सत्यमेव जयते

REPORT OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

FOR THE YEAR ENDED 31 MARCH 1994

No. 10 of 1995

UNION GOVERNMENT
(RAILWAYS)

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PREFATORY REMARKS

This report for the year ended 31 March 1994 has been prepared for submission to the President of India under Article 151 of the Constitution.

The Report (No.10) covers comments arising from audit of the Accounts of Railways for the year 1993-94 and Appropriation Accounts on Railway Grants for the same year. Other points arising from the test audit of financial transactions of Railways are also included.

The audit observations contained in this report are the results of audit conducted during the year 1993-94 and early part of 1994-95 as well as results of audit conducted in earlier years which could not be included in the previous reports. Matters relating to the transactions subsequent to 1993-94 have been mentioned, wherever relevant.

OVERVIEW

I. FINANCIAL MANAGEMENT

***Financial Results*:** Despite a sizeable reduction of Rs.525 crores in the amount appropriated to Depreciation Reserve Fund, the Indian Railways ended the Financial year 1993-94 with a surplus of Rs.1806.08 crores - way below the budgeted surplus of Rs.2195 crores. The surplus worked out to 8.65 per cent of the capital at charge. The surplus was over stated by Rs.44.98 crores because of an accounts adjustment made without relevant details by South Central Railway on 31 March 1994 which was reversed between April and July 1994 in the accounts for 1994-95.

After excluding the amount of subsidy of Rs.412.03 crores received by the Railways during the year, the Railways paid a net amount of Rs.884.02 crores to the General Revenues as dividend; the effective rate of dividend worked out to 4.24 per cent of the capital at charge. The average borrowing rate of Government was 10.7 per cent.

(Paragraph No.1.1)

***Traffic Earnings*:** The shortfall in surplus was primarily due to lower receipts both in the goods and passenger operations than targeted. The passenger earnings fell short of the budget estimates by Rs.214.79 crores despite increase in fares. The shortfall in goods earnings was Rs.615.64 crores against the budget estimate of Rs.12557.36 crores despite the enhancement of freight.

The number of originating passengers and passenger kilometre which registered a negative growth during 1991-92 and 1992-93 declined still further during 1993-94. There was near stagnancy in growth in volume of goods traffic, particularly during 1992-93 and 1993-94. Amongst the Zonal Railways which could not achieve the targeted goods earnings during 1993-94, Northern Railway topped the list with a shortfall of over 50 per cent.

(Paragraphs No.1.2 and 1.3)

***Unrealised earnings and undischarged liabilities*:** Unrealised earnings stood at Rs.1114.74 crores as on 31 March 1994, representing an increase of 38 per cent over the level of 1992-93. Northern Railway topped the list with the maximum outstanding amount of Rs.728.29 crores. Undischarged liabilities on account of interest not paid on new lines increased by Rs.155.58 crores and stood at Rs.794.11 crores at the end of 1993-94.

(Paragraphs No.1.4 and 1.6)

***Plan Expenditure*:** Plan expenditure of Rs.5004.43 crores during 1993-94 fell short of the budget provision of Rs.5600 crores by more than 10 per cent. Borrowed capital provided 19.47 per cent of the resources for Plan expenditure. Expenditure on gauge conversion exceeded the total expenditure on new lines, doubling of existing lines and electrification projects taken together.

(Paragraph No.1.5)

***Ongoing Works/Projects*:** As many as 139 works/projects involving a cumulative capital outlay of Rs.4097.99 crores were in progress for more than 5 years as of 1993-94. These included 29 projects of construction of new lines, doubling of existing lines and electrification projects on which capital outlay of Rs.1696.32 crores had been incurred upto 1993-94.

(Paragraph No.1.7)

***Appropriation Accounts*:** Against the budget provision of Rs.32877.88 crores including supplementary, the Railways incurred total expenditure of Rs.31393.11 crores during 1993-94. In eight cases, the expenditure exceeded the budget provisions; the excess required regularisation under Article 115(1)(b) of the Constitution of India. In two cases, funds were surrendered but the expenditure actually exceeded the total provisions.

(Paragraph No.1.8)

***Cross Subsidy*:** The Railways had prepared costed accounts only upto 1992-93. About 27 per cent of expenses on passenger services during 1992-93 were left uncovered by actual receipts from passenger services. Large deficits occurred from the carriage of second class passenger traffic and EMU Suburban Services.

(Paragraph No.1.9)

***Efficiency Indices*:** The overall operating ratio of all Indian Railways improved from 87.36 per cent in 1992-93 to 82.93 per cent in 1993-94. However, Metro Railway showed a steep deterioration from 248.04 per cent in 1992-93 to 341.48 per cent in 1993-94. Northeast Frontier Railway and North Eastern Railway were two other major loss making Railways. Traffic in NTKMs per thousand employees showed a nominal increase from 165.95 in 1992-93 to 168.46 in 1993-94. The capital output ratio measured in terms of capital at charge per NTKM of traffic deteriorated from 74 to 76 between 1992-93 and 1993-94.

