17

STANDING COMMITTEE ON RAILWAYS (2005-06)

FOURTEENTH LOK SABHA

MINISTRY OF RAILWAYS (RAILWAY BOARD)

RAILWAY PRODUCTION UNITS, WORKSHOPS AND MAINTENANCE OF ROLLING STOCK

SEVENTEENTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

February, 2006/*Magha,* 1927 *(Saka)*

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Presented to the Hon'ble Speaker on 3.2.2006
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LOK SABHA SECRETARIAT
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6. Smt. Archana Srivastava	—	*Sr. Executive Assistant*

INTRODUCTION

I, the Chairman of the Standing Committee on Railways (2005-06), having been authorized by the Committee to present the Report on their behalf, present this Seventeenth Report of the Committee on 'Railway Production Units, Workshops and Maintenance of Rolling Stock' to the Hon'ble Speaker.

2. The Committee took evidence of the representatives of the Ministry of Railways on 9th & 27th June, 2005, 20th July, 2005, 5th October, 2005 and 18th November, 2005.

3. The Committee considered and adopted the Report at their sitting held on 18th January, 2006. Minutes of the sittings held on 9th & 27th June, 2005, 20th July, 2005, 5th October, 2005 and 18th November, 2005 and 18th January, 2006 form Part-II of the Report.

4. The Committee wish to express their thanks to the officers of the Ministry of Railways (Railway Board), for appearing before the Committee and furnishing the material and information which the Committee desired in connection with the examination of the subject 'Railway Production Units, Workshops and Maintenance of Rolling Stock' and sharing with them the issues concerning the subject which came up for discussion during evidence.

NEW DELHI;
January, 2006
Pausa, 1927 *(Saka)*

BASUDEB ACHARIA,
Chairman,
Standing Committee on Railways.

REPORT

CHAPTER I

Introductory

For over one and a half century, the Indian Railways have been the principal mode of transport in the country. It has become a part and parcel of the country's socio-economic life. Over the period, the technological advancement in the operation of the system has been successfully adopted by the Railways as per the requirement. At present, the Indian Railways has a fleet of 2,28,170 wagons (units), 40,781 coaches and 7,817 locomotives and are running 13,684 trains daily including 8,622 passenger trains carrying 14 million passengers and 1.6 million tonne of freight traffic covering around 8018 stations.

1.2 The planned growth and development of the Railway system in the country started from 1952 onwards. Being the main component of the nation's transport infrastucture, railways have evolved a suitable infrastructure for meeting the transport needs. At the time of independence, Indian Railways had only steam locomotives and these were gradually replaced by the diesel and electric locos subsequently. As on 01.04.2005 Railways were having only 33 Steam locos on their system. The advent of electrification has not only made the Railway cleaner and more eco-friendly but also energy efficient.

1.3 Prior to independence, by and large all the requirement of rolling stocks and components were imported mainly from UK and from USA during world war-II such as WD class of locomotives. Very minuscule meter gauge Steam locomotives were manufactured at Ajmer and Jamalpur by assembling the imported parts. It was only after independence that Railways felt that they should have their own production units for manufacturing coaches, diesel and electric locos, wheels, axles, wheelsets and diesel loco components. The Chitranjan Locomotives was the first production units set up by the Railways in 1948. For the maintenance of locomotives, carriages and wagons, Indian Railways set up several maintenance workshops at different places in the country. These workshops are the backbone of the Indian Railways. Periodic overhauling of diesel and electric locos, coaches, wagons and EMUs at specified periodicity is undertaken in these workshops besides manufacturing and repairing various components required for rolling stock maintenance in field units.

1.4 While the Railways requirement of wagons is met with largely by Public and Private Sector Units, the Railways Production Units meet the requirement of locomotives, coaches and components.

1.5 The holding of rolling stock by railways as on 31.03.2005 was as under:

Type	Position on 31.03.2005
Steam locos	33
Diesel locos	4861
Electric locos	3075 (2951 AC + 124 DC)
Passenger carrying vehicles	37346
Other coaching vehicles	5482
DMU	524
EMU	4385
MEMU Coaches	896

1.6 When asked whether the increase in the number of rolling stocks is commensurate with the growth in the passenger and freight traffic, the Chairman, Railway Board stated:

> "Our growth has not been very consistent in the past and has not been very encouraging too…. Now we can definitely say that we are on a high growth path and national economy is also picking up and likely to be between 7 to 8 per cent. Therefore, the transport sector has to do better and we have to improve the production of our production units for which enough measures have been taken already."

1.7 The requirement of rolling stock is broadly assessed for the Five Year Plan period and is projected at the time of preparation of the Five Year Plan based on the traffic forecast, productivity and replacement requirements. The requirements of the rolling stock is also assessed at the time of the Mid-term appraisal of the Five Year Plans. Also each year the requirement of rolling stock is prepared keeping in view the freight and passenger traffic to be carried in that particular year, the productivity of the production units, availability of funds

and requirement on account of condemnation. Within the ambit of these parameters, orders are placed on the production units every year.

1.8 In the subsequent chapters the Committee will deal with the current and perspective problems relating to productions, maintenance, quality assurance etc. in these Production Units and workshops.

CHAPTER II

PRODUCTION UNITS

Indian Railways has six Production Units manufacturing passenger coaches, diesel & electric locomotives and wheels, axles, wheelsets and diesel loco components (including rebuilding Diesel locomotives). All of these Production Units are ISO-9000 Certified for international parity in Quality Management Systems.

2.2 The coaches are manufactured in 2 production units under the Ministry of Railways *viz*. Integral Coach Factory, Perambur and Rail Coach Factory, Kapurthala. Railways also procures coaches from Bharat Earth Movers Ltd. and Jessops & Company Ltd. Kolkata to meet their requirement.

(i) Integral Coach Factory (ICF)

2.3 Integral Coach Factory (ICF) was established in 1952 at Perambur, Chennai in collaboration with M/s Swiss Car and Elevator Manufacturing Corporation, Switzerland with an annual installed capacity of 350 coaches. The production of coaches from this unit started in 1955. The installed capacity of 350 coaches was enhanced by infrastructural inputs in three phases, culminating with capacity of 1000 fully finished coaches per annum by March 1991. The ICF's business span covers design, development and manufacture of various types of coaches for Indian Railways and for export. ICF has developed over 200 designs of coaches so far.

2.4 Fund allocation and the turnover of ICF during the last three years and the current year is as below:

(Rs. in crore)

Year	Funds allocated	Value of turnover
2002-03	677.49	652.86
2003-04	642.45	609.97
2004-05	726.73	674.49
2005-06	817.59	330.75 (upto September, 2005)

2.5 The year-wise coaches produced by ICF as against the orders placed by the Railways during the last five years and the current year upto September, 2005 is as under:

	Target	Actual
2000-2001	1000	1000
2001-2002	1001	1025
2002-2003	900	944
2003-2004	1135	1070
2004-2005	1100	1119
2005-2006	1093	491 (upto 30 September, 2005)

2.6 The following is the break up of the coaches of different types produced by ICF during the last five years:

Type	Year	ICF	
		Target	Actual
1	2	3	4
EMU	2000-01	111	111
	2001-02	144	71
	2002-03	70	72
	2003-04	108	113
	2004-05	144	112
MEMU	2000-01	40	40
	2001-02	—	—
	2002-03	84	84
	2003-04	—	—
	2004-05	—	—
DMU	2000-01	65	65
	2001-02	60	57
	2002-03	28	30

1	2	3	4
	2003-04	40	37
	2004-05	40	36
BG Con.	2000-01	784	784
	2001-02	797	897
	2002-03	718	758
	2003-04	987	920
	2004-05	916	971

2.7 The production programme of ICF is fixed by the Railway Board each year. As regards capacity enhancement at ICF the representatives of Railway Board informed the Committee during evidence:

> "We are already undertaking works to enhance the capacity at ICF from 1000 to1250 coaches per annum at a cost of Rs. 9 crore. We have sanctioned the works and they are at various phases of progress and planned to complete by 2008. For extra facilities for painting, a work amounting to Rs. 28 crore has been sanctioned and the work is targeted for completion by 2007. Another work relating to augmentation for the EMU shells from 180 coaches at present to 360 coaches per annum at the cost of Rs. 50 crore has been sanctioned. This work will be completed by 2006."

2.8 During the study visit of the Committee to Chennai in October, 2005, the General Manager of the ICF informed the Committee that ICF would be able to manufacture 1250 coaches from 2008-09 onwards with different product mix. When asked whether the capacity can further be increased to 1500 coaches per annum and the availability of inputs required for the purpose, the General Manager of ICF stated:

> "A conceptual plan to increase the capacity to 1500 coaches per year has been sent to Railway Board by the ICF for which we require certain inputs like space, which identified in the adjacent Loco Works/PER/Southern Railway, replacement of machinery and plant to the extent of Rs. 40 to 50 crore per year in the next 3 to 5 years, outsourcing certain items and manpower etc."

2.9 With regard to the action taken by the Railway Board on the conceptual plan submitted for 1500 coaches by ICF, the Chairman,

Railway Board during the course of examination informed that the plan is under examination of the Board and soon it will be finalized.

2.10 ICF has been receiving export orders for coaches and spare parts from various countries. The details of export made during the last five years are as under:

Sl.No.	Product Exported	Customer/Country	Agency	Value in Lakhs
2000-01				
1.	12 Items of Spares	M/s. PCCL/Sri Lanka	M/s RITES	2.14
2.	Axle Box Housing-288 sets	Vietnam National Railways	RCF	13.82
2001-02				
	3 Bogie items	Vietnam National Railways	RCF	3.82
2002-03				
	3 Bogie items	M/s PCCL/Sri Lanka	M/s RITES	2.69
2003-04				
1.	23 items spares	M/s Joh Achelis & Sohne GmbH. Germany	Direct	17.76
2.	2 Wheel sets	M/s Holcim, Lanka	M/s. RITES	5.81
2004-05				
1.	Spares for bogies	M/s Holcim, Lanka	M/s. RITES	1.25
2.	11. MG AC Chair Car Shells	M/s Hartasuma SDN BHD, Malaysia	Direct	348.97

2.11 Since inception, ICF has exported 435 coaches apart from number of spares. The exports to various countries are handled by RITES and IRCON. During their recent study visit, the Committee were informed that a total 435 coaches including AC coaches and special coaches have been exported to 9 Afro-Asia countries. During 2004-05, 11 stainless steel shells were exported to Malaysian Railways at a total value of Rs. 3.48 crore thereby giving a chance to compete in global market for state-of-the-art coaches and also provided experience of stainless steel fabrication which will go a long way in

upgradation of infrastructure and product development at ICF. Further ICF has received an export order from Angola for supply of 56 coaches of ten different types of coaches for Cape Gauge (1067 MM) which is different from gauges used in India. The designs are on the anvil and the manufacture of coaches will be taken up shortly. Further orders from Sudan, Senegal and Mali are in the pipeline.

(ii) Rail Coach Factory (RCF)

2.12 Rail Coach Factory (RCF) with an installed capacity to manufacture 1000 fully furnished coaches was established in 1986 at Kapurthala at a cost of about Rs. 360 crore to augment the supply of passenger coaches to Indian Railways. The first coach from RCF was delivered in 1988. This unit has assimilated Transfer of Technology of coach manufacture from M/s Linke Hoffman Busch/Germany and is equipped to turn out state-of-the-art coaching vehicles for the nation.

2.13 The year-wise funds allocated to RCF during the last three years and current year and the turnover in 2002-03 and 2003-04 are as under:

(Rs. in crore)

Year	Allocation	Turnover
2002-03	460.03	462.48
2003-04	594.80	595.50
2004-05	663.40	—
2005-06	706.99 (BE)	—

2.14 The coaches of different types produced by RCF as against the orders placed during the last five years is as under:

	Target	Actual
2000-2001	1190	1190
2001-2002	1204	1204
2002-2003	941	944
2003-2004	1201	1201
2004-2005	1250	1201

2.15 The following is the break up of the coaches of different types produced by RCF during the last five years:

Type	Year	RCF	
		Target	Actual
MEMU	2000-01	40	40
	2001-02	48	48
	2002-03	—	—
	2003-04	72	72
	2004-05	152	88
DMU	2000-01	10	0
	2001-02	—	—
	2002-03	12	12
	2003-04	12	12
	2004-05	—	—
BG Con.	2000-01	1055	1065
	2001-02	1026	1026
	2002-03	799	802
	2003-04	1023	1023
	2004-05	1042	1057
MG Con.	2000-01	85	85
	2001-02	130	130
	2002-03	130	130
	2003-04	94	94
	2004-05	56	56

2.16 On being enquired by the Committee whether the increase in production of rolling stock in RCF is commensurate with the growth in the passenger as well as freight traffic, the Chairman, Railway Board stated:

> "Our traffic projections are high, we have to improve the production of our Production Units. In this connection we have

taken enough measures to improve output of our production units… We had gone for the capacity enhancement work we intend to increase the present capacity of RCF from 1000 coaches per year to 1400 coaches per year. For this we have already sanctioned the work and the work is going at the cost of nearly Rs. 35 crores. Wheels shop was also necessitated there and we have also sanctioned a work of Rs. 24 crore for that. This work will be completed in 2007."

2.17 RCF has also been exporting coaches. During the year 2000-01, RCF has exported 72 MG-Bogies amounting to Rs. 246.71 lakh to Vietnam.

Requirement of Coaches during X Five Year Plan

2.18 The Railways have projected the requirement of 9160 coaches and 1965 EMUs during the X Plan period. The production of coaches during first three years and planned for the remaining years of the X Plan are as under:

Revised requirement as Per Mid term Review		Acquisition				Balance to be manufactured in the remaining years
		2002-03	2003-04	2004-05	Total	
Coaches	9160	1669	2072	2216	5957	3203
EMUs	1745	122	139	136	397	1348

2.19 Railways have proposed to acquire 2778 coaches during 2005-06. This includes both conventional and EMU and MEMU coaches. Out of this 900 coaches are due to condemnation and the balance 1878 is the demand for additional services and increase in frequency and increase in load of trains.

