches are detached in transit due to fault



₹1.59 crore had completed their codal life, but were not condemned till date. The Workshop stated (December 2011) that these machines had not been condemned as some of their parts had been put to alternative use which was beneficial to Railways. 'Phosphating Plant' costing ₹ 0.51 crore, was one of the over-aged machinery not in use since March 2002 due to an objection raised by State Pollution Control Board of Madhya Pradesh. In its place, a new Shot Blasting Machine was installed in February 2004. Some major parts of Phosphating Plant are being used in other activities and the cost of this machine still appears in Assets Register. As a result, Railways had to pay a dividend @ ₹ 3.28 lakh every year. The overall liability of payment of dividend against these over aged eleven machines lying idle was ₹ 10.33 lakh per annum.

#### 4.2.3.2 Augmentation of capacity

CRWS, Bhopal was set up in 1989 with an initial capacity of MLR of 300 coaches per annum. To exploit maximum possible capacity of this workshop, three capacity enhancement works were undertaken from 2003-04 onwards as tabulated below:

Table 4.11 – Details of capacity enhancement works taken up at CRWS, Bhopal			
S. no	Name of work	Estimated Cost (₹ crore)	Sanctioned year
(i)	Augmentation of facilities for enhancement of MLR outturn capacity from 300 coaches to 500 coaches per annum <sup>203</sup> .	5.74	2003-04
(ii)	Augmentation of facilities for enhancement of MLR outturn capacity from 500 coaches to 750 coaches per annum <sup>204</sup>	30.00	2005-06

(i) The work of capacity enhancement of MLR outturn capacity from 300 coaches to 500 coaches per annum was sanctioned by the Railway Board in 2003-04 at an estimated cost of ₹ 5.74 crore. The work commenced on 30 July 2004 with the scheduled completion date as 29 July 2005. This augmentation work was completed (31 October 2012) with a delay of seven years due to revisions in the detailed estimate a number of times and paucity of funds. After completion of this work, expected outturn of 500 coaches have been achieved by the workshop.

(ii) The work of augmentation of facilities for enhancement of MLR outturn capacity from 500 coaches to 750 coaches per annum was sanctioned in August 2006 at the cost of ₹ 30 crore. After several revisions to detailed estimate, the work commenced on 26 December 2008. The scheduled date of completion of this work was 25 June 2010. The project included procurement and installation of total 37 mechanical and 27 electrical machineries at a total cost ₹ 4.54 crore. In addition, the project included procurement, installation and commissioning of high value machineries viz., Guillotine shearing machine, Grit blasting machine and Poly Urethane Painting machine. However, the project was yet to be completed (October 2016). The reasons for delay in completion of work as

<sup>203</sup> Pink book item no. 182

<sup>204</sup> Pink book item no. 296

stated by the workshops authority were shortage of funds and revisions of detailed estimate a number of times. The above work of capacity enhancement included construction of civil structure for machineries to be procured, extension of sheds and shops to accommodate more coaches, provision of additional pit lines and construction of Stores Depot etc.

#### 4.2.3.3 Procurement and installation of Poly Urethane Paint line System

This machine is an automated spray painting system for painting of railway coaches. After cleaning the surface of the coach, surface is painted through this machine and then dried in baking oven. The procurement of this machine was solely for the purpose of capacity augmentation. The anticipated cost of this machine was ₹17.30 crore (₹13 crore for bare cost of machine and ₹4.30 crore for the construction of civil structure). The work of procurement and installation of this machine was sanctioned in 2008-09. After finalization of detailed estimate and administrative approvals, contract for supply of this machine was awarded by the COFMOW in March 2010. The machine was to be supplied within 10 months from the date of contract, but it was delayed till February 2013 for want of GA drawing which are to be finalized by the workshop authorities.

The work of construction of structure for this machine was assigned to Construction Organization of Bhopal Division. The tender for the construction of structure was awarded on 15 April 2009. The schedule date of its completion was 11 months from the date of award of contract but the work was completed in March 2016. Due to delay in finalization of drawing and designs and shortage of funds, the civil work got delayed and the machine could be commissioned in March 2016 after completion of construction of structure. Commissioning of this machine took seven years. Delay at various stages are tabulated below:

**Table 4.12 – Delays in commissioning of PU Paint line System**

Reasons	Delay in months
<i>Delay in revision of estimate and provision of additional funds</i>	6
<i>Delay in award of contract for supply and commissioning of Paint System</i>	5
<i>Delay in clearance of GA Drawings</i>	35
<i>Delay in award of contract for erection of civil structure for Paint System</i>	6
<i>Delay in completion of civil structure work</i>	25
<i>Delay in commissioning</i>	7
<b>Total Delay (in months)</b>	<b>84</b>

This was a high-tech automatic painting machine and painting time was expected to be reduced which would ultimately reduce the MLR days and increase the outturn. But due to delays in commissioning of this machine, Railway could not get the benefit of saving time on painting. The outturn of the workshop still remains between 562 and 587. Thus, the objective of investment on the PU Paint line System for capacity enhancement work did not serve the purpose.