(Paragraph No.1.10)

II. Non-realisation of railway dues due to failure to observe prescribed procedure

Failure to implement the system for joint check of damages/deficiencies in wagons interchanged with steel plants and collieries prescribed by the Railway Board led to non-realisation of Rs.7.86 crores on Eastern and Western Railways.

(Paragraph No. 2.1.1 {i})

III. Loss due to short recovery of siding charges in respect of electrified sidings

Delay by Railway Administrations in computing and applying the correct rates relevant to electric locos led to short recovery of Rs.103.64 lakhs in respect of electrified sidings on Southern and South Central Railways.

(Paragraph No. 2.1.1 {vi})

IV. Avoidable expenditure due to booking and carriage of traffic by longer route

Failure of the Railway Administration to carry traffic by the shortest route led to the haulage of wagons by the longer route resulting in loss of Rs.38.97 lakhs.

(Paragraph No. 2.1.3 {ii})

V. Loss of revenue due to incorrect determination of placement time for demurrages

Incorrect determination of placement time for levy of demurrage in violation of the prescribed instructions resulted in loss of revenue of Rs.84.84 lakhs during June 1987 to November 1993 in a cement siding at Kodinar, Western Railway.

(Paragraph No.2.1.4 {ii})

VI. Bangalore City - Mysore Gauge Conversion project

The Bangalore City - Mysore Gauge Conversion Project on Southern Railway which was sanctioned in 1979-80 on a certificate of urgency was completed 13 years later and the section was opened for traffic in September 1992. Though the work started in April 1979, the estimate of Rs.24.59 crores was sanctioned in June 1984. A revised estimate of Rs.76.94 crores which represented an increase of 212 per cent was sanctioned by the Railway Board in February 1991. The Railway again revised the estimate in May 1993 to Rs.158.54 crores involving further increase of Rs.81.60 crores. While reviewing the second revised estimate the Railway's Internal Finance made critical observations regarding provision of Rs.7.28 crores towards minor bridges, extra expenditure of Rs.5.14 crores because of change of mode of transportation of rails and sleepers from rail to road, expenditure of Rs.4.51 crores on plant and machinery, Rs.1 crore on provision of side drains (stone slab) and the expenditure of Rs.30 lakhs on temporary diversion line. The Railway neither responded to the observations of the Internal Finance nor submitted the second revised estimate to the Railway Board. The actual expenditure incurred on the work had exceeded even the second revised estimate and stood at Rs.162.33 crores as accounted up to October 1993. The completion estimate and report had also not been submitted to the Railway Board as of December 1994.

Cost escalation on the project which was sanctioned on a certificate of urgency accounted for Rs.78.08 crores of the increase over the original estimate. The Railway incurred unauthorised expenditure of Rs.2.33 crores on facilities such as station buildings, tokenless signal working and other electrical works without the approval of the Railway Board. Execution of certain works in the project like easing of existing gradient, provision of 70 vehicle loopline in stations yards and easing of gradient, not warranted by traffic had burdened the project with extra/avoidable expenditure of Rs.16.11 crores.

The Railway awarded a total number of 19 contracts for an aggregate cost of Rs.1.67 crores in respect of cut and connection on single tender basis during the final block period against the assessed cost of Rs.0.98 crores which was based on the rates generally accepted for other contracts during this period. The Railway also incurred expenditure of Rs.1.22 crores on deployment of departmental labour on the same works without maintaining the prescribed record of the work done by such labour. Incorrect assessment of quantities of earth work entailed extra expenditure of Rs.48.18 lakhs due to higher rates in two cases. The Railway incurred extra expenditure of Rs.1.32 crores on the execution of work after the relevant contracts with the original contractors were terminated but in none of these cases the extra expenditure could be recovered from the original contractors.

Stock verifications done during the period 1985-90 disclosed heavy shortages of materials valued at Rs.6.20 crores. Additionally stores valued at Rs.3.50 crores had remained unaccounted. In 39 cases materials of the value of Rs.32.28 lakhs were not received/short received/received in damaged condition.

(Paragraph No. 3.1.1)

VII. Construction of Broad Gauge line from Kapadvanj to Modasa including conversion of Narrow Gauge line from Nadiad to Kapadvanj

Western Railway incurred expenditure of Rs.26.59 crores on the project construction of Broad Gauge line from Kapadvanj to Modasa including conversion of the existing Narrow Gauge line from Nadiad to Kapadvanj into Broad Gauge line despite the known negative rate of return. The gauge conversion work was completed at a cost of Rs.19.08 crores and the line was opened for traffic in January 1993. The anticipated goods traffic did not at all materialise and the occupancy of the only two passenger trains run on the line was less than even 5 per cent of the capacity; consequently the rate of return was negative. The new construction work was discontinued in March 1991 and the expenditure of Rs.7.51 crores incurred thereon had remained unproductive.