2.20 The requirement of EMU coaches has been revised in their Mid-Term-Review to 1745 coaches from 1965 coaches for the X Plan and against this during the first three years of the Plan they could acquire only 397 EMUs. On being asked as to how the Railways are going to meet the requirement of balance 1348 EMU coaches in remaining two years of the Plan, the reasons for reduction in target and less production of coaches in the first three years, the Chairman, Railway Board while explaining the reasons for reduction of EMU target stated:

"The electrics are acquired from outside and shell is manufactured in ICF. Out bulk electric demand is for the Mumbai area where DC to AC conversion project is being undertaken by MRVC with World Bank aid. There was one tender of electric for the EMUs. It had to be discharged due to unavoidable reasons because we are doing it with the World Bank aid and we have to follow their procedures. Very recently, we have finalized a tender for the EMUs and now we are going fast on that but with the best of the efforts we will be able to do maximum 360 coaches per year, and not more than that. In the balance two years we will be able to do only 720 or 750 odd coaches i.e. 304 coaches in 2005-06 and 468 coaches in 2006-07. That shortfall of 800 EMU coaches will remain. To that extent, we will have to bear with the over aged EMUs. We are giving extra inputs by way of maintenance of these EMUs so that the safety is not compromised with. This is a situation which was unavoidable and we are bearing with that. In the years to come, we will catch up with the demand."

MEMU Coaches

2.21 As regards the requirement and production of MEMU coaches, the Committee were informed that the total capacity of RCF and ICF to manufacture MEMU coaches is around 2300 and during the first three years of X Plan i.e., 2002-03, 2003-04 and 2004-05, 84, 72 and 88 coaches were procured. About the requirement in the next two years of the X Five Year Plan, the Member Mechanical stated:

"We have set up a Committee to go into the requirements of MEMUs, for example, where the MEMUs will be run. That Committee will be giving is report very shortly and then the programme of MEMUs will be made. But, taking into account what we know till now, this year we have a programme for 64 MEMU coaches. We will make another 48 from the last year's shortfall. So, we will make around 112 this year."

2.22 When asked about the shortages of MG coaches, the Member Mechanical, Railway Board stated:

"On the MG system, even after condemnation of overaged stocks there is no shortage of coaches as such except in Northeast Frontier Railway who has reported the shortage of 25 to 30 coaches which are being sent to them after POH from Golden Rock Workshop of Southern Railway."

2.23 Taking note of the shortage of coaches in almost every zone, the Committee desire to know as to why Railways are not planning before hand their demands for coaches based on the growth in passenger traffic and number of coaches to be declared as condemned and replaced in the next 5 years or 10 years. Responding to the query the Chairman, Railway Board stated:

> "We are already in the process of preparing our own corporate plan. This is one of the items in this corporate plan as to what level of modernization we have to go in the second stage. So, this would find mention there, and accordingly action plan would also be made…… The shortfall of 800 EMU coaches at the terminal year X Plan would be made good by the time we entered the second year of the XI Five Year Plan by increasing production in the ICF plus production from outside agencies within the country."

LHB Coaches

2.24 Railways have signed an agreement with M/s LHB/Alstom for transfer of technology to manufacture stainless steel bodied coaches at Rail Coach Factory, Kapurthala. RCF though has started manufacturing of these modern coaches but is still in the process of assimilating and indigenising the technology. These LHB coaches are to replace the conventional coaches of all the Rajdhani trains. When enquired as to why orders for LHB coaches is not given to ICF, the Chairman, Railway Board stated that as it requires some different types of gadgets and machinery, ICF may get the orders only after full utilization of RCF. Elaborating this further, the Ministry of Railways in a written reply stated that once this technology is fully assimilated and becomes broad based, unit coasts are expected to come down and after that the proposal for extending this technology by way of giving the necessary inputs in terms of M&P etc. to ICF Chennai can be considered. With regard to the uncomfortable toilets and jerks in LHB coaches. The Ministry of Railways stated that certain quality problems have been noticed and these are being regularly discussed between the users and the manufacturer (RCF) so that this can be rectified.

(iii) Diesel Locomotive Works (DLW)

2.25 The Diesel Locomotive Works was established in 1961 in collaboration with M/s. AlCO, USA. The production capacity has progressively been increased to 150 Diesel locomotives at present. After the Transfer of Technology from M/s. General Motors, USA, in the

nineties, this is the only diesel locomotive manufacturing facility in the world with both ALCO and General Motors Locomotive technology with high efficiency and low maintenance costs. It has evolved into an integrated diesel locomotive manufacturing plant, capable of building all components of the locomotives in-house, including the engines, superstructures, fabricated bogies, and under frames. Although General Motors have transferred technology in various equipment and sub-assemblies, yet 100 per cent transfer of technology for these equipments and sub-assemblies has not been made to the Railways. Technology for the valves have not been transferred to the Railways and is being procured through Knorr Bremse, the New York air brake company. Similarly technology for the computer and source code has not been transferred to Railways. As a result Railways are importing around 13 per cent of the items such as engine blocks, turbochargers and other components required for diesel locomotives. In 2004-05 items worth Rs. 129.95 crore i.e. about 14.9 per cent of total production was imported by DLW.

2.26 The types of locomotives being manufactured in DLW at present and technology used in each case is as under;

(i) Conventional AlCO Locos—(WDG 3 A & WDM 3 D) The technology being used is with AC-DC transmission.

(ii) High Horse Power GM Locos—(WDG 4 & WDP 4) The technology being used was obtained through Transfer of Technology from M/s General Motors/USA, with AC three phase traction motors and advanced electrical control system.

2.27 The turnover of unit during the years 2001-02 to 2003-04 is as under:

Year	Rs. in crore
2001-02	574.07
2002-03	711
2003-04	935

2.28 The following is the production of diesel locos by DLW during 2001-02 to 2004-05:

2001-2002	102	(94+8 NRC*)
2002-2003	116	(100+16 NRC*)
2003-2004	116	(109+7 NRC*)
2004-2005	121	(117+4 NRC*)

*Non Railway Customer.

2.29 While giving the reasons for the reduction in production in DLW during the above years in comparison to the installed capacity and steps taken by the Railways to improve the production capacity of DLW, the Ministry of Railways informed that the yearly production of locomotives is based on traffic requirements and availability of funds. The present level of diesel locomotive production planned at DLW is commensurate with the above criteria.

2.30 The target set for procurement of diesel locos during X Five Year Plan and locomotives procured during first three years of Plan is as under:

	Target	Revised target as per mid term review	Acquisition				Balance to be manufactured in the remaining years
			2002-03	2003-04	2004-05	Total	
Diesel locomotives	444	655	100	109	117	326	329

2.31 In the mid-Term Review of the X Plan, the total plan requirement of the diesel locomotives has been increased by Railways from 444 to 655. After taking into account the already manufactured locomotives during the first three years, Railways are to manufacture 329 locos in the remaining two years of the X Plan. During 2005-06, Railways have planned to manufacture 143 locos leaving a balance of 186 locos to be manufactured in 2006-07. Since the DLW capacity is only 150 locomotives and the Railways expect to produce about 293 locos during the remaining two years of the X Plan, still a balance of 36 locomotives remains. The Ministry of Railways informed the Committee that to make up these balance Railways have decided to defer the condemnation of 60 diesel locomotives by two years by giving them three years reschedule after taking care of safety requirement. According to the Railways, the codal life of diesel locomotive is 36 years. Normally after 36 years about 75 per cent locomotives are in a situation, if required, after putting some extra inputs these locomotives can be used with the same capacity for another 3 to 5 years depending upon inputs given. These WDM-II old locomotives manufactured in 1960s are used mostly for freight service.

2.32 Following is the details of the exports of rolling stocks made by DLW during the years 2000-01 to 2003-04:

Year	Rolling Stock	Quantity	Country	Value
2000-01	Diesel Locos	5 Nos.	Bangladesh	1895 Lakhs
2001-02	Diesel Locos	5 Nos.	Bangladesh	1895 Lakhs
	Diesel Locos	2 Nos.	Sri Lanka	722 Lakhs
	Diesel Locos	1 Nos.	Malaysia	581 Lakhs
2002-03	Diesel Locos	10 Nos.	Vietnam	2695 Lakhs
2003-04	Diesel Locos	3 Nos.	Bangladesh	1251 Lakhs

2.33 As regards the steps taken to improve the production capacity, DLW has been advised to explore possibilities for export of locomotives and General Manager/DLW has been given increased delegation of powers for marketing effectively to non railway customers and exports to achieve full capacity utilization. DLW has exported through RITES the ALCO type metre gauge system to countries like Myanmar, Bangladesh, Sudan, Tanzania, and ALCO type broad gauge system to Bangladesh.

(iv) Chittaranjan Locomotive Works (CLW)

2.34 Chittaranjan Locomotive Works (CLW), the first production unit of the Indian Railway was established at Chittaranjan, West Bengal in 1948 and produced its first steam locomotive in 1950. The production of electric locomotives was taken up in 1961 and diesel hydraulic locomotives in 1967-68. However, the production of Steam and Diesel Hydraulic locos were discontinued from 1973-74 and 1993-94 respectively. Since 1993, the product mix has been exclusively electric locomotives for 25 KV AC territories. A steel foundry was set up in 1962-63 for manufacture of cast steel loco parts. CLW has in house facilities for manufacturing and assembly of wheelsets, fabrication and machinery of bogies etc. It has an exclusive centre for design and development. CLW has acquired ISO 9001 certification for loco works in 1996, ISO 9002 certification for steel foundry in 1996 and ISO 14001 certification in the year 2002. Presently CLW has a capacity for production of 150 electric locomotives on a sustained basis and 750 Traction Motors per year.

2.35 The details of the budget allotment and expenditure figures of CLW for the last five years is as follows:

Year	Budget Allotment	Actual Expenditure
2000-2001	666	654
2001-2002	616	596
2002-2003	483	490
2003-2004	554	551
2004-2005	681	691

2.36 The turnover of CLW during 2002-03 to 2004-05 is as under:

Year	Item			Total
	Locos	Shop manufactured item	Others	
2002-2003	480	113	13	612
2003-2004	548	133	19	700
2004-2005	655	159	22	836

2.37 The number of orders placed on CLW by Railway Board, based on the requirements of the Railways and locomotives manufactured by CLW during the last five years and current year is as under:

Year	Target	Actual
2000-01	120	120
2001-02	90	82
2002-03	69	69
2003-04	86	86
2004-05	90	90
2005-06	128	45 (Upto Sept. 05)

2.38 When the Committee desired to know the reasons for not utilizing the installed capacity in full during the above period and scope for increasing the existing capacity of CLW, the Ministry of Railways informed that the yearly production of locomotives is based on traffic requirements and availability of funds. The present level of electric locomotive production planned at CLW is commensurate with the above criteria. Based on traffic requirement, the target for CLW has been increased to 128 locomotives for 2005-06. The present capacity

of CLW is sufficient to meet our projected requirement of the future. However, works are in progress/planned in CLW to take the installed capacity to manufacture 150 locomotives (50-3 phase locomotives and 100 conventional locomotives) per year. For 128 locomotives the requirement of traction motors will be 768. Out of these 28 locomotives will be 3 phase 6000 HP locos and their requirement of traction motors will be 168. Remaining 600 traction motors will be for conventional locomotives. CLW plans to manufacture whatever is possible and remaining traction motors will be procured from TOT partners BHEL or Crompton Greaves.

2.39 The technology used at present in CLW for manufacturing Conventional Locos of WAP 4 and WAP 7 class is based on AC traction with DC series type traction motors. In high horse power locomotives of WAP 5, WAP 7 and WAG 9 class the technology being used as obtained through Transfer of Technology from M/s ABB, is based on AC traction motors and GTO thyristor based electrics. According to the Railways it consumes less power with the result running cost has come down. The indigenisation of the items required for 600 HP locomotives has been completed. The transfer of technology has been through TOT partners such as BHEL, Crompton Greaves, Loco Shell Manufacture, CLW, etc. who are the members of industry in India. So all the equipments are either manufactured by CLW or are being ordered on TOT partners. Only a few equipments/components like GTOs are imported either from Toshiba or from ABB. During 2004-05 imported item worth Rs. 18 crore which is about 2.15 per cent to the total production was purchased by CLW.

2.40 Explaining the recent strategic projects identified by CLW for development of better and safer fleet for the Railways, the Ministry of Railways stated that the 3 Strategic Projects identified by Chittaranjan Locomotives Works (CLW) to develop better and safer fleet for the Railways are:

1. **Migration to Insulated Gate Bipolar Transistor (IGBT) Drive.** This project aims at switching over to IGBT switching elements from the existing Gate Turn-off (GTO) Thyristors. This is necessitated in view of foreseeing obsolescence of GTOs in favour of IGBTs.

2. **Migration to Standard Vehicle control Hardware.** This project aims to migrate from proprietary vehicle control units presently used in three phase electric locomotives to

International Electro Technical Commission (IEC)-61375 standardized train control network. The project envisage the use of industrially standardized hardware suitable for traction application.

3. **Migrating to IEC-61131 Standardized Programming Platform.** The project envisages to port vehicle software of existing 3 phase electric locomotives, which is based on proprietary software platform to a platform conforming to IEC-61131 standard.

2.41 The Committee desired to know the reasons for wide fluctuation in production of locomotives at the CLW during 2002-03 and 2003-04 from 69 to 86 locomotives, the representatives of the Railway Board stated:

> "They are the orders. The requirement of the Board during 2002-03 was 69 and so 69 locomotives were produced. So this is as per the order. We were given a mandate to produce 69 and so we produced 69."

2.42 The Committee further enquired as to why some of the items required in the maintenance of locomotives are being procured from outside and why these items can not be manufactured in the CLW itself when it has the capacity, the representatives of Ministry of Railways in reply stated that CLW has the capacity to manufacture those items which are now being procured from outside from BHEL, CGL etc. but certain items like transformer and some other items which is not manufactured in CLW is being purchased from the market.

2.43 The RITES is involved in various productivity studies/ incentives schemes studies in Production Units and these findings are used to enhance productivity and process efficiency in the Production Units.

2.44 RDSO, the research and design unit controls the design and development of complete rolling stock and its crucial components manufactured in Production Units as well as have a crucial role in vendor development for these items.