Audit further analyzed post performance of the PU Paint line System during the period from April to June 2016. It was noticed that against the prescribed time of 6 days per coach, the Paint shop still taking 13 to 20 days as tabulated below:

Table 4.13 – Time taken in PU Paint Line System per coach			
Month	No. of Coaches handled by Paint Shop	Total days taken	Average days per coach
April 2016	46	946	20.56
May 2016	45	894	19.86
June 2016	52	669	12.86

Delays in time taken for MLR activities thus, resulted in lesser outturn than envisaged.

During Exit Conference (October 2016), the Workshop accepted the audit observation and opined that the main reason for less outturn is manpower constraint. However, it was seen that despite augmenting manpower through outsourcing and paying incentive, the Workshop was not able to achieve the targets. Delay in installing/commissioning of machineries and frequent breakdown of new machines were also the reasons for less outturn.

#### 4.2.4 Manpower

Proper assessment of manpower is the primary step in manpower management of any organization. The required manpower in workshop is to be assessed duly analyzing the activities, jobs, skills and time required for execution of jobs, availability of infrastructure etc. The capacity of any workshop would normally be related to the availability of manpower, plant and machinery and the workshop layout with the level of performance of men and machinery determining the outturn. Based on the Feasibility Study (February 2002) conducted by RITES on Incentive Scheme, Railway Board increased (03 May 2013) the sanctioned strength from 1909 to 2385 for targeted outturn of 647 coaches. Detailed analysis of manpower of major shops as on 31 March 2016 is given below:

Table 4.14 – Manpower related information for major shops					
Name of shop	Sanctioned strength	Men in position	Percentage vacancy	Supplemented through outsourced manpower during 2015-16	GIS amount paid (₹ in lakh)
Stripping shop	119	89	25.2	0	50.97
Shell shop	80	47	41.3	0	29.11
Bogie shop	192	206	-7.3	0	121.26
Wheel shop	71	80	-12.7	0	49.93
Furnishing shop	432	342	20.8	9	201.66
Paint shop	154	126	18.2	16	73.86
Carpentry Shop	228	196	14.0	5	129.05
Body Repair shop (CBRA+CBRB)	690	532	22.9	30	353.86

Table 4.14 – Manpower related information for major shops

<i>Name of shop</i>	<i>Sanctioned strength</i>	<i>Men in position</i>	<i>Percentage vacancy</i>	<i>Supplemented through outsourced manpower during 2015-16</i>	<i>GIS amount paid (₹ in lakh)</i>
<i>Electric &amp; Train Lighting (ETL)</i>	194	165	14.9	2	93.94

It can be seen that

- While there were shortages in major shops, in Wheel Shop and Bogie Shop, the men-in-position was more than the sanctioned strength. This created an imbalance as, MLR activity is sum total of activities of all the shops and more manpower than required in some shops does not add on to the overall outturn. It was seen that incentive of ₹1.71 crore was paid in these shops for more work done, which was not justified.
- Despite supplementing manpower through outsourcing, large amounts were paid for incentive in Body repair shop, Paint shop, Furnishing shop and Carpentry shop.
- In these shops a total amount of ₹ 11.03 crore was paid as incentive during 2015-16. However, outturn could not be achieved as per the targets.

#### 4.2.5 Non-revision of MLR cost under Rolling Stock Programme (RSP)

In March 2002, the Railway Board notified the bifurcation of the capital cost of the MLR to be charged under Rolling Stock Programme & Depreciation Reserve Fund. As per the guidelines, ₹ 25 lakh for AC coach and ₹ 12.5 lakh for Non-AC coach is to be charged as capital cost and ₹ 5 lakh for AC coach and ₹ 3.5 lakh for Non-AC coach is to be charged as POH cost (revenue expenditure on maintenance), which is to be debited to respective Zonal Railways.