(Paragraph No. 3.1.2)

VIII. Construction of a new metre gauge line from Amguri to Tuli

The construction of a 14.65 Kms. new Metre Gauge line from Amguri to Tuli was sanctioned in January 1979 at an estimated cost of Rs.5.83 crores primarily to serve the needs of the Nagaland Pulp and Paper Company. The line was completed in March 1992 at a cost of Rs.14.83 crores involving cost overrun of 154 per cent and had not been opened to traffic as of January 1995. In the mean time, the Nagaland Pulp and Paper Company was also closed down from 1992.

(Paragraph No. 3.1.3)

IX. Unproductive investments for running long/heavy haul trains

Expenditure of Rs.16.49 crores was incurred by Eastern and Northern Railways on creation of infrastructure for running long/heavy haul trains on the Gaya-Mughalsarai-Ghaziabad section. The heavy haul operations were abandoned after a brief period of working between May 1991 and March 1992 and the expenditure had remained unproductive.

(Paragraph No. 3.1.4)

X. Construction of new Broad Gauge Railway Bridge across river Anas

Injudicious award of bridge design and construction work to a contractor who did not have the financial capacity for undertaking work of this magnitude led to the termination of the contract in December 1991, despite grant of five extensions to the contractor and rendered unproductive the expenditure of Rs.82.88 lakhs incurred so far. An amount of Rs.12.44 lakhs had remained outstanding against the contractor on account of advance of plant and machinery and interest on an extra contractual advance. The Railway would be required to incur substantial additional expenditure on completion of the remaining work due to increase in rates since December 1991.

Paragraph No. 3.1.6)

XI. Delay in commissioning of a crossing station

Delay in commissioning of a crossing station between Hasanpatri-Kazipet section on South Central Railway because of infringement of gradient resulted in idle investment of Rs.90.93 lakhs for more than three years.

(Paragraph No. 3.1.7)

XII. Undue benefit to a private firm

The Railway Administration constructed a private siding for a private party as deposit work in August 1986 but did not keep proper accounts of expenditure incurred. Although the amount due from the party worked out to Rs.1.08 crores even after adjusting an amount of Rs 0.55 crore stated to have been incurred by the party on behalf of the Railway (the amount of Rs.0.55 crore had not been verified by the Railway) the Railway had been asking for payment of Rs.0.50 crore only pending finalisation of accounts. Even this amount had not been paid by the party and the party continued to derive undue benefit because of the lapses of the Administration in maintaining proper accounts and taking effective steps for recovery of the outstanding amount.

(Paragraph No. 3.2)

XIII. Unproductive expenditure on construction of bridge

Northeast Frontier Railway commenced construction of substructure of five bridges, after inviting limited tenders, in connection with the gauge conversion works between Guwahati and Lumding, despite the advice of the Railway Board that the existing bridges were adequate. The works were subsequently discontinued under the orders of the Board and the expenditure of Rs.1.02 crores incurred thereon was rendered unproductive.

(Paragraph No. 3.3.1)

XIV. Loss due to extending undue favour to a contractor

The work of construction of diaphragm walls awarded by Metro Railway Administration to M/s. National Buildings Construction Corporation Ltd. (NBCC) in July 1981 for completion by December 1983 was actually completed in January 1989 despite withdrawal of certain portions of work. The Railway Administration had recovered neither the extra expenditure of Rs.44.48 lakhs incurred in getting the withdrawn portions of work completed through other agencies, nor the outstanding amount of advance of Rs.8.18 lakhs and interest thereon from NBCC.

(Paragraph No. 3.3.3)

XV. Infructuous expenditure due to injudicious selection of site

Construction of computerised reservation centre on the eastern side of Mambalam station in the Madras Beach - Tambaram section despite the known requirement of eastern side for future projects in that section and its subsequent demolition to provide space for the BG line as part of the gauge conversion project rendered the expenditure of Rs.22.88 lakhs infructuous.

(Paragraph No. 3.3.5)

XVI. Loss due to failure to prove title to land

Eastern Railway paid Rs.1 crore to IRCON in August 1988 in connection with the work of setting up a mechanised quarry in the Railway land at Barharwa and for supply of ballast to the Railway. IRCON abandoned the work in July 1990 as the title to land was disputed and the Railway could not prove its title to land before the land revenue authorities. Consequently an amount of Rs.1 crore had remained blocked with IRCON for over six years.

(Paragraph No. 3.4.1)

XVII. Loss due to non-revision of licence fee

Failure of the Western Railway to revise the rates of licence fee of railway land leased to the Ministry of Defence led to short recovery of licence fee of over Rs.1 crore.