2.45 The target set for procurement of electric locos during X Five Year Plan and locomotives procured during the first three years of

Plan is as under:

	Target	Revised target as per mid-term review	Acquisition				Balance to be manufactured in the remaining years
			2002-03	2003-04	2004-05	Total	
Electric locomotives	343	481	69	86	90	245	236

2.46 In the Mid Term review of X Plan the target for electric locos has been revised to 481 from 343 locos. During the year 2005-06 Railways have targeted for acquisition of 128 electric locomotives. When enquired whether the production units would be able to manufacture the left out balance figures in the remaining years of X Five Year Plan, the Chairman, Railway Board stated as under:

> "In the case of electric locomotives 128 locomotives has been targeted for the year 2005-06 and the balance will be 108. We will do it easily in 2006-07."

(v) Diesel Loco Modernization Works (DMW)

2.47 Diesel Loco Modernization Works (DMW) formerly known as the Diesel Component Works (DCW) was started in 1981 for manufacturing the diesel and electric loco spare parts. This was set up at a total cost of about Rs. 163 crore, including US$ 30 million provided by the World Bank. The Unit was set up to provide maintenance support to the fleet of nearly 3800 diesel locomotives of the IR. The installed capacity of DMW is for rebuilding 72 locomotives. Rebuilding is done only of main line locomotives after 16 to 18 years service. The shunting locomotives WDS 4 and WDS 6 locomotives which are not put to that rigorous use rebuilding is not done.

2.48 The production of DMW during the last four years is as under:

Year	Loco rebuilding
2001-02	63
2002-03	73
2003-04	73
2004-05	74

2.49 As regards the enhancement of capacity in DMW to meet the increased holding of rolling stocks the Ministry of Railways have stated that the present capacity is considered adequate.

2.50 During the years 2002-03, 2003-04 and 2004-05 DMW manufactured the components and sub-assemblies (spare parts) worth Rs. 296.95, Rs. 298.27 and Rs. 311.02 crore respectively.

(vi) Rail Wheel Factory

2.51 Rail Wheel Factory (RWF) formerly known as Wheel & Axle Plant (WAP) was established at Bangalore in 1980 under a license agreement with M/s Griffin Wheel Co., USA for manufacturing Wheels and Axles with an installed capacity of 95000 Wheel Discs and 46000 Axles. Initially set up for producing freight stock wheels of 1000 mm diameter, RWF has now developed a wide range of wheels for locomotives, coaches and wagons of both BG & MG. The RWF uses the specialized pressure pouring technique for casting wheel discs. Capacity enhancement of the plant is presently undergoing to enhance the capacity to 1,15,000 wheel discs & 50,000 axles per annum.

2.52 The turnover of the unit during 2001-02 to 2003-04 is as under:

Year	Rs. in crore
2001-02	268.47
2002-03	301.76
2003-04	318.81

2.53 The following is the production of Wheels and Axles during 2001-02 to 2003-04:

Year	Wheels	Axles
2001-02	83760	35911
2002-03	101554	43322
2003-04	110407	50513
2004-05	95125	49502

2.54 While giving details about the requirement of Wheels and Axles during 2005-06 by the Railways and their procurement either

through RWF and other companies/sources, the Ministry of Railways informed as under:

Item	Requirements in number
Wheels (including wheels for wheelsets)	218739
Axles (including axles for wheelsets)	65721

2.55 Besides RWF, wheels & axles are also produced by DSP (Durgapur Steel Plant of SAIL). Presently wheels for conventional BG/MG locos, coaches and wagons are supplied by Rail Wheel Factory and Durgapur Steel Plant. Requirement of wheels of high speed loco & LHB coaching wheels (ABB& & GM locos, LHB Coaches), NG loco etc. are small and are imported as it is not economical to produce small quantities of these wheels indigenously. With the increase in population of these stocks, indigenization of these wheels will be pursued.

2.56 The following quantities of wheels and axles have been purchased/received from different sources since 2002-03:

Year	RWF		DSP		Imported	
	Wheels	Axles	Wheels	Axles	Wheels	Axles
2002-03	88822	35408	41686	6260	3654	—
2003-04	108458	44403	46122	3992	196	—
2004-05	94939	46976	61273	4708	1842	5616

2.57 Regarding the steps taken to meet the gap between requirement and actual production of Wheels and Axles, the Ministry of Railways informed that the balancing the shortfall of wheels and axles over the above the capacity of RWF/DSP are met through imports. The requirement of 218739 wheels during 2005-06 is more than the RWF and DSP capacity of 1,10,000 and 70,000 wheels respectively and shortfall of 38,739 wheels has been estimated as under:

Item	Requirement	Supplies from RWF	Supply from DSP	Shortfall and sourcing needed from other sources
All wheels combined	218739	110000	70000	38739

2.58 To make up the shortfall, Railways are importing 21640 wheels this year *i.e.* 2005-06 and RWF has agreed to make 2000 wheels more. Still there will be a shortfall of 15000 wheels.

2.59 On short term basis the gap between requirements and indigenous capacity is met through imports. For year 2005-06, tenders for shortfall quantities have been floated and are under consideration. On long terms basis Indian Railways has decided to set up one more wheel plant at Chhapra with capacity of 50,000 wheels expendable to 1 lakh wheels. The project has been included in the Rail Budget of 2005-06. Land acquisition and detailed estimate is under process. This plant will start manufacturing wheels from 2009-10 and after that there would be no import of wheels except those wheels which are used in LHB and 4000 HP locos.

2.60 While giving details about the Wheels and Axles manufactured at Rail Wheel Factory exported to other countries, the Ministry of Railways informed that they had received orders from overseas and the same were executed during the last three years and the revenue generated therefrom are as under:

(In lacs of Rs.)

Year	Product	Quantity	Country	Value
2001-02	MG Diesel Loco Axles	26	Malaysia	9.06
2002-03	Nil	Nil	Nil	Nil
2003-04	Different types of Wheels, Axles & Wheelsets	8,32,52 & 56	Malaysia	50.19
	MG Loco Wheels	200	Malaysia	39.83

Autonomy to Production Units

2.61 To grant more autonomy for marketing to non-railway customers and exports, powers of General Managers of Production Units have been increased by the Railways so that they can function better and become competitive. At present exports are done through RITES. To give more powers to the Production Units so that they could directly partake in such activities Railway Board is deliberating at present to find out a method in which more autonomy could be given to the Production Units.

Condemnation of Rolling Stocks

2.62 Rolling stocks are condemned on age-cum condition basis and in line with codal provision. In case of premature condemnation, the condition of the locomotive/EMU are surveyed by a survey committee consisting of Head of the Departments of Electrical, Mechanical and Finance Department and Processed in Railway Board for acceptance. The codal life of rolling stocks are as under:

Diesel Locos	—	36 years
Electric Locos	—	35 years
Passenger Coaches	—	25 years
Wagons	_	35 years

2.63 As on 31.03.2005 Indian Railways were having 33,792 BG passenger coaches. The number of over aged coaches out of it was 304. The overall over aged rolling stock with Railways on their system at present is as under:

Type	Total
Diesel locos	392
Electric locos	—
EMU	562
Coaching vehicles	1587*

*Provisional figures.

2.64 During the years 2002-03 to 2004-05, Railways have condemned the following over aged rolling stocks:

Type of rolling stock	2002-03	2003-04	2004-05	Total
Diesel locos	39	67	94	200
Electric locos	7	—	9	16
EMU	56	102	162	320
Coaching vehicles	1001	1354	652*	3007

*Provisional figures.

2.65 When enquired whether these over aged coaches are being used in passenger services, the representatives of the Ministry of Railways stated:

> "We are no longer using the over aged coaches for passenger services. However, these coaches are used either in relief trains or for departmental use. 13 per cent of the over aged EMU coaches are used after putting extra inputs and caring the safety aspects as the production of these coaches are less. By and large on BG these coaches are not used. All the over aged MG coaches will however be condemned within next 6 months."

2.66 Responding to the query of the Committee regarding the plan of the Railways to replace the rolling stocks in future, the Ministry of Railways have informed the following details:

Year	2006-07	2007-08	2008-09	2009-10
Coaches	687	779	950	897
EMUs	121	152	73	85
MEMU/DMUs	22	38	69	72
Total	830	968	1082	1054

2.67 Since requirement on replacement account is on a rising trend as indicated in the above table, the Ministry has further stated that there would be a need of approximately 2500 to 3000 coaches per year over the next few years after 2010 by which all the over aged stocks running on the system will be eliminated.

Staff Strength

2.68 There are a large number of vacancies almost in all the production units. The vacancies in groups C and group D categories in production units as on 01.04.2005 is given in the annexure-I. The reasons for existence of vacancies is because of restrictions put by DoPT on intake of staff as part of manpower planning exercise. As per this policy only one out of three posts falling vacant during a year is permitted to be filled up.

2.69 According to the Ministry even though the percentage of vacancies are on higher side being more than 10 per cent, the existence of vacancies itself doesn't necessarily affect production because the posts are sanctioned broadly on the basis of work load and actual

operational requirement vary from time to time depending upon the annual production target. Accordingly, action is taken to fill only those posts which are required to be filled up. These posts are not surrendered. Since due to growth in traffic the production units have to manufacture to their capacity, therefore Railways are taking action to fill these vacant posts.

2.70 When the Committee desired to know about the status of implementation of the recommendations of the Khanna Committee, the representatives of Ministry of Railways informed that the first recommendation has been accepted and the implementation is subject to availability of funds. With regard to the second recommendation regarding appointment of a task force the Committee were informed that the task force has given the report.

2.71 The Committee pointed out that under the new direction of the Government only one third of the vacant posts could be filled. When the Committee desired to know whether this would not lead to shortage of staff resulting in poor maintenance of rolling stock, the representatives of Ministry of Railways informed the Committee as under:

> "We have got instruction from DOPT regarding annual filling of vacancies. That instruction says that in any year whatever be the vacancy we cannot fill up more than 1/3rd and one percent of cadre strength whichever is less. But somehow we have not been following these instructions. This year we have gone to Cabinet Secretary again requesting him that it cannot work for us and for safety categories, we have to have exemption. This has been agreed to of late. So, for all safety categories we will be filling up posts 100% as all these maintenance posts come under safety category. We are filling up 100% posts for all these categories. It is true that we have vacancies but these vacancies are not more than 13%. We are not really short of manpower in these categories where over we are short it is in the non-safety categories".

2.72 The representative further stated that:

> "We have now given instructions to fill up all safety category posts by taking special measures. About 60,000 such posts have to be filled up now on priority basis in the Indian Railways we hope that would take care of the situation in the filed."

2.73 During the course of examination, the Committee enquired whether Railways have approached the DOPT for relaxing the norms/ instructions issued by them. The Member Mechanical, Railway Board informed as under:

> "We have approached the DOPT. Against the normal filling up of 1/3rd vacancies, we have asked for more recruitments for the next two years. We have given them a three year plan as to how many people we want to recruit. That is more than one third. DOPT is looking into it and we expect very favourable reply from them. In the meantime, as far as DLW is concerned, instead of 1/3rd vacancies we are considering giving them permission to recruit 2/3rd vacancies. CLW is concerned, total staff recruited for 150 locos. We are making 128 locos this year and we will be managing with 1/3rd filling up of vacancies for the time being."

2.74 On being asked as to why act apprentices are not recruited by the production units, Member Mechanical Railway Board to look into it and also ensured that when the production level goes up they will be definitely recruited.

2.75 Supplementing to the above the Member Staff, Railway Board informed the Committee:

> "Our cadre strength vacancy-wise comes only 156 per year. We discussed this issue with the Cabinet Secretary and we explained that we have safety vacancies and operational vacancies where it is 1:1 replacement. We have submitted him a proposal for the last five years as to what should be our annual recruitment plan".

2.76 As regards the redressal of grievances of the staff working in different production units the Ministry of Railways informed that the system of Staff Councils was introduced in Production Units in pursuance of the directives of Ministry of Home Affairs issued in July, 1954 as a result of the recommendations of the first Pay Commission for redressal of grievances of staff working in the Production Units. Staff Councils, which compromise of members elected directly by the workers themselves, represent their grievances and interests through regular meetings with the local management at the unit level. They also hold meetings with the Board once a year where policy and common issues are taken up and amicable solutions found.

2.77 Further with regard to recognition of unions in Production Units the representative of the Ministry of Railways during the course of examination of the subject informed as under:

"Staff Councils are representing the staff of the units. So, whether we call it a union or a council it does not matter. They are the representatives of the workers and they are meeting the administration for their grievances and the Railway Board also at the level of Additional Members, once in a year, a meeting does take place. The system that the representative character of the staff councils and the way and the type of grievances they are able to settle, I find no difficulty for those staff councils to really get the grievances settled. When the system is working beautifully well, I do not feel that we should have recognized unions for this purpose."

CHAPTER III

RAILWAY WORKSHOPS & SHEDS

Workshops are the backbone of the Indian Railways and are responsible for the maintenance of locomotives, carriages and wagons. Periodic overhauling of diesel and electric locos, coaches, wagons and EMUs at specified periodicity is undertaken in these workshops. These workshops are also manufacturing and repairing various components required for rolling stock maintenance in field units. At present there are 66 maintenance workshops with the Indian Railways which can broadly be categorized into following four types:

(1) Mechanical Workshops.

(2) Signal Workshops.

(3) Electrical Workshops.

(4) Engineering Workshops.

(1) Mechanical Workshops

3.2 There are 45 Mechanical workshops spread all over the Indian Railway system. The main activity of Mechanical workshop is periodic overhaul (POH) of Rolling stock such as locomotives, carriages, wagons, etc. A list of these workshops, showing their Railway-wise location is given at Annexure-II.

(2) Signal Workshops

3.3 Indian Railways have at present 10 signal workshops to overhaul the various types of signalling equipments used by Indian Railways and also manufacture various types of signalling items like relays, block instruments, axle counters, etc. A list of signal workshops and items being produced in these workshops is given in Annexure-III.