With the passage of time, cost of wages and stores material has increased considerably but the above ceiling has not been revised by the Railway Board so far. Accordingly, the cost of MLR charged to RSP is only ₹ 25 lakh for AC coach and ₹ 12.5 lakh for Non-AC coach. The remaining amount is charged to Zonal Railways as POH cost.

By adopting the above procedure for booking of costs, the capital cost is being understated and the revenue cost (i.e. POH cost charged to Zonal Railways) is being over stated over the years. As such, the actual cost of MLR per coach is not correctly depicted.

#### 4.2.6 Conclusion

Midlife Rehabilitation (MLR) of passenger coaches is the main activity of this workshop. The purpose of this activity is savings of repair cost in subsequent years of service of coaches apart from providing improved customer satisfaction to the passengers. The targets for outturn of MLR coaches are fixed by Railway

Board annually. These were reduced by the Workshop to the extent of 19 per cent. There were shortfalls in achievement of the reduced targets by the workshop.

A significant number of coaches received in the Workshop were not accepted for MLR and later returned after being detained in the Workshop (Pocket Yard), as these did not fit the criteria set for MLR. Zonal Railways were not exercising adequate checks and caution before sending the coaches for MLR. It was also seen that once a coach misses the window for MLR, it is never subjected to rehabilitation, till it is condemned.

The Pocket Shop had capacity constraints, which added to detention of coaches and also return of some of the coaches back to the Zonal Railways. There were delays in outturn in various major shops as against the prescribed norms on account of insufficient space and frequent failure of machineries. This resulted in short achievement of targets and detention of coaches causing loss of earning capacity. The capacity augmentation project undertaken by the workshop (500 to 750 coaches per annum), was yet to be completed (October 2016) as against the targets date of completion of June 2010.

The matter was referred to Railway Board in December 2016; their reply has not been received (February 2017).

#### 4.2.7 Recommendations

It is recommended that

1. *Zonal Railways may be directed to strengthen their controls in order to ensure that coaches due for MLR as per the laid down criteria, only are sent to MLR workshops.*
2. *Capacity of the Pocket Yard needs to be augmented on priority basis, so as to ensure that all coaches due for MLR are taken in.*
3. *Workshop may insist that the Zonal Railways must send the Deficiency lists along with coaches received for MLR.*
4. *CRWS, Bhopal may take effective steps to reduce the detention of coaches beyond the prescribed norms in various shops to ensure achievement of targets of coach outturn.*

**4.3 North Central Railway (NCR): Detention of periodic hauled (POHed) wagons at Jhansi Workshop by using them for storage of scrap instead of carrying freight**

*NCR Administration used POHed wagons for storage of scrap wheels/axles instead of sending them to open line for carrying freight traffic. This led to detention of 318 POHed wagons (April 2012 to June 2016) and consequent loss of earning capacity of ₹22.87 crore.*

The Performance of Indian Railways as a 'Goods Carrier' depends amongst others on the optimal utilisation of its rolling stock. To keep wagons (a rolling stock) fit for optimum traffic use, regular and periodical maintenance/overhauling are necessary. Railways undertake regular maintenance and periodical overhauling (POH) in a time bound manner and as per laid down schedules at wagon sick lines and workshops. For wagons, Periodic overhaul is done after every six years and Routine overhaul (ROH)/Intermediate overhaul (IOH) after every two years.

Jhansi workshop of NCR is a major POH wagon workshop and handles 22 *per cent* of the POH work of Indian Railways. It receives various types of wagons for POH from Zonal Railways as per the plan fixed by Railway Board. After the modernisation of Jhansi workshop (with effect from October 1995) the permissible time for POH has been fixed as four days.

Scrutiny of records of Jhansi Workshop and its Stores Department was done by audit. During the year 2012-13 to 2015-16, POH of total 30,056 wagons<sup>205</sup> was done by Jhansi Workshop. It was seen that:

1. During this period, 289 wagons after POH were not sent immediately to the open line for traffic use, but with a delay of three to 607 days; average delay being 58 days. No time period has been prescribed for handing over of fit wagons after POH to open line.
2. These POHed wagons (289) were utilized by Jhansi Workshop for the purpose of storage of scrap wheels/axles during the period 2012-13 to 2015-16. After storing these wheels/axles in these wagons, rakes were formed to transport scrap wheel/axles to Rail Wheel Factory, Yelhenka, Bangalore.
3. The practice of storing the scarp wheels/axles was continuing and during April to June 2016, 29 wagons loaded with scrap wheel/axle were stabled in the Workshop. Scrap once identified is required to be handed over to Deputy Chief Material Manager/Scrap for further disposal/transportation.