(Paragraph No. 3.4.2)

XVIII. Unproductive expenditure on creation of assets

118 units of staff quarters constructed in 1983/1984 at a cost of Rs.44.78 lakhs had not been handed over to Open Line for use. A Railway Protection Force Barrack

and a post in Bhilai Marshalling Yard constructed in 1983 at a cost of Rs.8.44 lakhs were taken over by the open line only in October 1994.

(Paragraph No. 3.4.3)

XIX. Unproductive expenditure on import of Dry Type Booster Transformers

The Railways imported 759 dry type booster transformers during February 1990 to November 1990 at a cost of Rs.23.69 crores. Although dry type booster transformers were being purchased for the first time, the Railways did not conduct adequate trials of samples and prototypes under field conditions. Of the 692 booster transformers commissioned till 29 July 1994, 185 number of transformers failed after commissioning and 423 had not been connected for fear of failure. Despite the large scale failure, the Railways did not take timely action to reject the transformers before the expiry of warranty period. Consequently the expenditure of Rs.17.75 crores incurred on the purchase of 608 transformers had remained unproductive for more than four years.

(Paragraph No. 4.1.1)

XX. Avoidable expenditure on purchase of Roller Bearing Axle Boxes

The Railway Board did not review the ongoing order for procurement of Roller Bearing Axle Boxes for metre gauge wagon stock after the announcement of the unigauge policy and despite the failure of the supplier to keep to the delivery schedule and instead granted extensions to the supplier. Consequently, the Railways incurred avoidable expenditure of Rs.52.22 lakhs on procurement of metre gauge wagon stock items even after the announcement of unigauge policy.

(Paragraph No. 4.1.2)

XXI. Injudicious leasing of aircraft

The Ministry of Railways, Railway Board obtained a supplementary token provision of Rs.0.50 lakh in August 1993 for payment of interest free advance to Indian Railway Construction Company Limited (IRCON) for procurement of aircraft with a view to ensuring ready availability of aircraft in exigencies such as accidents, natural calamities etc. to meet the mutual requirements of Railways and IRCON. The Railway Board provided an interest free advance of Rs.15 crores to IRCON in February 1994 after re-appropriating Rs.14.995 crores from the provisions made in the budget estimates for 1993-94 for new lines, gauge conversion, railway electrification, rolling stock etc. The aircraft which was received at Delhi Airport on 11 May 1994 was hired for Railways use for visiting 51 destinations aggregating to 121.75 hours, on an average 24.35 hours per month upto 2 October 1994. These included visits to Bangalore (15 occasions), Mangalore/Harihar (4 occasions), Nagpur (5 occasions) and Bombay (9 occasions). Forty nine out of fifty one visits were to stations connected by regular flights; none of the visits was in connection with exigencies like accident, natural calamities etc.

The Railway Board did not prepare detailed justification for the aircraft showing expected level of its utilisation. The Board had on an average chartered aircraft on 14 occasions during the years 1991, 1992 and 1993 and incurred an average expenditure of Rs.51 lakhs only on chartering of aircrafts and commercial flights. Against this the Railway Board will now have to bear a liability of Rs.4.37 crores per annum on account of interest on advance and fixed and variable charges payable to IRCON.

Incorrect determination of fixed charges by inflating the capital cost and rate of depreciation will involve extra payment of Rs.6.49 crores by the Railways to IRCON over a period of 12 years. IRCON had also not given the benefit of free spares received by it from the supplier and the free maintenance for two years to be provided by the supplier. The Railways were billed Rs.28.8 lakhs for operation and crew's salaries during the first two years against Rs.23.04 lakhs to be paid by the IRCON to the supplier. IRCON also recovered contingencies at the rate of 5 per cent instead of 3 per cent provided in Railway contracts besides overheads at the rate of Rs.2.5 lakhs per annum, the basis and nature of which was not specified.

(Paragraph 4.1.3)

XXII. Unproductive investment on Flash Butt Welding Plant

A Flash Butt Welding Plant was imported in December 1990 at a cost of Rs.3.57 crores, without mandatory inspection by the Railways. Although 90 per cent of the payment has been released in July 1991, and other ancillary works completed, the plant has not been commissioned. An investment of Rs.5.86 crores has been rendered unproductive.

(Paragraph 4.1.4)

XXIII. Avoidable extra expenditure due to delay in finalisation of tender

Delay in finalisation of tender deprived the Railway of the benefit of lower rates for procurement of gear wheel assembly and resulted in extra expenditure of Rs.2.02 crores.

(Paragraph No. 4.1.5)

XXIV Delay in commissioning of wheel lathe due to defective foundation and damage because of rain water

Expenditure of Rs.1.31 crores incurred on procurement and installation of wheel lathe machine in November 1989 in Pratapnagar Workshop of Western Railway had remained unproductive for five years initially because of the delay in finalisation of foundation drawings. The machine got damaged in July 1993 due to submergence in rain water and had not been commissioned as of December 1994.