3.4 The outturn of these workshops for the last three years and the target fixed for 2005-06 is as under:

(Rs. in thousands)

Sl.No.	Railway	Workshops	2002-03	2003-04	2004-05	2005-06 projected
1	2	3	4	5	6	7
1.	Central	Byculla	125998	107931	125764	135000

1	2	3	4	5	6	7
2.	Eastern	Howrah	44700	42000	41800	52000
3.	Northern	Ghaziabad	66050	66640	85965	88500
4.	North-Eastern	Gorakhpur	131800	138900	159300	167000
5.	Southern	Dodanur	288200	290300	315000	428000
6.	South Central	Mettuguda	138872	141659	156628	180000

3.5 Target for overhauling of signalling items in the signalling workshops is fixed by railways based on work orders sent by individual Railways. The periodicity of overhauling of various types of signalling equipments used by Indian Railways is as under:

Sl.No.	Type of Equipment	Periodicity
1.	Token block instrument	Every 10 years
2.	Handle type Token less block instrument	
3.	Double line block instrument	Every 7 years
4.	Track relays, shelf type and plug-in-type	10 years
5.	Line relays, shelf type	15 years
6.	Liver frame/station master's slide	Every 3 years
7.	Point machine	7 years (on other than trunk routes)

3.6 The Committee enquired whether funds are also made available to S&T Workshops from Special Railway Safety Fund as some of the activities such as maintenance and overhauling of coaches done in these workshops are safety related works. Responding to this the Member Mechanical, Railway Board stated:

> "SRSF was meant for replacement of over aged assets. In that case, bridge, tracks, renewal of over aged rolling stocks, wagons, coaches and locomotives are there….. overhauling is a revenue budget. For that we do not require SRSF funds and there is no shortage of funds."

(3) Engineering Workshops

3.7 The various needs of engineering department of Indian Railways such as fabrication of steel structures, platform shelters, foot over

bridges, steel channel sleepers, bridge girders etc. are cater by the following 10 Engineering Workshops:

(i)	Manmad Engineering Workshop	—	East Central Railways
(ii)	Jalandhar Engineering Workshop	—	Northern Railway
(iii)	Lucknow Engineering Workshop	—	Northern Railway
(iv)	Mughalsarai Engineering Workshop	—	East Central Railway
(v)	Gorakhpur Engineering Workshop	—	N.E. Railway
(vi)	Gonda Engineering Workshop	—	N.F. Railway
(vii)	Lalaguda Engineering Workshop	—	S.C. Railway
(viii)	Sini Engineering Workshop	—	S.E. Railway
(ix)	Sabarmati Engineering Workshop	—	Western Railway
(x)	Arakkonam Engineering Workshop	—	Southern Railway

3.8 The target for the engineering workshops are decided based on capacity of workshops and the anticipated orders from various Railways and Production Units. The year-wise target/production of engineering workshops, during the last three years are as under:

	2002-03		2003-04		2004-05	
	Target	Production	Target	Production	Target	Production
Channel Sleepers (Nos.)	10,000	10968	13000	13592	7000	7185
Glued Joints (Nos.)	20,000	20,334	17,800	118,685	13,000	11090
SE J Nos.	1325	2230	1613	1716	1030	817
PSC Slabs (Cum)	4500	4375	4500	4508	4600	4700
RCC Slabs (Cum) Girders (MT)	1000	900	950	993	1000	1469
(a) Open WEB	4310	4602	4500	4418	4300	3913
(b) Plat	3235	3243	4300	4476	5000	4940
Others [FOB, Platform Shelters and minor fabrications (MT)]	10000	11220	10000	9366	10000	9311

(4) Electrical Workshops

3.9 Railways are having five Electric Loco workshops located at Bhusawal, Kharagpur, Perambur, Kancharapara and Charbagh to carry out periodic overhaul of electric locomotives and one Traction Machine Workshops at Nasik Road to repair and rewinding of traction motors. Mid term rehabilitations of electric locomotives, is done at Dahod Workshop. According to the Railways, these workshops are fully utilized. Every year capacity requirement for next two to three years and type of augmentation of capacity required is planned by them.

3.10 The POH of electric locomotives carried out during 2002-03 to 2004-05 and targeted for 2005-06 is as under:

Workshop	2002-03		2003-04		2004-05		2005-06
	Target	Actual	Target	Actual	Target	Actual	Target
Bhusawal	114	113	124	130	137	137	130
Kancharpara	58	51	77	62	82	72	78
Perambur	40	36	55	49	60	52	61
Kharagpur	41	36	52	46	57	57	59
Charbagh	23	18	24	18	31	18	29
Dahod	20	20	30	18	48	24	47
Total	296	274	362	323	415	359	404

3.11 The above table reveals that except in case of Bhusawal Workshop in all other workshops the actual POH carried out is less as against the target fixed in each year. Giving results for lesser POH done particularly in Dahod workshops, the representatives of the Railway Board stated:

> "At Dahod alongwith POH, we are doing mid-life rehabilitation also. Our intention was to do 30 mid-life rehabilitation in 2003-04 but we could do 18 only because we were not ready. Similarly it the next year also, we wanted 48 but we could increase it from 18 to 24. So, at Dahod, we want to do mid-life rehabilitation for 48 per year. In another one year, we will be ready with 48. We do the planning every year that how many locomotives will fall due POH and how many are to be done. Sometimes, due to exigency of traffic, more locos are required and we have to defer the POH for a few months or so, so that

we are able to lift the traffic. For doing so, we do a good maintenance of these locomotives so that they are safe."

3.12 To bring out improvement in workshops and maintenance depots several works are undertaken by Railways specially in the following areas:

(i) Construction of examination pits.

(ii) Construction of pathways for train examination.

(iii) Better flooring and lighting.

(iv) Improvement in systems and design areas.

(v) Improvement in material handling facilities.

(vi) Provision of important jigs, fixtures, modern machines and test equipments.

(vii) Obtaining ISO 9000 certification with the objective of improving quality.

3.13 Budgetary allocation for workshops consist of two parts, expenditure under revenue to meet the requirements of funds for manufacture and repair activities and expenditure for creation for infrastructure on a need base. The year-wise funds allocated to various workshops under the plan head 'workshops—including production units' of Demand No. 16—Assets, Acquisition, Construction and Replacement in the Budget for the years 2002-03, 2003-04, 2004-05 and 2005-06 are given in Annexure-IV.

3.14 The expenditure on infrastructural improvements in workshops and maintenance depots under Plan-head 42 (workshops and Production Units) for the last three years and funds allocated this year are given below:

(Rs. in crores)

Deptt.	Expenditure 2002-03	Expenditure 2003-04	Expenditure 2004-05	Funds allotment 2005-06
Mech.	144.82	129.36	124.88	270.54
Signal	0.34	0.77	1.70	2.47

3.15 The capacity workload and target for the mechanical workshops are reviewed annually by the Railway Board and for engineering, signal and electrical workshops, the review is done periodically by Railway Board and Zonal Railways. Accordingly target is fixed for each workshop taking into account the infrastructure and manpower available and also the progress of capacity of augmentation works availability of additional manpower.

3.16 Railways workshops were modernized with the World Bank Assistance in Phase-I and Phase-II in 1980s. The modernization was done of those workshops which were primarily dealing with coaching stock. The objective of modernization of workshops was to reduce POH cycle time, increase POH capacity of rolling stock and replace overaged machinery and plants. In the first phase Matunga, Kanchrapara, Kharagpur and Lower Parel workshops were modernized. In Phase-II Parel, Lilluah, Jagadhri, Golden Rock, Kharagpur and Ajmer workshops were modernized.

3.17 When enquired how much time has been reduced in periodic overhauling after modernization, the Member, Mechanical Railway Board stated:—

> "The POH for coaching stock use to be 15 days which has now been brought down to 9 days as a minimum time. The Kanchrapara there has been some reduction in POH of electric locos. It is something around seven per month."

3.18 On being asked whether there was any plan/programme for modernization of workshops after Phase-I and Phase-II modernization, Member, Mechanical Railway Board stated:—

> "We require modernization for machinery and plants which were done mostly in Phase-I and Phase-II and also some shed structures for modernizing the things. Now, we get sufficient money out of our own capital budget under DRF, whether it is machinery and plant or roof structure of sheds etc. we get money out of our funds. We are able to achieve that by our own funds. The allotment of funds made every year to the each workshops under the Plan-head including the production units. So whatever is required for modernization or to correct the situation, it is from this money we give."

COFMOW

3.19 The Central Organisation for Modernization of Workshops (COFMOW) was established in 1979 for modernization of workshop

and dealing with the modernization programme which includes procurement of high value machineries also. At present, COFMOW is doing procurement of machines and plants (M&P) and studies for maintenance of sub-system in workshops as to how to improve them and other.

3.20 When the Committee desired to know as to what were the main functions of COFMOW, the Member Mechanical, Railway Board informed the Committee that its main function was to prepare reports for works related to various sub-assemblies as well as procurement of machinery of higher value for the workshop and sheds.

3.21 On being asked whether the COFMOW planned for replacement and modernization where replacement of old machinery is required, the Member Mechanical, Railway Board stated:—

> "COFMOW does not do, but we do in our own at Board level. We get the feed back from all the workshops as to what they require. We give them funds."

3.22 The Committee further desired to know as to why the responsibility of modernization of workshop is not entrusted to COFMOW. Responding this, the Member Mechanical, Railway Board stated:—

> "We should do so. We should expand its activity for which it was meant and which it is not doing."

CHAPTER IV

MAINTENANCE OF ROLLING STOCK

The safety of Train operations is dependent on proper maintenance of tracks, rolling stock and other Railway assets. These are required to be maintained and replaced at constant intervals for smooth and safe train running. The progressive modernization of Railway assets can provide qualitative service to its customers. Hence, maintenance of Rolling Stock is of paramount importance for smooth, efficient and safe running of whole railway system.

4.2 The present holding of the Rolling Stock of Indian Railways is 2,28,170 wagons(units), 40,781 coaches and 7,817 locomotives and are running 13,684 trains daily, including 8,622 passenger trains.

Primarily maintenance sheds take care of the running maintenance. When as equipment is out on line, it requires periodical checks as per laid down schedules. The maintenance sheds are meant for undertaking running maintenance of locomotives both diesel and electric as well as EMUs.

4.3 The maintenance work of rolling stock is primarily of two types depending upon the periodicity and scale.

(1) Scheduled Maintenance.

(2) Non-Scheduled Maintenance/Special Repairs.

(1) Scheduled Maintenance

Periodic Overhauling (POH)

4.4 The diesel locomotives, DMU, all freight stocks etc. are given periodic over hauling (POH) at various workshops nominated for this purpose at prescribed intervals. Such overhauls consist of lifting, thorough examination of all parts and execution of such repairs as may be necessary. The detailed procedures for undertaking POH is indicated in the Railway's manual/RDSO's instructions, rule's book. Depending upon the design and usage of stocks, different periodicity of schedule has been prescribed for different types of stocks.

4.5 The periodicity of POH/IOH/ROH* of different types of rolling stocks is as under:

Type of rolling stock	POH	ROH/IOH
Wagons		
1. BCNA, BTPN, BOBRN, BOBYN, BLC and BCCNR.	6 years.	
2. Other than above mentioned types.	4.5 years	
3. BCNA, BTPGLN, BOBRN, BOBYN, BLAC and BCCRN.		24 months
4. Other than above mentioned types		18 months
Coaches		
1. High Speed coaches months whichever is earlier	4 lakh KMs of 18 or 9 months whichever is earlier.	2 lakh KMs
2. All other AC coaches	12 months	
3. PCVs and OCVs used on Mail/Express trains	12 months	
4. PCVs and OCVs other than mail/Express trains	18 months	
5. OCVs other than Mail/Express trains	24 months	
6. LHB type coaches	24 months	12 months
Diesel Locos	8 years of 10 lakh KM	4 years
Electric Locos		
1. Convention (Freight)	9 years or 12 lakh KM whichever is earlier.	4.5 years or 6 lakh Km whichever is earlier
2. Convention (Passenger)	6 years or 8 lakh KM whichever is earlier	3 years of 4 lakh KM whichever is earlier
3. 3-Phase (Freight)	12 years or 18 lakh KM which-ever is earlier	6 years or 8 lakh Km whichever is earlier
4. 3-Phase (Passenger)	9 years or 18 lakh KM whichever is earlier	4.5 years or 10-11 lakh KM whichever is earlier

*POH—periodical Overhaul, IOH—Intermediate Overhaul, ROH—Routine Overhaul.

4.6 The Ministry of Railways had informed that the time taken for POH of rolling stocks in various workshops is closely monitored at the level of workshop in charge and zonal railways. The average time taken for POH is as below:

Coaches	:	9 to 29 days
Diesel Locos	:	18 to 37 days
Electric Locos	:	27 to 52 days
Wagons	:	5 to 15 days

4.7 When a rolling stock is sent in the workshop for periodic overhaul or other specified attention, a pre-inspection is carried out by inspection organisation and based on that pre-inspection all major and minor sub-assemblies of rolling stock are replaced/repaired. Unlike coaching stock or locomotives, freight stocks have no fixed maintenance base.

4.8 According to the Ministry the time taken for POH for each type of rolling stock varies from workshop to workshop depending upon the local conditions and working environment such as availability of infrastructure, manpower, condition of the particular rolling stock and involvement of work for meeting the repair requirements of rolling stock. Further, the Ministry informed that in the case of a wagon there are a very less number of components, the major job is repair of corrosion and change of sheets. In the case of locomotives there are major components, the whole power pack has to be brought down and a lot of repair works is required to be done on that. Therefore, locomotives takes a lot of time depending upon the condition of the components.

Other Schedule Maintenance

4.9 All diesel locos/self propelled vehicles are given scheduled maintenance at prescribed interval at various nominated sheds/depots, having proper facilities for the purpose. Such schedules consists of attention to various components, topping of consumables, change of components if necessary and checking of safety fitting etc.

(2) Non-Scheduled Maintenance/Special Repairs

4.10 In case, locomotive/Self Propelled Vehicle met with accident/fails, the repair is undertaken at Shed/Depot or in Workshop upon the extent of work involved. In case of major work, it is attended in workshop otherwise in Diesel Shed/Depot.

Petty Repairs

4.11 These are the repairs which involve not more than 8 man-hours. Such repairs are normally carried out on nominated lines in traffic yards.

Medium Repairs

4.12 These are the repairs which involve more that 8 man-hours and up to 100 man-hours. These normally cover repairs to under frame members *viz*. head stock, middle bars, sole bars, changing of axle guards, wheel changing, heavy panel patching, heavy floor repairs, etc. Such repairs are carried out in sickliness.