Utilization of these 318 POHed wagons (up to June 2016) for storage of scrap wheels/axles led to detention of wagons and consequent loss of earning capacity of ₹ 22.87 crore<sup>206</sup>.

The matter of detention of wagons for storage of scrap was taken up with Workshop authorities in March 2015. Workshop authorities in their reply stated (October 2015) that space for storage of wheels/axles was not adequate in workshop. They further stated that as the space is costly, the scarp was stored in wagons till a rake load scrap becomes available for transportation to Rail Wheel Factory, Yelhenka, Bangalore. However, NCR Administration in their further response (December 2016) stated that, storage space was not a constraint at Jhansi Workshop.

<sup>205</sup> BOXN/BOXN-HS – mainly used for loading coal, iron ore, stone etc.

<sup>206</sup> Loss of earning calculated as per statistical statement no.15 and 24 for the year 2012-13, 2013-14 and 2014-15

Thus, the POHed wagons are being used for storage of scrap wheels/axles and not used for traffic purpose for earning revenue. This leads to detention of wagons and consequent loss of earning capacity, which is avoidable.

The matter was referred to Railway Board in December 2016; their reply has not been received (February 2017).

#### **4.4 Integral Coach Factory (ICF): Injudicious procurement of material for manufacturing coaches for Kolkata Metro**

*Injudicious action of the ICF Administration in recommending BHEL for supply of electrics without ascertaining the eligibility criterion and procurement of material before approval of tender by the Railway Board, led to loss of ₹ 6.17 crore as the material procured had become obsolete due to change in policy for manufacturing of metro rakes.*

Integrated Coach Factory (ICF), Chennai is a Production Unit of IR. It manufactures various types of railway passenger coaches including AC rakes for Kolkata Metro with conventional DC electrics<sup>207</sup>.

For upgradation of technology, Railway Board instructed (November 2011) ICF to switch over to IGBT<sup>208</sup> based modern 3-phase technology for manufacture of metro rakes, as these were highly energy efficient. Considering the fact that ICF would take some time to switch over to the new 3-phase propulsion technology, Railway Board conveyed (March 2012) administrative approval to manufacture of seven additional rakes with conventional DC electrics to meet the immediate requirement of Kolkata Metro. Railway Board also asked ICF to confirm the feasibility of manufacturing these seven additional rakes in 2012-13, over and above the numbers planned as per the production programme 2012-13. In December 2012, these seven additional rakes were included in the production programme of ICF by Railway Board.

ICF initiated (April 2012) procurement process for manufacturing these seven rakes before the revision of production plan (December 2012) and floated (April 2012) tender for 'Procurement of electrics (propulsion equipment) for Kolkata Metro'. The tender was opened in May 2012 and ICF recommended (January 2013) the bid of BHEL for ₹ 178.69 crore to Railway Board for acceptance.

Audit observed that the Appreciation Committee of Railway Board met 11 times<sup>209</sup> during the period from October 2013 to September 2014 and deliberated with ICF on the eligibility of BHEL for the tender. Appreciation Committee viewed that the DC electrics supplied by BHEL during the last five years to Kolkata Metro had not completed two years in service on the date of opening of the tender, as stipulated in the tender document as one of the eligibility criteria and thus the offer of BHEL did not meet the eligibility criterion. Two years after the recommendation of ICF, Railway Board finally discharged

<sup>207</sup> Propulsion equipment - A propulsion system consists of a source of mechanical power, and a propulsor (means of converting this power into propulsive force).

<sup>208</sup> An insulated-gate bipolar transistor (IGBT) is a three-terminal power semiconductor device primarily used as an electronic switch which as it was developed, came to combine high efficiency and fast switching.

<sup>209</sup> The Appreciation Committee met 11 times – 3 Oct 2013, 8 Oct 2013, 3 Dec 2013, 8 Jan 2014, 10 Feb 2014, 19 Feb 2014, 25 Feb 2014, 28 Feb 2014, 29 April 2014, 28 Aug 2014, 2 Sep 2014



(January 2015) the tender and decided that henceforth, Metro rakes would be manufactured with modern 3-phase propulsion only.

While the deliberations on tender were going on, and apart from the procurement of electric, ICF Administration initiated process for procuring other materials such as doors, wheels, axle, side windows, light fittings, electrical cables, junction box, terminal board etc. related to manufacturing of the additional seven rakes for Kolkata, Metro and placed (April 2012 to July 2013) purchase orders for a value of ₹ 19.45 crore. These materials were delivered (July 2012 to September 2014) by the suppliers. However, due to the decision of Railway Board to discontinue production of Metro rakes with conventional DC Electrics, the material procured remained idle.