(Paragraph No. 4.1.6)

XXV. Avoidable expenditure due to mishandling of imported consignments

Failure to ensure prompt customs clearances and proper storage, handling and carriage of three highly sophisticated imported machines and their subsequent transportation to ultimate consignees in open wagons during monsoon led to extensive damages to the machines and avoidable extra expenditure of Rs.1.88 crores.

(Paragraph No. 4.1.7)

XXVI. Blocking of funds due to excess procurement of Anti-creep Bearing Plants

Procurement of Anti-Creep Bearing Plants, an item used for holding together the rail and wooden sleepers, at a cost of Rs.1.27 crores during October 1989 and October 1990 despite the policy decision taken by the Railway Board in October 1986 to eliminate the use of wooden sleepers on certain locations and track renewal works, resulted in large quantities of the material valued at Rs.68.88 lakhs remaining unutilised and avoidable blocking of funds.

(Paragraph No. 4.1.8)

XXVII. Loss due to poor import management

Chittaranjan Locomotive Works (CLW) suffered loss of Rs.54.66 lakhs due to poor import management.

(Paragraph No. 4.1.9)

XXVIII Undue utilisation of wheelset cleaning plants

Two Wheelset Cleaning Plants procured at a cost of Rs.2.10 crores at Lilluah Workshop of Eastern Railway remained grossly under utilised vis-a-vis their rated capacity The plants also did not fully meet the requirements and 42 per cent of arisings could not be cleaned due to maintenance problem and break down.

(Paragraph No. 4.2.1)

XXIX. Unproductive expenditure on procurement of diesel cranes

Three diesel cranes received by Central Railway in August 1989 from Jamalpur Workshop at a cost of Rs.1.82 crores were commissioned only in February 1990. All the three cranes developed defects soon thereafter and were out of order since April/May 1990. Consequently the expenditure of Rs.1.82 crores incurred on the procurement of cranes had remained unproductive.

(Paragraph No. 4.2.2)

XXX. Delay in commissioning of plants and machinery at Coach Repair Workshop

Five items of plant and machinery costing Rs.47.83 lakhs were commissioned in Coach Repair Workshop, Nishatpura (Bhopal) Central Railway after delays of 10 to 44 months; four other machines costing Rs.73.42 lakhs received between July 1991 and May 1992 had not been commissioned even as of July 1994. Avoidable payment of dividend on the blocked capital on account of delay in commissioning of plant and machinery worked out to Rs.17.77 lakhs. Delay in commissioning of one of the plants had necessitated use of costlier material involving extra expenditure of Rs.7 42 lakhs between July 1991 and June 1993.

(Paragraph No. 4.2.3)

XXXI. Infructuous expenditure on import of Mobile Gas Pressure Welding Plants

On the basis of a **suo moto** offer received from an Indian agent of a foreign manufacturer, the Railway Board procured 10 mobile gas welding plants at a cost of Rs.70.85 lakhs in January 1992. The plants did not render satisfactory service and the expenditure of Rs.70.85 lakhs proved infructuous.

(Paragraph No. 4.2.4)

XXXII. Idle investment in procurement of a costly machine

Purchase by South Eastern Railway of a bull dozer, an essential safety equipment attached to the Accident Relief Train which was subsequently found to be oversized, resulted in investment of Rs.68.03 lakhs remaining unproductive for over two years from March 1992. The bull dozer was transferred to Chittaranjan Locomotive Works (CLW) in April 1994.

(Paragraph No. 4.2.5)

XXXIII. Loss due to obsolete/wasteful technology

Chittaranjan Locomotive Works (CLW) suffered loss of Rs.34.28 lakhs during 1989 to 1992 alone because of use of obsolete technology for filling liquid oxygen in its steel foundry although an alternative efficient technology involving capital expenditure of Rs.1.70 lakhs only was being used since 1987 in a Public Sector Undertaking located nearby.

(Paragraph No. 4.2.6)

XXXIV. Avoidable extra expenditure due to injudicious rejection of tender

Failure to consider the increased solvency of contractor in the first round by the Tender Committee in January 1991, treating the solvency submitted as inadequate and subsequent acceptance in January 1992 of solvency certificate the same amount and award of the contract at higher rate led to avoidable extra expenditure of Rs.54 lakhs in procurement of 2.25 lakhs cum of ballast on Central Railway

(Paragraph No. 4.3.1)

XXXV Avoidable extra expenditure on account of excess consumption of High Speed Diesel Oil

Excess consumption of High Speed Diesel (HSD) Oil, beyond the norms prescribed by the Railway Board, resulted in avoidable extra expenditure of Rs.2.04 crores in Itarsi, New Katni and Pune Loco sheds. The Railway Administration attributed excess consumption to absence of leak off pipes, non shutting of locos when not required/detained in sheds, contamination of HSD oil with water which necessitated complete draining and absence of close monitoring.