Special Repairs

4.13 These are repairs to heavily damaged wagon involving more than 100 man-hours. Such repairs are carried out either in the workshops or in major sick lines.

Routine Over Hauling (ROH)

4.14 All freight stocks are given routine over hauling (ROH) at prescribed intervals at various nominated depots or major sickliness provided with proper facilities for this purpose. ROH depots have been categorized based on the availability of infrastructural facilities and Railways has made master plan to upgrade such sickliness.

Regular Maintenance During Train Examination at Yards

4.15 Freight stocks are given maintenance in trains formation at various nominated yards at the time of train examination. Two types of examination as explained below is carried out:—

A. Intensive Freight Train Examination

4.16 In this type of train examination, freight trains are examined thoroughly at nominated yards provided with proper facilities to ensure safe and reliable movement of freight trains up to the destination or up to a specified distance depending upon the pattern of operation. Petty repairs are carried out in the yards during the time of examination. Wagons requiring scheduled maintenance, heavy or major repairs are detached from the formation and moved to nominated workshops/ROH depots/sickliness depending upon the nature and extend of attention required. Brake power Certificates (BPCs) are issued to the freight trains after such examinations which remain valid, either

up to the destination or for a specified travel distance, depending upon the pattern of operation for which the examination has been undertaken.

Intensive Examination of freight trains for End to End operation

4.17 In this pattern, BPC is issued after intensive train examination at nominated yards, which remains valid up to the destination mentioned on the same. Fright trains running on End to End pattern do not have fixed maintenance bases.

Safe to Run Freight Train Examination

4.18 In this type of train examination, running safety of the freight trains is examined. Generally, neither repairs are carried out nor BPCs are issued in/after this type of examination. Some examples of safe-to-run examination are rolling-in-examination, examination after tippling, examination after loading etc.

B. Intensive Examination of freight trains for closed Circuit Operation

4.19 In this pattern, BPC is issued after intensive train examination at nominated yards (CC bases), which remains valid for a specified travel distance. The general kilometre limit for closed circuit trains is 4500 kms. Now, based on infrastructural facilities, closed circuit maintenance bases have been categorized and 'A' category CC bases have been permitted to certify CC rakes for extended run upto 6000 kms. between two successive intensive examinations. Closed Circuit (CC) rakes are operated on a predefined circuit and are used for multiple loading, normally over short leads. The integrity of the rakes, which are maintained at fixed maintenance bases, is kept intact. CC bases have been categorized based on the availability of infrastructural facilities and a master plan has been made to upgrade such bases.

C. Maintenance of Passenger Coaches

4.20 Maintenance of passenger coaches to meet desired level of safety, reliability and passenger comforts is one of the foremost challenges before the Indian Railways. Simultaneously, the endeavour of the Railways is also aimed at maximizing availability of coaches to fulfil ever rising demands from travelling public. This objective is being achieved through a two level maintenance concept. While, the scheduled repairs including over hauls and mid-life rehabilitation are planned and monitored on the basis of individual coaches; the running maintenance in the form of train examination is carried out on rake

basis. According to Railways a judicious mix of these two elements and their rationalization has enabled them to meet the growing challenges.

SYSTEM OF MAINTENANCE

Running Maintenance & Coach Cleaning

4.21 The running maintenance to the rakes is carried out in the washing lines of the coaching depot which are equipped with facilities like pit and drainage, pressurized water supply, power supply, air and vacuum pipe lines and proper lighting. Primary and Secondary maintenance is carried out on the rakes in this facility and required repairs are done to ensure that the rake meets desired standards of safety, reliability and passenger comfort. Guidelines are there for ensuring that adequate time is provided for maintenance at the end of each journey. Repairs of heavy nature which require detachment of coaches from the rake are carried out in the integrated sick line facility of the coaching depot which is equipped for electrical as well as mechanical repairs.

4.22 Besides, a system of platform examination also exists which provides passing through examination to the through trains at nominated locations and terminating examination at the terminals. These examinations are essentially for detection of abnormalities, provision of watering and cleaning services.

Coach repairs

4.23 Coach maintenance depots undertake periodic preventive maintenance schedules as well as unscheduled repairs which are beyond the capability of washing line facility. Periodic overhaul of the coaches is carried out at the nominated Railway workshops. Indian Railways have also set up mid life rehabilitation shop at Bhopal where coaches of certain age profile are given major inputs. The various stipulated schedules are given below:

Sl.No.	Type of Schedule Open Line	Periodicity
1	2	3
1.	Trip Schedule	At the end of each trip or as prescribed
2.	Schedule 'A'	Monthly
3.	Schedule 'B'	Monthly

1	2	3
4.	Schedule 'C'	3 Monthly
5.	IOH for BEML coaches	6 Monthly
6.	Special Schedule	As prescribed by each Railway
	Workshops	
7.	POH of high speed coaches	4 lakh kms. or 18 months, whichever is earlier
8.	IOH of Rajdhani/Shatabdi type AC coaches	2 lakh kms. or 9 months, whichever is earlier
9.	POH for all other AC coaches	12 months
10.	POH of PCVs and OCVs used on M/E trains	12 months
11.	POH of PCVs and OCVs other that M/E trains	18 months
12.	POH of OCVs other than M/E trains	24 months

POH — Periodical Overhaul
IOH — Intermediate Overhaul
PCVs — Passenger Carrying Vehicles
OCVs — Other Coaching Vehicles
M/E — Mail/Express

Schedule for LHB type coaches

Sl.No.	Type of schedule	Periodicity
1.	T	Trip
2.	Q	3 Monthly
3.	IOH	Yearly
4.	POH	2 Yearly

4.24 When asked to elaborate the Monitoring Mechanism followed by the Indian Railways to ensure that the Maintenance of Rolling Stock is done appropriately without compromising with the safety aspect the Ministry of Railways in their written reply submitted that

maintenance of rolling stock is ensured through an elaborate system of preventive checks base of time and usage of rolling stock. These checks are in the form of maintenance schedules which are carried out by loco sheds, pit & sick lines and train examination points. In the open line depots & workshops there is an additional system of neutral trains examiners which ensured that only safe rolling stock is allowed to be turned out. These systems are constantly monitored & reviewed at the Divisional, Zonal & Board's level.

4.25 When asked about the schedule of overhauling, the representative of Railway Board informed that for diesel locomotives they are doing overhaul in shops at an interval of 8 years. For all other schedules which is either trip or quarterly or monthly and upto 4 yearly it is done in the sheds. For electric loco which are given to POH for 9 years schedule upto 4 years 6 months schedule are done in the sheds and for locomotives doing 12 yearly overhauling upto 6 yearly schedules are done in the sheds. For EMUs Periodic overhauling is normally done at an interval of 1 year 6 months. Schedules below that 1 years 6 months interval is being done in the sheds.

4.26 While responding to the query of the Committee about the number of rolling stocks which could not be taken up for POH/IOH/ ROH and are overdue and still running, the Ministry of Railways inform that Indian Railways have been generally able to undertake the workload of POH of all the rolling stock over the last five years. Running of rolling stock, which is overdue POH, is not allowed under normal circumstances. However, in certain cases, such running can be allowed only after mandatory maintenance attention for such overdue has been given so as to ensure safe operation of the trains, *e.g.*, coaches can be run up to three months after POH due date if prescribed maintenance attention is given. Detailed instructions for this purpose are available. This has been achieved by regular monitoring of these overdue figures and ensuring quicker transit of rolling stock from open line depots to POH workshops.

4.27 When the Committee desired to know whether the periodicity of overhaul/maintenance was strictly maintained the representatives of Ministry of Railways replied in affirmative.

4.28 Asked about the life span of the locomotive EMUs, MEMUs, DEMUs etc. after overhauling and the number of times they undergo POH, the Ministry of Railways informed that Locomotives can undergo periodic overhauling depending upon its usage about 3 to 5 times in their life cycle. Actual number of overhauls depends on the type of locomotive and the nature of usage.

4.29 The Committee referred to the recommendations made by the Khanna Committee with regard to maintenance of rolling stock. Khanna Committee had specifically recommended that:

(i) Adequate and standard maintenance facilities should be provided at all coaching depots on high priority.

(ii) A Task force should be appointed to identify the short comings, work out the investment and produce a time bound plan within a period of 6 months.

ANNEXURE I

VACANCIES IN VARIOUS GR. 'C' AND GR. 'D' CATEGORIES IN PRODUCTION UNITS AS ON 01.04.2005.

Production Unit	Group 'C' Staff			Group 'D' Staff			Total Group 'C' and Group 'D' Staff		
	SS	VAC	%	SS	VAC	%	SS	VAC	%
CLW	12066	1807	14.98	3334	84	2.52	15400	1891	12.28
DLW	5388	860	15.96	1603	275	17.16	6991	1135	16.24
DMW	3379	320	9.47	733	181	24.69	4112	501	12.18
ICF	11730	1109	9.45	2405	215	8.94	14135	1324	9.37
RCF	5829	536	9.20	1250	128	10.24	7079	664	9.38
RWF	1765	68	3.85	564	52	9.22	2329	120	5.15
Total	40157	4700	11.70	9889	935	9.45	50046	5635	11.26

ANNEXURE II

LIST OF RAILWAY WORKSHOPS

RLY.	S.No.	Name of Workshop
1	2	3
CR	1.	Kurduwadi
	2.	Matunga
	3.	Parel
ER	4.	Jamalpur
	5.	Kanchrapara
	6.	Lilluah
ECR	7.	Samastipur
EcoR	8.	Mancheswar
NR	9.	Alambagh
	10.	Amritsar
	11.	Charbagh
	12.	Jagadhari
	13.	Kalka
NCR	14.	Jhansi
	15.	Rail Spring Karkhana, Sithouli
NER	16.	Gorakhpur
	17.	Izzatnagar
NFR	18.	Dibrugarh
	19.	Lumding
	20.	New Bongaigaon
	21.	Tindharia

1	2	3
NWR	22.	Ajmer
	23.	Ajmer
	24.	Bikaner
	25.	Jodhpur
SR	26.	Golden Rock
	27.	Guntapalli
	28.	Perambur (Carriage)
	29.	Perambur (Loco)
SRC	30.	Lalaguda
	31.	Tirupati
	32.	Kharagpur (Wagon)
SER	33.	Kharagpur (Loco)
	34.	Nagpur
SECR	35.	Raipur
	36.	Hubli
	37.	Mysore
WR	38.	Bhavnagar
	39.	Dahod
	40.	Junagarh
	41.	Mahalaxmi
	42.	Parel
	43.	Pratapnagar
WCR	44.	Bhopal
	45.	Kota

ANNEXURE III

SIGNAL WORKSHOPS

Sl.No.	Railway	Name of Location	Items being Produced
1	2	3	4
1.	CR	Byculla	Apart from repairing/overhauling various signalling equipments the workshop manufactures various types of relays, block instruments, Point Machine RT, Axle Counter.
2.	ER	Howrah	Apart from repairing/overhauling signalling items the workshop manufactures various types of Block Instrument, various mechanical signalling items/T/F Battery chargers, Pre-wired Relay/Cable Term, Rack, Relays etc.
3.	NR	Ghaziabad	Apart from repairing/overhauling various signalling items, the workshop manufactures various mechanical signalling items. T/F Batt. Charger, C/L signal of sorts, ESR, Track lead Jn. Box.
4.	NER	Gorakhpur	Apart from repairing/overhauling signalling items the workshop manufactures Q-Series Relay, Point Machine RT.
5.	SR	Podanur	Apart from repairing/overhauling various signalling equipments the workshop manufactures various types of relays, block instruments, Point Machine RT, Axle Counter.
6.	SCR	Mettaguda	Apart from repairing/overhauling various signalling equipments the workshop manufactures various types of relays, Point Machine RT, various types of Block Instruments, Axle Counter.

1	2	3	4
7.	SER	Signal Workshop/ Kharagpur	Repairing W/Shop, Not a Production W/Shop.
8.	WR	Signal Workshop/ Sabarmati	Apart from repairing/overhauling various signalling equipments the workshop manufactures various mechanical signalling items.
9.	NWR	Signal Workshop/ Ajmer	Apart from repairing/overhauling various signalling equipments the workshop manufactures various mechanical signalling items.
10.	NFR	Signal Workshop/ Pandu	Repair workshop only.