ICF Administration itself accepted (December 2015) that high value items are to be planned only after finalization of tender for procurement of electrics and stated that since the case was recommended for acceptance, no problem was anticipated in manufacturing of the rakes at that point of time. ICF further accepted that items procured for Kolkata Metro are non-moving and stated that it was due to change in policy of Railway Board to manufacture Metro rakes with modern 3-phase propulsion only.

As regards utilization of material, ICF Administration stated (April 2016) that materials worth ₹ 1.97 crore can be used, material worth ₹ 6.17 crore cannot be used and material worth ₹ 10.66 crore can be used after modification. They further stated continuous efforts are being made to liquidate the non-moving items by using them at alternative Workshops/ Production Units.

As checked by audit, as of June 2016, material worth ₹ 18.80 crore out of ₹ 19.45 crore were lying idle. Further, items worth ₹ 0.49 crore were issued to shop floor for alternate use after modification and ₹ 0.17 crore worth material issued to shop floor as it is for alternate use. However, there are no records to show that these materials were utilised.

Thus, injudicious action of the ICF Administration in recommending BHEL for supply of electrics without ascertaining the eligibility criterion and procurement of material before approval of tender by the Railway Board, led to loss of ₹ 6.17 crore as the material procured had become obsolete due to change in policy for manufacturing of metro rakes. Besides an amount of ₹ 12.63 crore was blocked on account of material which as ICF had stated, could be used as it is (₹ 1.97 crore) or after modification (₹ 10.66 crore) and was lying unutilized.

The matter was taken up with ICF Administration in October 2016. They stated (December 2016) that material worth ₹ 4.27 crore are to be spared to Kolkata Metro, material worth ₹ 0.06 crore has been issued to shop and the remaining material is planned for consumption from current year onwards. Audit, however, noticed that as on December 2016, no material has been spared to Kolkata Metro, material worth ₹ 0.71 crore were utilised and no plan has been drawn for consumption. Thus, material worth ₹ 18.09 crore are lying unutilised.

The matter was referred to Railway Board in December 2016; their reply has not been received (February 2017).

**4.5 South Eastern Railway (SER) : Deficient planning in procurement and non-installation of machines simultaneously in the same complex, led to non-achievement of objective of a self-sufficient Wheel Shop in the Wagon Shop at Kharagpur Workshop**

*Deficient planning in procurement and non-installation of machines simultaneously in the Kharagpur Workshop under Modernisation Plan led to unfruitful investment of ₹5.90 crore.*

In April 2006, Railway Board envisaged a Workshop Modernization Plan for replacement of over-aged Machinery & Plant (M & P) items of some identified workshops including Kharagpur Workshop b in South Eastern Railway (SER). The main objective was to reduce Periodical Overhaul (POH) time, reduction in manpower/increased outturn with same manpower and overall improvement in quality etc. Financial sanction for the Modernisation Plan was given by GM, SER in March 2008.

Under the Modernisation Plan, the Workshop identified the requirement of (i) one 500 T Horizontal Wheel & Axle Press Machine (ii) one Vertical Turning and Boring Machine (iii) one Universal Axle Journal 'Turning and Burnishing (AJTB) Lathe & (iv) one non-CNC Axle Turning Lathe and other machines for both the main and wagon workshop to make an independent and self-sufficient 'Wheel Shop' in the Wagon Shop. In the justification of Modernisation Plan, the Railway Administration emphasized the need for independent and self-sufficient Wheel Shop to cater to the works like Tyre Turning, press work, axle turning, journal burnishing etc. at the same place.

Four<sup>210</sup> machines were to be procured for setting up an independent and self-sufficient Wheel Shop in the wagon shop. Simultaneous commissioning and operation of the machines in one complex was vital for achieving better outturn.

Review of records in Kharagpur Workshop showed that the Workshop administration did not effectively plan simultaneous purchase and commissioning of all the machines in the same complex, which was required to achieve operational synergy in the chain of activities involving repair and overhaul of wagon wheels.