Paragraph No. 4.3.5)

XXXVI. Avoidable and unproductive expenditure on procurement of material for the Narrow Gauge sections

Failure to review the requirements of a Narrow Gauge Section on Western Railway in the light of the Corporate Plan and the unigauge policy led to avoidable and unproductive expenditure of Rs.86 lakhs on procurement of N.G. sleepers. The likelihood of utilisation of sleepers is also remote in view of the unigauge policy

(Paragraph No. 4.3.6)

XXXVII. Purchase of WAG-5 type AC Electric Locomotives

The Railway Board issued a letter of intent to Bharat Heavy Electricals Limited (BHEL) in November 1985 for manufacture and supply of five numbers (revised to 35 numbers in September 1986) WAG-5 type 25 KV AC electric locos at a provisional price equivalent to the cost of manufacture at Chittaranjan Locomotive Works (CLW) or the actual manufacturing cost at BHEL whichever was lower.The Railways, however, finally agreed to a unit price of Rs.165 lakhs per loco (with free supply of traction motors)against the manufacturing cost of Rs.108 lakhs at CLW involving extra expenditure of Rs.19.95 crores to the Railways. The supply which was to be completed by 1988-89 was actually completed during 1991-92.

(Paragraph No. 4.4.1)

XXXVIII. Loss due to non-utilisation of new BG AC EMU coaches

Failure to create the infrastructure facilities to match the acquisition of EMU coaches resulted in the investment of Rs.9.81 crores remaining unfruitful for over two years on Southern Railway.

(Paragraph No. 4.4.2)

XXXIX. Working of Mechanical Workshops

The Indian Railways have a network of 46 workshops equipped with plant and machinery, manpower and infrastructure for the maintenance of locomotives, coaches and wagons. The expenditure on repair and maintenance rose from Rs.1621.33 crores in 1989-90 to Rs.2024.21 crores in 1992-93. The total expenditure of Rs.7245.63

crores incurred on repair and maintenance of rolling stock during 1989-90 to 1992-93 represented 21 per cent of the total ordinary working expenses of the Railways.

With a view to achieving reduction in Periodical Overhaul (POH) cycle time of rolling stock and effecting economy in the rolling stock maintenance, the Railways made investment aggregating to Rs.390.59 crores on modernisation of 10 workshops in two phases. In three of these workshops the cost overrun on modernisation was Rs.23.08 crores. Test check of records of four workshops also showed that the enormous investments on modernisation had not yielded the desired benefits. In Kharagpur Workshop, which was modernised at a cost of Rs.55.34 crores, the output actually declined after modernisation.

Shortfall in output of POH resulted in loss of Rs.44.14 crores in three railways because of under utilisation of labour. Detention to rolling stock before POH resulted in loss of earning capacity which was assessed at Rs.58.37 crores on Central, Southern, Northern, Western and Eastern Railways. The loss in earning capacity because of excess time taken in POH of rolling stock was assessed at Rs.38.07 crores on Western, Central and Northeast Frontier Railways. Large numbers of coaches and wagons were overdue for POH. The extent of rejection of wagons (BG) and wagons (MG) within three months of POH was high and ranged between 9 and 43 per cent and between 15 and 32 per cent respectively. The Railways did not follow the prescribed procedure of joint verification of rolling stock received for POH by the workshop staff and base depot staff and heavy shortages which were noticed, were neither investigated nor written off.

Plant and machinery costing Rs.32.76 crores were commissioned after delays of six months to eight years. The capacity of two of the workshops namely Carriage Repair Workshop, Tirupati and Rail Spring Manufacturing Plant, Sithouli was grossly under-utilised; in the latter case, the shortfall in production deprived the Railways of the anticipated saving of Rs.12.46 crores on imports.

The incidence of idle time, for reasons other than power failure, was high resulting in loss to the Railways. On Western Railway, recurring expenditure of Rs.11.7 lakhs per month was being incurred on supervisors/artisan staff rendered surplus in March 1994 due to reduction in the workload for MG steam locomotives in Ajmer workshop who had not been relocated. On South Eastern Railway, avoidable expenditure of Rs.9.06 crores was incurred upto November 1993 on 531 artisans rendered surplus consequent on shifting of work of POH of carriages from Raipur Wagon Repair Workshop to Mancheswar Carriage Repair Workshop in January 1987. Despite the instructions of Railway Board, four Railways made irregular payment of Rs.5.05 crores as overtime allowance to the staff who were governed by the incentive scheme.