ANNEXURE IV

WORKSHOP-WISE FUND ALLOCATION FOR PLANHEAD 42 WORKS

(Figures in Rupees Thousands)

Railway	Location	Description	2002-03	2003-04	2004-05	2005-06
1	2	3	4	5	6	7
Civil						
NR	Lucknow	Satellite workshop for track temping machine.	0	0	1000	5570
NR	Tughlakabad	Zonal TT workshop for scheduled maintenance of track machines over Northern Railway.	14137	—	—	—
SCR	Rayanapadu	Central Periodical Overhauling workshop for track machines.	0	0	1000	1000
SR	Royapuram	Intermediate overhauling workshop/zonal base depot for track machine.	0	0	0	500
		Total	14137	0	2000	7070
Electrical						
CR	Bhusawal	Setting up POH facilities for 3-phase AC electric locomotives	5000	10000	1000	6360
		Total	5000	10000	1000	6360
Mechanical						
CR	Matunga	Extension of inspection pitline 1 & 2 for EMU POH.	4219	—	—	—
CR	Matunga	Replacement of traversor track No. 3 and concrete flooring with sump maintenance of traversor.	8774	—	—	—
CR	Matunga	Augmentation in AC coach & EMU of POH capacity with rationalisation of work flow in Matunga workshop.	25000	10000	8000	11203
CR	Matunga	Replacement of old and corroded water pipeline.	0	0	500	12469

1	2	3	4	5	6	7
CR	Matunga	Improvement to industrial sheds Nos. 1 to 9 EMU inspection shed, pitline with shed and store shed.	0	0	0	20000
CR	Parel	Workshop-Manufacture of 140 ton diesel hydraulic high capacity breakdown cranes.	3368	5000	3000	11550
CR	Parel	Workshop-Facilities for in-house manufacture of composite brake blocks.	6000	15000	3000	20000
CR	Parel	Setting up the facilities for POH of 25 BG non AC coaches per month.	0	0	2000	38000
ECO	Mancheswar	AC coach POH capacity of 5 coaches per month.	11930	17150	5649	4907
ECO	Mancheswar	Additional POH capacity.	0	100	500	30000
ECO	Mancheswar	Setting up of Central and Metallurgical laboratory analysis at Mancheswar workshop.	0	0	186	2000
ECR	Hamaut	Setting up of workshop to undertake POH of upto 50 coaches.	0	161300	150000	300000
ER	Jamalpur	Facilities for POH of BOX wagons.	37660	11194	23932	7872
ER	Jamalpur	Workshop-Augmentation of POH of BOXN wagons to 900 FWU (Phase-II).	35	20025	30000	32276
ER	Jamalpur	Installation of effluent treatment plant for controlling industrial pollution at workshop.	3000	10000	12700	7700
ER	Jamalpur	Infrastructure for manufacture of wagons.	0	0	1000	10000
ER	Jamalpur	Improvement of infrastructure by changing roof sheets, gutters, rain water pipes, perplex sheets etc.	0	0	0	10000
ER	Kancharapara	Industrial pollution control measure at workshop.	4000	500	—	—

1	2	3	4	5	6	7
ER	Kancharapara	Enhancement of capacity of Kancharapara workshop to undertake POH of 26 Motor coaches and 52 Trailor Coaches.	0	0	500	25000
ER	Kancharapara	Thorough replacement of cost iron sheets with aluminium sheets.	0	0	0	10000
ER	Liluah	Augmentation of POH facilities for increased outturn of conventional coaches (including AC) from 205 to 235.	44453	49722	48324	21257
ER	Liluah	Complete renovation of roof gutters and RW pipe of 'L' & 'B' shops by aluminium and replacement of north light glass.	3307	5302	—	—
ER	Liluah	Industrial pollution control measures in C&W workshop.	4000	10000	10631	500
ER	Liluah	Renovation of roof, gutter, rain water pipes and night light glasses of bay 1 to 3 of 'F' shop, 6 bays of 'J' shop, shed over line No. 8 to 11 of MR Bhar.	0	0	1000	417
ER	Liluah	Hardonite Industrial flooring including P. Way renewal of (a) Body lifting bays and bogie shop (3 bays) alongwith provision of sub stores.	0	0	1500	16000
ER	Liluah	Augmentation of POH facilities for increased outturn of 20 AC coaches per month.	500	—	—	—
NCR	Jhansi	Augmentation of facilities for POH of tank wagons etc.	7103	—	—	—
NCR	Sithouli	Rail Spring Karkhana-Additional infrastructure facilities for manufacture of FIAT & IR 20 bogie spring.	10000	5000	4420	39700
NER	Gorakhpur	Augmentation of POH capacity of BG AC coaches	55000	35000	60000	4000
NER	Gorakhpur	Mechanical Workshop-Augmentation of BG coach POH capacity from 125 to 175 coach per month.	10	10000	40000	3000

1	2	3	4	5	6	7
NER	Izzatnagar	Improvement in quality of roller bearing maintenance and layout of wheel repair at Mechanical workshop.	0	350	2141	7390
NF	Dibrugarh	Workshop-Creation of capacity of BG AC coaches.	13969	1000	—	—
NF	Dibrugarh	Workshop-Augmentation of facilities & infrastructure for increasing the POH out turn of BG coaches.	120	44154	21500	1000
NF	New Bongaigaon	Inspection/Overhauling/maintenance of air brake coaches/components and roller bearing of wagons.	2703	7279	—	—
NF	New Bongaigaon	Modernisation of workshops.	0	0	10000	25000
NF	New Bongaigaon	Replacement of existing indoor type BOCB by outdoor type VCB.	0	0	5442	500
NR	Alambagh	Enhancement of POH capacity by 10 coaches per month.	0	0	0	100
NR	Amritsar	Hardonite flooring in various shops.	0	0	1500	3833
NR	Charbagh	Improvement of quality and refurbishment of plan for loco workshop.	4901	5000	7960	2739
NR	Charbagh	Augmentation of electric loco POH capacity from 2 to 4 locos and facilities for POH of 24 FWUs of DMUs/month.	8000	16500	10000	17629
NR	Jagadhri	Workshop-Enhanced AC POH capacity.	33223	6860	9465	—
NR	Jagadhri	Workshop-Extension of carriage repair lifting shop towards Saharanpur.	1000	6000	4636	—
NR	Jagadhri	Facilities for POH of BLCA wagons and Pucca road for stabling yard.	0	200	6000	10859
NR	Jagadhri	Upgradation of coach POH and maintenance facilities alongwith modernisation of store depot and electrical cabling.	0	200	30000	9000

1	2	3	4	5	6	7
NR	Jagadhri	Extension of wheel assembly and repair shop towards west side of Ambala	0	0	2000	6434
NR	Jagadhri	Replacement of RCC purlins with steel purlins and AC sheets of CR lifting and WR 8 wheeler shop.	0	0	0	5000
NR	Lucknow	Replacement/renovation of roof sheets doors etc. in loco shop Charbagh and CNW shop Alambagh.	10985	4257	4308	—
NWR	Ajmer	POH of BG diesel locomotives.	0	100	18900	31077
NWR	Ajmer	Reroofing, pathways, drainage, flooring, track, shed and gantry etc.	0	0	10000	14500
NWR	Ajmer	Complete overhauling of traverser path in carriage and wagon shops.	0	0	2000	6281
NWR	Jodhpur	Workshop-Enhancement POH capacity of coaches.	5990	10000	88556	34072
SCR	Lallaguda	Augmentation of AC coach POH capacity from 7 to 12 coaches and creation of capacity for POH of 13 FWUs of DMUs and 30 FWUs/Month.	500	20000	18200	19950
SCR	Rayanapadu, Guntupalli	Wagon workshops-Development facilities for maintenance of high capacity draft gear.	73	2574	4017	—
SECR	Raipur	Workshop-Augmentation of wagon POH capacity from 800 to 1000 FWU/month.	10000	16508	2774	9989
SER	Kharagpur	Augmentation of POH capacity of EMU coaches from the existing capacity of 8 coaches to 260 coaches.	5500	10670	572	—
SER	Kharagpur	Workshop-Augmentation of POH capacity of AC coaches.	10954	4525	—	—
SER	Kharagpur	Workshop-Creation of facilities for antipollution management system.	4861	1613	—	—

1	2	3	4	5	6	7
SER	Kharagpur	Workshop-Setting up of Roller bearing section in wheel shop.	—	2884	3001	1446
SER	Kharagpur	Workshop-Replacement of roof sheet (Ph. III).	18098	6747	—	—
SER	Kharagpur	Upgradation of facilities in carriage shop and extension of sheds of shop No. 36 and joining of sheds in wagon shop.	0	0	500	3000
SER	Kharagpur	Upgradation of maintenance and office facilities in wagon shop.	0	0	1250	6500
SR	Perambur	Carriage & Wagon shops—Additional facilities for reduction in POH cycle time of AC/Non-AC coaches.	32000	10500	10000	—
SR	Perambur	Augementation of coach POH capacity to 60 FWUs per month	17500	3500	—	—
SR	Perambur	Modernisation of electrical shop, Perambur on tecno economic basis.	0	500	100	2000
SR	Perambur	Loco works—New test house for CMT lab.	0	5000	3379	—
SR	Perambur	Creation of infrastructure facilities to control water and air pollution at various shops of loco works.	0	0	100	1000
SR	Perambur	Carriage and Wagon works—Construction of effluent treatment plant with pipe line arrangements at 4 locations.	0	0	100	1000
SR	Perambur	Creation of infrastructure facilities of bogie repairs, train lighting and roller bearing activities.	0	0	1000	500
SR	Ponmalai	Workshops-Facilities for elimination of essential infrastructural inadequacies for BG & MG rolling stock POH.	5541	8500	4580	23137
SR	Ponmalai	Effluent treatment plant and drainage arrangements.	0	0	1000	2000

1	2	3	4	5	6	7
SR	Ponmalai	Complete renewal of flooring and ralls in A and B traversors.	0	0	500	14500
SR	Ponmalai	Augmentation of AC coach POH facilities from 2 to 10 coaches per month.	13239	—	—	—
SWR	Hubli	Workshop-Additional facilities to cater to carriage POH activities.	10100	4500	—	—
SWR	Hubli	Conversion of workshop to BG for POH of carriages.	800	—	—	—
SWR	Mysore	Workshops-Creation of facilities for POH of 6 BG AC coaches.	20000	10000	4000	500
SWR	Mysore	Workshops-Renewal of roof sheets for Bogie Repair and carriage lift shops.	0	100	4900	100
WCR	Bhopal	Workshop-Facilities for mid-life rehabilitation of AC coaches and augmentation of facilities for 300 POH outtum of coaches.	5000	10000	8500	1000
WCR	Bhopal	Carriage repair workshop—Augmentation of facilities for enhancing MLR outtum capacity of coaches from 300 to 500 coaches per year.	0	150	33000	1000
WCR	Bhopal	Augmentation of capacity for MLR of coaches from 500 to 750	0	0	0	500
WCR	Kota	Workshop-Augmentation of facilities for handling LPG tank wagons.	0	150	500	9142
WR	Dahod	Partial replacement of vaccum brake wagon facilities with air brake facilities.	0	0	0	500
WR	Lower Parel	Augmentation of BG AC coach POH facilities.	0	1200	61106	88800
WR	Lower Parel	Facilities for overhauling of new generation coaches including 26 m long coaches	0	0	0	500

1	2	3	4	5	6	7
WR	Mahalaxmi	Heavy repairs to drainage, shop roof, ACC sheets, pit line, service building etc. in workshop.	0	0	100	19809
		Total	463416	586814	804429	1020138
		Grand Total	482553	598814	807429	1033568

(Fig. in Rs. thousands)

The year-wise allocation of funds allocated to Signal workshops is as under:

(Figures in thousands)

Sl.No.	Railway	Workshop	2002-03	2003-04	2004-05	2005-06 (projected)
1.	Central	Byculla	125049	128880	142260	145000
2.	Eastern	Howrah	73600	70000	75500	78600
3.	Northern	Ghaziabad	83500	80900	87100	91200
4.	North Eastern	Gorakhpur	184000	169600	184200	183800
5.	Southern	Podanpur	321962	302804	351348	428000
6.	South Central	Mettuguda	132291	132027	163200	178000

RECOMMENDATIONS/OBSERVATIONS

The Railways meet their requirement of rolling stocks through its 6 production units located at different places in the country. The adequacy of rolling stock comprising of locomotives, coaches and wagons along with its upkeep and optimum serviceability are utmost important for efficient operation of the system. Rolling stock needs to be augmented and upgraded constantly with modern and fuel efficient ones so as to meet effectively the needs of growing traffic and to keep pace with growing economy of the country.

2. The Committee find tremendous scope for growth of passenger as well freight traffic taking into account the higher trajectory of national economy. During the evidence the Committee were informed that in the year 2004-05, the passenger growth was 6 per cent as against the annualized passenger growth of 3 per cent in the previous decade and in the current year also Railways expect to sustain the same. In freight traffic Railways expect to achieve 675 million tonne of loading in 2005-06. The Committee further notice that the Railways are now on a high growth path and national economy is also picking up. Demands will be much more once the quadrilateral sections are modernized and electrified. In such a scenario Railways need more rolling stock commensurate with traffic growth. They also note that the Railways have projected to acquire 9160 coaches and 1745 EMUs during the 10th Plan Period. During the first three years of 10th Plan, the Railways could acquire only 5957 coaches and 397 EMUs. Though Railways are going to achieve the coach targets but in case of EMUs, Railways would have a shortfall of 800 at the end of the Plan. The Committee were also informed that this shortfall will be made up by 2008-09. The Committee further notice that the Railways are presently using 562 over aged EMUs after putting extra inputs to cope up with shortfall. They are of the view that the Railways are not planning their requirement of rolling stock in right perspective by taking into account the future growth trajectory in traffic and requirement on account of condemnation of old stock etc. They, therefore, recommend that the Railways should prepare a perspective Plan with regard to their requirement of rolling stock for the next 10 years holistically so that increasing demands of the rolling stocks can be met out. They also desire that keeping into account the substantial growth in suburban passenger traffic the number of coaches in all EMU trains be increased to 12 coaches from the existing 9 coaches.

Further the Committee find that at present Rail Coach Factory Kapurthala and Integral Coach Factory, Perambur are the two coach manufacturing units of the Indian Railways. In order to meet the future requirement of coaches, the Committee emphasize that Railways should consider setting up a production unit in the Eastern Region also.

Capacity Enhancement of RCF and ICF

3. The Committee note that the installed capacity of Rail Coach Factory (RCF), Kapurthala and Integral Coach Factory (ICF), Perambur is 1000 coaches per annum each at present. As the traffic projections are high the output of these units has to be improved. Therefore, Railways have sanctioned the capacity augmentation of RCF and ICF from 1000 to 1400 and 1250 coaches respectively. The cost involved in the augmentation works-out to Rs. 9 crore in the case of ICF and Rs. 35 crore in the case of RCF are at various phases of progress at present and likely to be completed by 2008. During their study visit to ICF in October, 2005, the Committee were informed that to increase further the capacity of ICF to 1500, a conceptual plan has been submitted to Railway Board. The Railway Board informed the Committee that the proposal submitted by ICF is under examination at present. The Committee desire that the Railways should expedite the examination of the proposal and finalize the same at the earliest.

LHB Coaches

4. The Committee find that the Railways have signed an agreement with M/s LHB/Alstom for transfer of technology to manufacture stainless steel bodied coaches in RCF (Kapurthala). Though presently LHB coaches are being manufactured in RCF, the complete assimilation and indigenisation of the technology acquired from M/s LHB/Alstom has not yet been fully materialized. They also note that the manufacturing of LHB coaches has been assigned only to RCF and not to ICF. During the study visit to ICF, the Committee were informed that if the ICF is provided with Machines & Plants (M&P) inputs, they can also manufacture LHB coaches. In this connection the Ministry of Railways have submitted before the Committee during examination that once the technology is fully assimilated and becomes broad based after that the proposal for extending the technology by way of giving necessary inputs such as M&P etc. to ICF can be considered. As the entire fleet of Rajdhani and Shatabdi trains are to be replaced by LHB coaches in the near

future, the demand for LHB coaches would naturally increase. The Committee, therefore, emphasize that necessary infrastructural inputs such as M&P be provided to ICF also so that the latter can also supplement the requirement of LHB coaches in future.