Initially, the four machines were planned for installation in Shop no.48 and AJTB & VTL machines were installed and commissioned at the Shop no. 48 in the year 2010 and 2011 respectively. However, due to addition of the work of POH of a new type of wagon (BVZI<sup>211</sup>) in the workshop, the space in Shop no. 48 was used

<sup>210</sup> Wheel & Axle Press machine, Vertical Turning Lathe (VTL), Universal Axle Journal Turning and Burnishing Lathe (AJTB) and Axle Turning Lathe (ATL)

<sup>211</sup> Bogie Brake Van: This 8-wheeled brake van was designed in 2004 with ICF bogie to achieve comfort level (Ride Index) equivalent to loco for goods guard and capable of running at 100 kmph. The brake van is 5 meter longer than BVZC brake van, which are 4 Wheeler Brake Van with Air Brake

for berthing of these wagons received in the workshop for POH and the location of Wheel Shop was changed to Shop no. 44 in April 2013. It was seen that AJTB was shifted to the new location in July 2016, but VTL was yet to be shifted to the new location (November 2016). Another machine (Wheel & Axle Press) was installed and commissioned in Shop no.44 in May 2013. As regards, the fourth machine it was initially planned to procure a non-CNC ATL machine. COFMOW in February 2008 however, suggested that instead of non-CNC ATL machine, SER should procure CNC ATL machine. However, the Workshop sent the requisition to COFMOW for procurement of CNC ATL machine only in July 2015, after a gap of more than seven years. This machine (CNC ATL machine) has not yet been received and two machines (Wheel and Axle Press and VTL) cannot be used until the CNC ATL machine is installed and commissioned. Workshop is managing by carrying wheel sets from the Wheel Shop in Wagon Shop to the Wheel Shop in Main Workshop and back; these two shops are two kms apart. This is not only impacting efficiency, but also resulting in recurring expenditure on to and fro transportation of wheel sets between Wheel Shop in Main Workshop and Wheel Shop in Wagon Workshop besides involving material handling and labour expenses.

The issue was brought to the notice of Railway Administration in July 2016. Railway Administration replied (September 2016) that primarily, it was decided that all the machines would be installed in the new shed (Shop No. 48) for a self-sufficient Wheel Shop. The AJTB & VTL machines were installed and commissioned at the Shop no. 48 in the year 2010 and 2011 respectively. But in due course the POH target of the Wagon shop kept on increasing and at the same time new stock started coming to the workshop for POH. This necessitated creating new berthing facility under EOT crane. It was then decided to utilize the remaining space of Shop no. 48 for berthing and POH of BVZI and install the machines in Shop no.44.

However, since the working of these four machines is inter-dependent and they were required to be installed at one location (Wheel Shop of wagon shop) to make the wagon shop self-sufficient and reduce cost of transportation and labour and cycle time for repair, the investment of ₹ 5.90 crore remained unfruitful and would continue to remain so, till CNC ATL machine is procured, installed and commissioned at the new location.

The matter was referred to Railway Board in December 2016. In reply, they stated (February 2017) that the decision to procure CNC ATL machine instead of conventional (Non-CNC) ATL machine was to achieve better productivity and quality. The same is likely to be received by February 2017 and it is expected that the machine would be installed and Wheel Shop fully operational by June 2017. They further stated that AJTB machine was installed in Shop No.44 in July 2016 and the other machine, VTL will be shifted to the Shop No.44 by February 2017. They also stated that Wheel Press had been giving outturn since the commissioning (May 2013) in Shop No.44.

However, as per the user of the machine (Sr. Section Engineer, Kharagpur), there is no outturn by Wheel Press and VTL machines in absence of ATL machine. The user also confirmed (December 2016) that no wheel disc was mounting and dismounting since October 2015 by the AJTB till December 2016 for the want of ATL machine.

#### **4.6 South Eastern Railway (SER): Premature rejection of ERRUs**

*ERRUs, a type of electronic based maintenance free item costing ₹ 5.05 crore became defective without serving its full life and remained un-utilised in defective/ break-down condition in workshop/ coaching depots of South Eastern Railway*

Passenger Coach battery is connected with the alternators through Rectifier-cum-Regulating Unit (RRU)/ Electronic Rectifier-cum-Regulating Unit (ERRU), which converts Alternating Current (AC) output of alternator into regulated Direct Current (DC) and prevents reverse flow of current from battery to the alternator during periods of non-generation. As the RRUs had some inherent limitations, Research Designs and Standards Organisation (RDSO) felt necessary to go for a better design using Insulated Gate Bi-polar Transistor (IGBT) device i.e. ERRU having additional safety features, higher reliability and maintenance free. RDSO standardised the specification of ERRUs in July 2008 to increase the reliability of the components and the specification was further upgraded. SER Administration started using the ERRU in place of RRU since 2011. As per RDSO's specification, ERRU is a maintenance free component, and the manufacturer has to give a declaration that no scheduled maintenance is required except visual checks for mounting and external damages. The prescribed life of an alternator regulator is 12 years.