(Paragraph No. 5.1)

XXXX. Electricity Charges

According to the terms and conditions of the agreements between the State Electricity Boards and the Railway Administrations, consumption of electricity in excess of the contracted demand attracts penal charges for the excess load over and above the contracted load. Seven Zonal Railways and Chittaranjan Locomotive Works were required to pay an amount of Rs.37.70 crores on account of penal charges because of excess consumption of electricity over the contracted demand. Central and Western Railways paid Rs.15.08 crores on account of penalty charges because of over shooting of maximum demand due to bunching of trains. The Railways failed to maintain the prescribed power factor; this necessitated payment of penal charges amounting to Rs.16.44 crores by four Railways. Additionally, the Railways paid

Rs.27.98 crores as penalty because of non-installation/improper installation/non-commissioning of shunt capacitor banks which were intended to maintain the power factor.

Due to defective meters, Northern, Northeast Frontier and Western Railways made avoidable payment of Rs.2.30 crores because of excess billing. The Railways lost benefit of rebate of Rs.67.04 lakhs because of delay in payment of electricity bills. Energy charges amounting to Rs.5.14 crores from private parties, Government Departments and other users were outstanding for recovery.

The Railways were not able to secure concessional tariff charged by Electricity Boards for other bulk industries/consumers; this led to extra burden of Rs.35.28 crores on the Railways. The Railways made extra payment of Rs.26.04 crores because of their failure to segregate industrial and non-industrial consumption.

(Paragraph No. 5.2)

CHAPTER 1

FINANCIAL MANAGEMENT

1.1 Financial Results

The financial results of the Indian Railways for the year 1993-94 compared with the budget estimates (1993-94) and the actuals of the previous year are shown below:-

(Rupees in crores)

		Actuals 1992-93	Budget Estimates 1993-94	Actuals 1993-94
1.	Gross Traffic Receipts	15688.44	19021.00	17946.02
2.	Ordinary Working Expenses	10480.08	11955.00	11759.54
3.	Appropriation to			
	i) Depreciation Reserve Fund	2300.00	2400.00	1875.00
	ii) Pension Fund	1200.00	1500.00	1500.00
4.	Excess of Miscellaneous Receipts over Expenditure	247.07	282.00	290.65
5.	Net Revenue (1+4-2-3)	1955.43	3448.00	3102.13
6.	Dividend payment to General Revenues	1172.39	1253.00	1296.05
7.	Payment towards deferred dividend liability	341.99	-	-
8.	Surplus appropriated to			
	i) Development Fund	370.18	235.00	132.26
	ii) Capital Fund	70.87	1960.00	1673.82
9.	Capital at Charge	20123.20	20267.47	20873.58

(i) The provision of Rs.2400 crores in the Budget Estimates for appropriation to Depreciation Reserve Fund, which was in conformity with the recommendations of the Railway Convention Committee (1991) Tenth Lok Sabha, was scaled down to Rs.2300 crores in the Revised Estimates; the amount actually appropriated was still less at Rs.1875 crores, significantly below the amount of Rs.2300 crores in 1992-93. Despite the shortfall in appropriation to Depreciation Reserve Fund, the Railways ended the year 1993-94 with a reduced surplus of Rs.1806.08 crores against the surplus of Rs.2195 crores envisaged in the Budget Estimates. On South Central Railway traffic earnings (Rs.1772.57 crores) for 1993-94 were enhanced by Rs.44.98 crores by debit to PAO-suspense' on March 31, 1994 through a Journal Voucher, without mentioning supporting details of the reason for effecting this adjustment or of the PAO concerned. The adjustment was reversed between April and July 1994 in the accounts for 1994-95. The apparently ficticious adjustment in the accounts of 1993-94 led to overstatement of profit or surplus of South Central Railway by 29.91 per cent, which otherwise would have stood at Rs.150.36 crores instead of Rs.195.34 crores. This also resulted in overstatement of profit or surplus of the Railways by the like amount of Rs.44.98 crores which otherwise would have further declined to Rs.1761.10 crores.

(ii) With effect from April 1993 a previously existing Fund viz. Accident Compensation, Safety and Passenger Amenities Fund was merged with Development Fund. The expenditure from the Development Fund is intended to finance works relating to amenities for users of Railway transport, labour welfare works, un-remunerative operating improvements and safety works. A new Fund viz. Capital Fund was also created from April 1993 to finance the capital works of the Railways. The balance amount of surplus left after appropriation to development fund is credited to this fund. Because of the reduced surplus Railways were able to appropriate only, Rs.1673.82 crores to Capital Fund and Rs.132.26 crores to Development Fund against the Budget Estimate of Rs.1960 crores and Rs.235 crores respectively, shortfall being 14.60 per cent and 43.72 per cent respectively.