5. The Committee have also noticed certain deficiencies in LHB coaches such as uncomfortable toilets, heavy doors and jerks during journey. During examination the Ministry of Railways have stated that certain quality problems have been noticed in these coaches and are being discussed with users and manufacturers so as to get these rectified. The Committee desire that existing toilets in these coaches be replaced with more convenient and user-friendly ones and efforts be made to reduce the magnitude of jerks.

Diesel Locomotive Works (DLW)

6. From the material submitted to the Committee, they note that against their plan to acquire 655 diesel locomotives during the Tenth Five Year Plan, the Ministry of Railways has been able to procure 326 diesel locos in the first three years of the Plan and it is proposed to procure 329 locos during 2005-06 and 2006-07. During the examination, the Committee were informed by Ministry of Railways that they expect to procure only 293 locos in the remaining two years of the 10th Plan and there would be a shortfall of 36 locos. The Ministry of Railways further informed the Committee that they propose to make up this shortfall by deferring condemnation of 60 diesel locos for two years by giving them three years rescheduling and taking care of safety requirement. The Committee find that the orders for locos placed by Railways with DLW during the initial three years of 10th Plan are far below the installed capacity of DLW resulting in gross underutilization of the man power and technology available with DLW. They are of the view that had the adequate orders been given to DLW during these three years of 10th Plan, the question of capacity underutilization and shortfall would not have arisen. The Committee also disapprove the practice being adopted by Railways at present for postponement of condemnation of the overaged rolling stock in view of non-availability of new stock which obviously further puts the safety aspect on back burner. They, therefore, are of the view that such ad hoc approach should be avoided by the Railways and adequate orders be placed with DLW in future so that its capacity is utilized fully.

7. The Committee further notice that although General Motors have transferred technology for various equipments and sub-

assemblies, yet 100 per cent transfer of technology from General Motors to DLW has not taken place so far in the case of these equipments and sub-assemblies. As a result DLW is still importing around 13 per cent of the equipments such as engine blocks, turbochargers etc. required for diesel locomotives. They are surprised to note as to why the DLW has not so far been able to acquire the requisite technology from General Motors despite the fact that the MoU for transfer of technology was signed way back in 1990s. They desire that the Railways must vigorously pursue with the General Motors for complete transfer of technology so that the equipments now being imported can be manufactured in DLW itself.

Chittaranjan Locomotive Works (CLW)

8. The Committee also find that as in the case of DLW, orders placed during the last six years including the current year on CLW for electric locomotives are much below the installed capacity. They further find that in the year 2002-03 the orders placed with CLW were only 69 Locos which is around 53% of the installed capacity. The Committee were informed that yearly production of locomotives is based on traffic requirement and availability of funds. For the year 2005-06, the target for the CLW has been increased to 128 locos and the present capacity is sufficient to meet the projected requirement of locos in future. To increase the capacity to 150 locos, works are in progress at CLW. The Committee note that during 2004-05 there was a tremendous growth in the passenger as well as freight traffic which is likely to continue in the current year as well as in future. Accordingly, the Railways would require more locomotives to carry the increased traffic. The Committee therefore, desire that henceforth adequate orders be placed with CLW not only to cope up with the increasing traffic but also to utilize their capacity.

9. The Committee note that at present the requirement of traction motors are being met by Railways from CLW and Transfer of Technology (ToT) partners such as BHEL and Crompton Greaves. They further notice that CLW has the production capacity of 750 traction motors at present. During their study visit to CLW in October, 2005, the Committee were informed that CLW is manufacturing 90 traction motors per month and are likely to manufacture 800-900 traction motors this year. The Committee therefore, desire that the traction motor production capacity of the CLW be increased to 1000 per annum so that CLW itself could meet the entire requirement of the Railways.

Autonomy

10. The Committee find that at present the capacity of Production Units are not being utilized fully because of the lesser orders placed by the Railways with them. The Committee feel that this under utilization of the capacity of production units need to be viewed seriously. The export orders received so far by Railways are also not adequate. Therefore, they desire that the Railways should explore extensively the abroad markets in order to secure more orders which will not only help in generating extra revenue but also help in better utilization of the capacities of these production units. The Committee also find that production units are exporting their rolling stocks namely coaches and locomotives, after meeting the demands of Railways, mostly to Afro-Asian countries through RITES at present. During evidence the Committee were informed that to restructure the production units, the powers of General Managers of Production Units have been increased so that they can function better and have greater autonomy. To grant more autonomy to these Production Units the Railway Board is presently contemplating to evolve a methodology under which more autonomy could be imparted to these units. The Committee desire that the Railway Board should finalize the same expeditiously so that the production units can earn more money and utilize the same for their expansion, modernization and replacement of equipments. They would like to be apprised of the action taken in the matter.

Staff Strength

11. The Committee note that a large number of vacancies especially in Group 'C' & 'D' categories exist almost in all the production units of the Railways. Similarly, there is shortage of staff in Workshops. The Ministry of Railways have informed the Committee that as part of the manpower planning exercise, the DoPT Guidelines permit only one out of three posts falling vacant to be filled up. They further informed that though percentage of vacancies are on higher side being more than 10 per cent, the vacancies do not necessarily affect the production because the posts are sanctioned broadly on the basis of work load and actual operational requirement which vary from time to time depending upon the annual production targets. Vacant posts are not surrendered as the production units and workshops have to manufacture upto their capacity. Therefore, Railways have approached the DoPT for relaxation in the norms so that Railways could fill up the posts more than 1/3rd. The Committee taking note of the growing demand of rolling stock as a result of

traffic growth are of the considered view, that the Railways should pursue the matter with DoPT and vacancies in Group 'C' & 'D' category be filled up accordingly so that the targets of rolling stock could be met without delay.

Industrial Relations

12. The Committee observe that the production units of Indian Railways do not have recognized unions. However, there is a mechanism of redressal of grievances of the staff through Staff Councils which meets once or twice in a year at Railway Board level. This system is prevailing since 1954 in pursuance of the directives of the Ministry of Home Affairs. During evidence the representatives of the Ministry of Railways explained to the Committee that the Staff Councils are the representatives of the workers and there is no difficulty for the Staff Council to get the grievances redressed. Therefore, Railways do not feel the need for a recognized Union. The Committee do not agree with the views of the Ministry as the production units are industrial establishment that employs a large number of workers in different categories and it is their genuine right to have a recognized union. The Committee therefore, desire that the Railways should review the decision regarding recognition of unions in production units.

Modernisation of Workshops

13. The Committee find that way back in 1980s, with the World Bank assistance, Railway Workshops primarily dealing with coaching stock were modernized in two phases with the objective to reduce Periodic Overhauling (POH) cycle time, increase POH capacity of rolling stock and replace overaged Machines & Plants. In phase-I four workshops namely Matunga, Kanchrapara, Kharagpur and Lower Parel Workshops and in Phase-II, six workshops viz. **Parel, Lilluah, Jagadhari, Golden Rock, Kharagpur and Ajmer workshops were modernized. They also find that thereafter Railways have not made any effort to modernize the workshops keeping pace with the technological development in the field. During the evidence, the Committee were informed that modernization needed for Machines & Plants and some sheds structures were done in Phase-I and II and as the sufficient money is now available from Depreciation Reserve Fund (DRF), modernization requirement is done from this money. The Committee consider workshops as backbone of the Railways as besides manufacturing components, Periodic Overhauling of Locomotives, coaches, wagons are done in these workshops which is essential for smooth and safe operation of trains. They therefore, recommend that Railways must make study of all the workshops with reference to their modernization requirement and based on the**

study a fresh modernization plan for workshops be prepared in a time bound manner. The Committee also desire that action taken in this regard be intimated to them.

Central Organisation for Modernisation of Workshops (COFMOW)

14. Central Organisation for Modernisation of Workshops (COFMOW) was established in 1979 with an objective to modernize the workshops and to deal with the modernization programme. The Committee are surprised to note that COFMOW is at present involved in only procuring of Machines & Plants and making studies for maintenance of sub-system in workshops with a view to improve them instead of concentrating on its main objective of planning for modernization. The Committee further note that modernization of workshops is done by the Railway Board based on the feed back from workshops and funds are released accordingly. The Committee are therefore, of considered view that the COFMOW should discharge its core responsibility of planning for modernization of workshops and Railways must entrust this work to COFMOW. Funds allocated for modernization of workshops should also be fully utilized.

Maintenance of LHB Coaches

15. The Committee are of the considered view that with the introduction of LHB coaches in the premier trains like Shatabdi and Rajdhani trains, the requisition for maintenance of these coaches will increase manifold. This will require separate facilities such as Machines and Plants to be installed at workshops meant for coach maintenance at ideal locations depending upon the operational needs of the Railways. The Committee find Liluah Workshop as one of the ideal workshops which requires to be equipped with the maintenance facilities of LHB coaches. They, therefore, recommend that the Railways should first install the requisite facilities at Liluah Workshop for maintenance of LHB Coaches by expanding it and accordingly funds be allocated. The Committee also recommend that the same may also be replicated in other workshops which are ideally and strategically located on the operational routes of trains being run with LHB coaches.

Review of Manuals/Rules Books/Guidelines Regarding Periodic Overhauling (POH)

16. The Committee find that POH and maintenance of rolling stock are undertaken in the workshops/maintenance sheds as per the manuals/rules books/guidelines/instructions issued by the Railways. They note that these aforesaid manuals etc. are quite old and voluminous which require to be updated. They therefore, desire

that these manuals/rules book etc. be reviewed on urgent basis keeping in view their commensurate compatibility with latest technological developments in the rolling stock and the level of their use.

Condemnation of Rolling Stock

17. The Committee find that Rolling Stock are condemned on age-cum-condition basis and in line with life codal provisions. As on date the Railways are having 392 Diesel locomotives, 562 EMUs and 1587 coaching vehicles which are overaged but are being used after putting extra inputs and caring for the safety aspects. The Ministry of Railways have stated that by 2010 all the overaged stock running on the system would be eliminated. The Committee appreciate that all the overaged rolling stock would be eliminated by 2010 but at the same time would like to add that the overaged 562 EMU coaches which are still being run be replaced on urgent basis so that safety of passengers travelling in EMU trains is ensured. Besides, the Committee also desire that the replacement of the condemned rolling stock should be a parallel exercise so that the business does not get affected.

Improvements in Coaching Maintenance Depots

18. The Railway Safety Review Committee (RSRC), 1989 in their Report submitted in August, 1999 had inter-alia **highlighted the deficiencies in coaching maintenance infrastructure. RSRC was of the view that inadequate infrastructure at coaching depots caused great safety hazards and that the gap between the required and the existing facilities had widened which is not at all conducive for safety. The Committee note that based on the recommendation of RSRC the Railway Board had constituted a Task Force for identifying shortcomings in coaching depots and to work out investments required to eliminate these shortcomings. This Task Force had submitted its Report in 2003 and thereafter the Railway Board had constituted a Committee to prioritise these works. They also find that the Zonal Railways have been asked to formulate proposals for improving 10 priority coaching maintenance depots so as to make good the existing deficiencies for bringing out the infrastructure upto the norms/standards. The Committee have also been informed that the identified high priority depots include Jheel Siding and Sorting Yard, Tikiyapara of Howrah Division of Eastern Railway for which an investment of about Rs. 35 crore is needed. The Committee desire that while formulating the proposals for modernization of the coaching depots, the proposal of sanctioning Rs. 35 crore for the Tikiyapara coaching depot be taken into consideration.**

Setting up of Wagon Workshop in East Coast Railway

19. The Committee find that at present there are 66 workshops with the Indian Railways and these are not equitably located in all Zones. During the course of the examination of the subject and also during the study visit of the Committee in October, 2005, the Committee have found that the region under East Coast Railway is experiencing rapid industrialization and the traffic to be handled by it is likely to grow up enormously in the coming years which may result in the requirement of wagons to the extent of 25000. As compared to 170 wagons at the moment, it is expected that the POH arising out of this increase in traffic will be about 620 wagons per month. The Committee find that the East Coast Railway does not have any wagon workshop to attend to this increased POH and as a result wagons are being sent to South Central Railway, South East Central Railway and Southern Railway, etc. As such this movement is unproductive from traffic point of view. The Committee, therefore, recommend that a wagon workshop should be set up in East Coast Railway at some appropriate location.

Maintenance of Meter Gauge Coaches

20. After the introduction of Uni-gauge System in the Indian Railways, the North-east Region falling under North-east Frontier Railway still has the substantial route on Meter Gauge (MG). The Committee find that there are no adequate maintenance facilities for MG coaches in the region with the result these coaches are sent for POH and maintenance to other Workshops/Depots outside the region, which lead to delay in maintenance as well as affecting the business also. Therefore, the Committee desire that adequate maintenance facilities be provided in the region itself by providing necessary allocation.

NEW DELHI;
February, 2006
Magha, 1927 *(Saka)*

BASUDEB ACHARIA,
Chairman,
Standing Committee on Railways.

PART II

MINUTES OF THE TWENTY EIGHTH SITTING OF STANDING COMMITTEE ON RAILWAYS (2004-05)

The Committee sat on Thursday, the 9th June, 2005 from 1100 hours to 1300 hours in Committee Room No. G-074, K-Block, Parliament Library Building, New Delhi.