Audit observed that there was lapse on the part of supplying firms in attending to the warranty failures. Concerned railway officials also failed to ensure timely repair of the defective ERRUs resulting in their accumulation. The performance of ERRUs was reviewed by Audit in Kharagpur Workshop for a period of six years from 2010-11 to 2015-16. It was observed that:

- Substantial numbers of ERRUs developed defects prematurely within a period of one to seven years (against the prescribed codal life of 12 years) due to reasons such as low voltage, high/low generation, burnt out etc.
- 399, 4.5 KW and 48, 25 KW ERRUs fitted in coaches were found defective during periodical maintenance/ overhaul between the periods from April 2010 and November 2015 in the Kharagpur Workshop.
- A similar check in the Coaching Depots of SER during the same period showed that 23, 4.5 KW at Santragachi Coaching Depot and 105, 25 KW ERRUs in three<sup>212</sup> coaching depots fitted in coaches were found defective during maintenance.

<sup>212</sup> 76 nos. in Santragachi of Kharagpur Division, 28 nos. in Hatia of Ranchi Division and one in TATA of Chakradharpur Division

- Chief Electrical General Engineer (CEGE)/SER advised (October 2014 and November 2014) the workshop to repair/upgrade the ERRUs by procuring kits. The workshop though initiated the proposal for repair/upgradation, the same could not materialise and instead it was proposed to enhance the stock by procurement. The response of ERRU suppliers was also very poor to address the warranty failures. The workshop in order to meet the repair needs of some ERRUs resorted to cannibalization of spares from the defective ERRUs thereby rendering the defective ERRUs completely redundant and of no use.
- It was also noticed that though defects were found in respect of ERRUs supplied by all the firms, but only one firm was de-listed (July 2015) by RDSO for not attending the warranty failure and upgradation work of the ERRUs.
- As of July 2016, 341, 4.5 kw ERRUs were lying in Kharagpur workshop premises in defective condition and it was decided for repair/upgradation of 42, 25 kw ERRU and 100, 4.5 kw ERRUs by ERRUs manufacturers (RDSO approved) through open tender. As assessed by railways, the cost of repair comes to almost 66 *per cent* of the cost of fresh procurement, which is on a higher side. Besides, the work of upgradation of 150 out of warranty defective 4.5 kw ERRUs was awarded at a cost of ₹ 93.75 lakh which was subsequently revised to ₹ 1.4 crore for 225 ERRUs.
- Chief Workshop Engineer (CWE), SER in December 2014 issued directions that proper documentation regarding rejection of components during overhauling/ periodic maintenance of rolling stocks is to be maintained and a monthly summary is to be drawn to ascertain the quantity of rejected ERRUs in a month. However, no systematic records were maintained by the Electrical Department of Kharagpur workshop for the defective and rejected ERRUs. Only some periodical status was prepared while reporting the defects to the higher authorities or supplying firms.

The matter was brought to the notice of Railway Administration in January 2016 and July 2016. They replied (September/October 2016) that

- (i) ERRU was a newly developed item and was planned for replacement of RRUs with a view to provide better service. But it had some inherent problems which resulted in their failure. RDSO was continuously investigating the failure and making modifications in order to establish the working of ERRUs.
- (ii) Action was taken on advice of CEGE/SER to go for repair/upgradation, but repair could not be arranged. In Shop also, repair/upgradation could not materialise as material and technical expertise was not available in the Shop/Shed. Turning out of coaches after POH from Workshop and also from Shed was not possible as good material were not available, so cannibalization was the only solution left with the Shop/Shed to get some defective ERRUs ready and turn out the coaches. However, the make-wise record of defective ERRU was always kept by the Shop/Shed. Failure of

almost all make was there because of new technology which was taking time to stabilize.

- (iii) The failure of Stesalit make was very high and at the same time firm had not taken proper interest in rectification, so this firm was delisted by RDSO. However, other firms were responding immediately to rectify the failure. So they have not been delisted and still supplying ERRUs with modified version.
- (iv) RDSO was approached for giving guidelines for repairing of the defective ERRUs in the month of August 2015 and June 2016. Now the instruction has been received for repair/ upgradation, Workshop is going for open tender for repairing of the defective ERRUs from approved vendor of the RDSO. Therefore, all efforts are being taken by the Railway Administration to utilize/repair the defective ERRUs as quickly as possible.