PRESENT

Shri Basudeb Acharia—*Chairman*

MEMBERS

Lok Sabha

2. Shri Dhirendra Agarwal
3. Shri Ajaya Kumar
4. Shri Subrata Bose
5. Shri Kishan Lal Diler
6. Shri Giridhar Gamang
7. Shri Pradeep Gandhi
8. Smt. Paramjeet Kaur Gulshan
9. Shri Anwar Hussain
10. Shri Mahesh Kanodia
11. Smt. Kalpana R. Narhire
12. Shri Kishan Singh Sangwan
13. Dr. Arun Kumar Sarma

Rajya Sabha

14. Smt. Kamla Manhar
15. Shri Karnendu Bhattacharjee
16. Shri Lalit Kishore Chaturvedi
17. Shri Tarini Kanta Roy
18. Shri Harendra Singh Malik
19. Shri Abani Roy

SECRETARIAT

1. Dr. (Smt.) P.K. Sandhu — *Joint Secretary*
2. Smt. Abha Singh Yaduvanshi — *Under Secretary*

Representatives of the Ministry of Railways (Railway Board)

1.	Shri R.K. Singh	Chairman, Railway Board & *Ex-officio* Principal Secretary to the Govt. of India.
2.	Ms. Vijayalakshmi Vishwanathan	Financial Commissioner, Railways & *Ex-officio* Secretary to the Govt. of India.
3.	Shri R.R. Jaruhar	Member Engineering, Railway Board & *Ex-officio* Secretary to the Govt. of India
4.	Shri P.N. Garg	Member Mechanical, Railway Board & *Ex-officio* Secretary to Govt. of India.
5.	Shri Ramesh Chandra	Member Electrical, Railway Board & *Ex-officio* Secretary to Govt. of India.
6.	Shri R.S. Varshney	Member, Staff, Railway Board & *Ex-officio* Secretary to the Govt. of India.

2. At the outset, the Chairman, welcomed the Members and the representatives of the Ministry of Railways to the sitting of the Committee. Therefore, the Committee took evidence of the representatives of the Ministry of Railways on the subject 'Production Units and Railways workshops'. The evidence remained inconclusive. The Committee decided to hold the next sitting on 17th June, 2005 regarding oral evidence of the representatives of the Ministry of Heavy Industry on 'Procurement of Wagons'.

3. A verbatim record of the proceedings has been kept.

The Committee then adjourned.

MINUTES OF THE THIRTY FIRST SITTING OF STANDING COMMITTEE ON RAILWAYS (2004-05)

The Committee sat on Monday, the 27th June, 2005 from 1430 hours to 1630 hours in Committee Room 'B' Parliament House Annexe, New Delhi.

PRESENT

Shri Basudeb Acharia—*Chairman*

MEMBERS

Lok Sabha

2. Shri Ajaya Kumar
3. Shri Bapu Hari Chaure
4. Shri Giridhar Gamang
5. Shri Pradeep Gandhi
6. Smt. Paramjeet Kaur Gulshan
7. Shri Anwar Hussain
8. Shri Mahesh Kanodia
9. Mohd. Tahir

Rajya Sabha

10. Smt. Kamla Manhar
11. Shri Tarini Kanta Roy
12. Shri Abani Roy

SECRETARIAT

1. Shri V.S. Negi — *Deputy Secretary*
2. Smt. Abha Singh Yaduvanshi — *Under Secretary*

Representatives of the Ministry of Railways (Railway Board)

1. Shri P.N. Garg	Member Mechanical, Railway Board & *Ex-officio* Secretary to Govt. of India
2. Shri R.R. Jaruhar	Member Engineering, Railway Board & *Ex-officio* Secretary to the Govt. of India

3. Shri Ramesh Chandra	Member Electrical, Railway Board & *Ex-officio* Secretary to Govt. of India.
4. Shri R.S. Varshney	Member, Staff, Railway Board & *Ex-officio* Secretary to the Govt. of India

2. The Committee took further evidence of the representatives of the Ministry of Railways (Railways Board) on the subject 'Production Units, Railway Workshops and Maintenance of Rolling Stock'. The evidence remained inconclusive. The Committee decided that one more sitting may be held to take evidence of the representatives of the Ministry of Railways on the subject later on.

3. A verbatim record of the proceedings has been kept.

The Committee then adjourned.

MINUTES OF THE THIRTY FOURTH SITTING OF STANDING COMMITTEE ON RAILWAYS (2004-05)

The Committee sat on Wednesday, the 20th July, 2005 from 1515 hours to 1700 hours in Committee Room No. '62', Parliament House, New Delhi.

PRESENT

Shri Basudeb Acharia—*Chairman*

MEMBERS

Lok Sabha

2. Shri Subrata Bose
3. Shri Kishan Lal Diler
4. Shri Pradeep Gandhi
5. Smt. Paramjeet Kaur Gulshan
6. Shri Mahesh Kanodia
7. Shri Kishan Singh Sangwan
8. Mohd. Tahir

Rajya Sabha

9. Smt. Kamla Manhar
10. Shri Karnendu Bhattacharjee
11. Maulana Obaidullah Khan Azmi
12. Shri Su. Thirunavukkarasar

SECRETARIAT

1. Shri V.S. Negi — *Deputy Secretary*
2. Smt. Abha Singh Yaduvanshi — *Under Secretary*

Representatives of the Ministry of Railways (Railway Board)

1.	Shri P.N. Garg	Member Mechanical, Railway Board & *Ex-officio* Secretary to the Govt. of India.

2.	Smt. Vijayalakshmi Viswanathan	Financial Commissioner (Railways) & *Ex-officio* Secretary to the Govt. of India.
3.	Shri Ramesh Chandra	Member Electrical, Railway Board & *Ex-officio* Secretary to the Govt. of India.

2. The Committee took further evidence of the representatives of the Ministry of Railways (Railway Board) on the subject 'Production Units, Railways Workshops and Maintenance of Rolling Stock'. The evidence was concluded after discussion on various vital issues relating to the subject.

3. A verbatim record of the proceedings has been kept.

The Committee then adjourned.

MINUTES OF THE SEVENTH SITTING OF STANDING COMMITTEE ON RAILWAYS (2005-06)

The Committee sat on Wednesday, the 5th October, 2005 from 1500 hours to 1700 hours in Committee Room 'D', Parliament House Annexe, New Delhi.

PRESENT

Shri Basudeb Acharia—*Chairman*

MEMBERS

Lok Sabha

2. Shri Ajaya Kumar
3. Shri Subrata Bose
4. Shri Bapu Hari Chaure
5. Shri Kishan Lal Diler
6. Shri Pradeep Gandhi
7. Shri Mahesh Kanodia
8. Shri Anwar Hussain
9. Shri C. Kuppusami
10. Shri Kishan Singh Sangwan
11. Dr. Arun Kumar Sarma
12. Mohd. Tahir

Rajya Sabha

13. Smt. Kamla Manhar
14. Maulana Obaidullah Khan Azmi
15. Shri Lalit Kishore Chaturvedi
16. Shri Su. Thirunavukkarasar
17. Shri Tarini Kanta Roy
18. Shri Harendra Singh Malik
19. Shri Abani Roy

SECRETARIAT

1. Shri A.K. Singh — *Joint Secretary*
2. Shri V.S. Negi — *Director*

Representatives of the Ministry of Railways (Railway Board)

1. Shri J. P. Batra	Chairman, Railway Board & *Ex-officio* Principal Secretary to the Government of India.
2. Ms. Vijayalakshmi Vishwanathan	Financial Commissioner Railways & *Ex-officio* Secretary to the Government of India.
3. Shri P.N. Garg	Member Mechanical & *Ex-officio* Secretary to the Government of India.
4. Shri R.R. Jaruhar	Member Engineering, Railway Board & *Ex-officio* Secretary to the Government of India.
5. Shri Ramesh Chandra	Member Electrical, Railway Board & *Ex-officio* Secretary to the Government of India.
6. Shri R.S. Varshneya	Member Staff & *Ex-officio* Secretary to the Government of India.

2. At outset, the Chairman welcomed the Members as well as the representatives of the Ministry of Railways to the sitting of the Committee. Thereafter, the Committee took the further evidence of the representatives on the subject—'Production Units, Railway workshops and Maintenance of Rolling Stock'. The evidence was concluded.

3. A verbatim record of the proceedings has been kept.

The Committee then adjourned.

MINUTES OF THE TENTH SITTING OF STANDING COMMITTEE ON RAILWAYS (2005-06)

The Committee sat on Friday, the 18th November, 2005 from 1100 hours to 1300 hours in Committee Room 'E', Parliament House Annexe, New Delhi.

PRESENT

Shri Basudeb Acharia—*Chairman*

MEMBERS

Lok Sabha

2. Shri Dhirendra Agarwal
3. Shri Ajaya Kumar
4. Shri Subrata Bose
5. Shri Kishan Lal Diler
6. Shri Giridhar Gamang
7. Shri Pradeep Gandhi
8. Shri Mahesh Kanodia
9. Shri Kishan Singh Sangwan
10. Shri Iqbal Ahmed Saradgi
11. Dr. Arun Kumar Sarma
12. Mohd. Tahir

Rajya Sabha

13. Shri Karnendu Bhattacharjee
14. Maulana Obaidullah Khan Azmi
15. Shri Lalit Kishore Chaturvedi
16. Shri Su. Thirunavukkarasar
17. Shri Harendra Singh Malik
18. Shri Abani Roy

SECRETARIAT

1. Shri A.K. Singh — *Joint Secretary*
2. Shri V.S. Negi — *Director*
3. Shri A.K. Kaushik — *Assistant Director*

Representatives of the Ministry of Railways (Railway Board)

1.	Shri J. Batra	Chairman, Railway Board & Ex-officio Principal Secretary to the Govt. of India.
2.	Ms. Vijayalakshmi Vishwanathan	Financial Commissioner Railways & Ex-officio Secretary to the Govt. of India.
3.	Shri R.R. Bhandari	Member Mechanical, Railway Board & Ex-officio Secretary to the Govt. of India.

2. The Committee took further evidence of the representatives of the Ministry of Railways on the subject 'Production Units, Railway Workshops and Maintenance of Rolling Stock'. The representatives of the Ministry clarified the various points raised by the Committee relating to the subject. The evidence was concluded.

3. A verbatim record of the proceedings has been kept.

The Committee then adjourned.

MINUTES OF THE THIRTEENTH SITTING OF STANDING COMMITTEE ON RAILWAYS (2005-06)

The Committee sat on Wednesday, the 18th January, 2006 from 1500 to 1600 hours in Committee Room 'E', Parliament House Annexe, New Delhi.

PRESENT

Shri Basudeb Acharia—*Chairman*

MEMBERS

Lok Sabha

2. Shri Dhirendra Agarwal
3. Shri Subrata Bose
4. Smt. Paramjeet Kaur Gulshan
5. Shri Anwar Hussain
6. Shri Mahesh Kanodia
7. Shri Kishan Singh Sangwan
8. Mohd. Tahir

Rajya Sabha

9. Smt. Kamla Manhar
10. Shri Karnendu Bhattacharjee
11. Maulana Obaidullah Khan Azmi
12. Shri Tarini Kanta Roy
13. Shri Abani Roy

SECRETARIAT

1. Shri A.K. Singh — *Joint Secretary*
2. Shri V.S. Negi — *Director*
3. Shri A.K. Kaushik — *Assistant Director*

2. At the outset, the Chairman, welcomed the Members to the sitting of the Committee. Thereafter, the Committee considered the draft Report on the subject 'Production Units, Workshops and Maintenance of Rolling Stock' and adopted the same with minor changes and addition of paras as reproduced in the Annexure.

3. *** *** ***

4. The Committee authorised the Chairman to finalise these Reports after making consequential changes, if any, arising out of factual verification by the Ministry of Railways or otherwise and present the same to the House.

The Committee then adjourned.

ANNEXURE

ADDITIONS/CHANGES MADE BY THE STANDING COMMITTEE ON RAILWAYS IN DRAFT REPORT ON 'PRODUCTION UNITS, RAILWAY WORKSHOPS AND MAINTENANCE OF ROLLING STOCK'

Sl.No.	Page No.	Para No.	Line	Addition/Deletion
1	2	3	4	5
1.	50	2	10	Add the following lines— They also desire that keeping into account the substantial growth in suburban passenger traffic the number of coaches in all EMU trains be increased to 12 coaches from the existing 9 coaches.
2.	52	After Para 4	—	Add new Para— The Committee have also noticed certain deficiencies in LHB coaches such as uncomfortable toilets, heavy doors and jerks during journey. During examination the Ministry of Railways have stated that certain quality problems have been noticed in these coaches and are being discussed with users and manufacturers so as to get these rectified. The Committee desire that existing toilets in these coaches be replaced with more convenient and user-friendly ones and efforts be made to reduce the magnitude of jerks.

1	2	3	4	5
3.	53	After Para 7	—	Add new Para— CHITTARANJAN LOCOMOTIVE WORKS (CLW) The Committee also find that as in the case of DLW, orders placed during the last six years including the current year on CLW for electric locomotives are much below the installed capacity. They further find that in the year 2002-03 the orders placed with CLW were only 69 Locos which is around 53% of the installed capacity. The Committee were informed that yearly production of locomotives is based on traffic requirement and availability of funds. For the year 2005-06, the target for the CLW has been increased to 128 locos and the present capacity is sufficient to meet the projected requirement of locos in future. To increase the capacity to 150 locos, works are in progress at CLW. The Committee note that during 2004-05 there was a tremendous growth in the passenger as well as freight traffic which is likely to continue in the current year as well as in future. Accordingly, the Railways would require more locomotives to carry the increased traffic. The Committee therefore, desire that henceforth adequate orders be placed with CLW not only to cope up with the increasing traffic but also to utilize their capacity.

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				The Committee note that at present the requirement of traction motors are being met by Railways from CLW and Transfer of Technology (TOT) partners such as BHEL and Crompton Greaves. They further notice that CLW has the production capacity of 750 traction motors at present. During their study visit to CLW in October, 2005, the Committee were informed that CLW is manufacturing 90 traction motors per month and are likely to manufacture 800-900 traction motors this year. The Committee therefore, desire that the traction motor production capacity of the CLW be increased to 1000 per annum so that CLW itself could meet the entire requirement of the Railways.
4.	56	After Para 11	—	Add new Para— INDUSTRIAL RELATIONS The Committee observe that the production units of Indian Railways do not have recognized unions. However, there is a mechanism of redressal of grievances of the staff through Staff Councils which meets once or twice in a year at Railway Board level. This system is prevailing since 1954 in pursuance of the directives of the Ministry of Home Affairs. During evidence the representatives of the Ministry of Railways explained to the Committee that the Staff Councils are the representatives of the workers and there is no difficulty for the Staff

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				Council to get the grievances redressed. Therefore, Railways do not feel the need for a recognized Union. The Committee do not agree with the views of the Ministry as the production units are industrial establishment that employs a large number of workers in different categories and it is their genuine right to have a recognized union. The Committee therefore, desire that the Railways should review the decision regarding recognition of unions in production units.