Thus, since ERRUs costing ₹ 5.05 crore became defective without serving full life and lying unutilized in defective/ break-down condition in workshop/ coaching depots of South Eastern Railway, RDSO/Zonal Railways need to diagnose various factors that might be at the root of defects and expeditiously take suitable remedial measures.

The matter was referred to Railway Board in December 2016; their reply has not been received (February 2017).

<b>4.7 Western Railway (WR):</b>	<b><i>Loss due to non-revision of agreement clause for repair and maintenance charges for Rail Milk Tankers (RMT)</i></b>
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<i>Non-revision of the clause in the agreement for maintenance charges for Rail Milk Tankers own by National Dairy Development Board resulted in loss to the Railway Administration.</i>
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Para 1417 to 1430 of Mechanical Code lays down the procedure to be adopted for working out various costs in respect of works undertaken in Railway Workshops for public/private bodies. Railway Board further issued (November 2014) a Special Parcel Train Operators Policy (SPTO) vide Freight Marketing Circular No.23 of 2014. Para 4.1 of this circular categorizes RMT under Category II (Coaching stock) and as per Para 7.2.2 of the circular 'maintenance charges at the rate of 5 *per cent* per annum shall be recovered for open line maintenance of such rakes apart from charges for POH which shall be as per actuals incurred by the workshop'.

Repairs and maintenance of 91<sup>213</sup> Rail Milk Tankers (RMT) owned by National Dairy Development Board (NDDB) is being carried out by the Railway Workshop at Pratapnagar as per an agreement executed between Commercial Department of Western Railway and NDDB from time to time. The current agreement executed on 23 April 2015 effective from 1 April 2015 is valid up to 31 March 2020. In terms of Clause 6.2 of this agreement, 'Maintenance charges at the rate of five *per cent* per annum on the capital cost of the bogies and under frame will be levied and revised capital cost will be worked out every year as per Railway

<sup>213</sup> For the year 2015-16



Board's guidelines issued vide their letter dated 14 December 2007'. Further, Para 6.5 stipulates that 'five *per cent* per annum charge on the capital cost on underframe and bogies would include cost of running maintenance as well as workshop maintenance'. As such, the agreement executed by the Commercial department covered the cost of maintenance in open line as well as workshop @ five *per cent* of the capital cost and not recovery of POH cost on actual basis as envisaged in the SPTO dated November 2014.

In this regard, Chief Workshop Manager, Pratapnagar (CWM/PRTN) worked out the estimated POH cost as ₹ 6.08 lakh per RMT (October 2013), which was revised to ₹ 6.65 lakh per RMT in July 2015. It was observed that this cost of POH as per actuals was not being recovered from NDDDB, as the terms and conditions of the agreement did not provide for the same. The matter of such a huge gap between the charged cost as per the agreement and actual cost incurred as per mechanical code provisions was taken up by Chief Workshop Engineer/Church gate (May 2014) with the Chief Claims Officer where upon, Commercial Department clarified (8 July 2014) that the agreement had been executed as per Railway Board's guidelines issued in March 1993 and February 1995 and any modification to this agreement would require Board's approval. Chief Claims Officer and Chief Commercial Manager/ FS, WR referred the matter to Traffic Transport Directorate of Railway Board (June 2014 & October 2014) seeking clarification on the issue. Traffic Commercial Directorate/ Railway Board (November 2014) clarified that recovery of maintenance charges should continue as per the agreement executed.

Despite prolonged exchange of correspondence between Mechanical and Commercial Department at Zonal/Board's level, the agreement was renewed for a further period of five years in April 2015 without incorporating the clause for recovery of POH charges on actual basis. Subsequently, General Manager/WR vide his letter dated 27 May 2015 directed CCM 'to go for rider agreement for enhancing charges as per actual of next three months' and also took up the matter with Additional Member/Production Unit Railway Board on 16 October 2015 to revise guidelines conforming to codal provisions and Freight Marketing circular No.23 of 2014. It was clarified by Railway Board on 6 November 2015 that 'the issue is under consideration of the Nodal Directorates of Railway Board viz. Freight Marketing and Commercial and the same is being actively pursued for early decision. Meanwhile Contract Agreement terms should be adhered to'.

Thus, failure to incorporate clause in the agreement for recovery of POH charges on actual basis despite matter being taken up by the Mechanical Department of Western Railway led to non-recovery of ₹ 4.43 crore from National Dairy Development Board during April 2015 to Sep 2016.

The matter was referred to Railway Board in November 2016; their reply has not been received (February 2017).