(iii) The shortfall of Rs.388.92 crores in actual surplus vis-a-vis the Budget Estimate was due to less receipts under 'Goods Traffic' (Rs.615.64 crores), increase in 'unrealised earnings' (Rs.247.60 crores), less 'Passenger Earnings' (Rs.214.79 crores), more payment of dividend (Rs.43.05 crores), less 'Other Coaching Earnings' (Rs.17.13

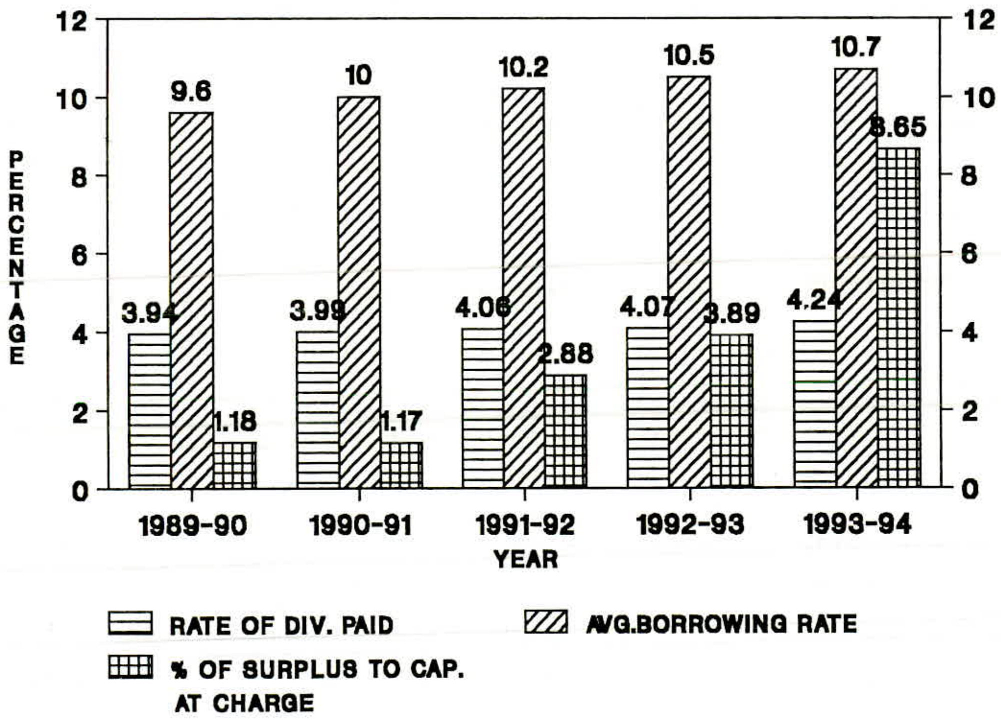
crores), offset by reduced Appropriation to Depreciation Reserve Fund (Rs.525 crores), decrease in Ordinary Working Expenses (Rs.195.46 crores), increase in 'Sundry Other Earnings'(Rs.20.18 crores) and more 'Miscellaneous Receipts' (net Rs.8.65 crores). Some of these are discussed in the subsequent paragraphs.

(iv) The Railways paid a dividend of Rs.1296.05 crores to the General Revenues during the year 1993-94. The budgeted dividend was Rs.1253 crores.

After excluding the amount of subsidy of Rs.412.03 crores received by the Railways during the year, the effective dividend paid worked out to 4.24 per cent of the Capital at charge.

The effective rate of dividend, the percentage of surplus to capital at charge and the average borrowing rate of Government during the last five years ended 1993-94 was as under:

EFFECTIVE RATE OF DIVIDEND PAID, AVERAGE BORROWING RATE AND RATIO OF SURPLUS TO CAPITAL AT CHARGE



Gross Traffic Receipts

1.2 Passenger Earnings

(i) Passenger fares for all classes (excepting Second Class ordinary fares upto 100 km) were increased by 10 per cent from April 1993, besides some minor adjustments in the fares and surcharges for travel in super-fast trains. These increases were expected to yield Rs.780.00 crores in 1993-94 over the Revised Estimates of 1992-93. The actual Passenger earnings (Rs.4895.21 crores) however increased by Rs.565.21 crores over the Revised Estimates of 1992-93, leading to a short fall of Rs.214.79 crores as compared to Budget Estimates (Rs.5110.00 crores) for 1993-94. Major shortfalls occurred on Southern Railway (5.89 per cent), Northeast Frontier Railway (5.83 per cent) and North Eastern Railway (3.88 per cent). Noticeable shortfalls were in Second Class M/E (including Sleeper Class) Rs.129.09 crores and Second Class Ordinary (including Sleeper Class) Rs.102.95 crores.

(ii) The passenger earnings of Rs.4895.21 crores during 1993-94 comprised of Rs.4319.27 crores and Rs.575.94 crores from Non-suburban and Suburban traffic respectively. The major portion (56.16 per cent) of these earnings came from Second Class-M/E including Sleeper Class-M/E (Rs.2748.91 crores).

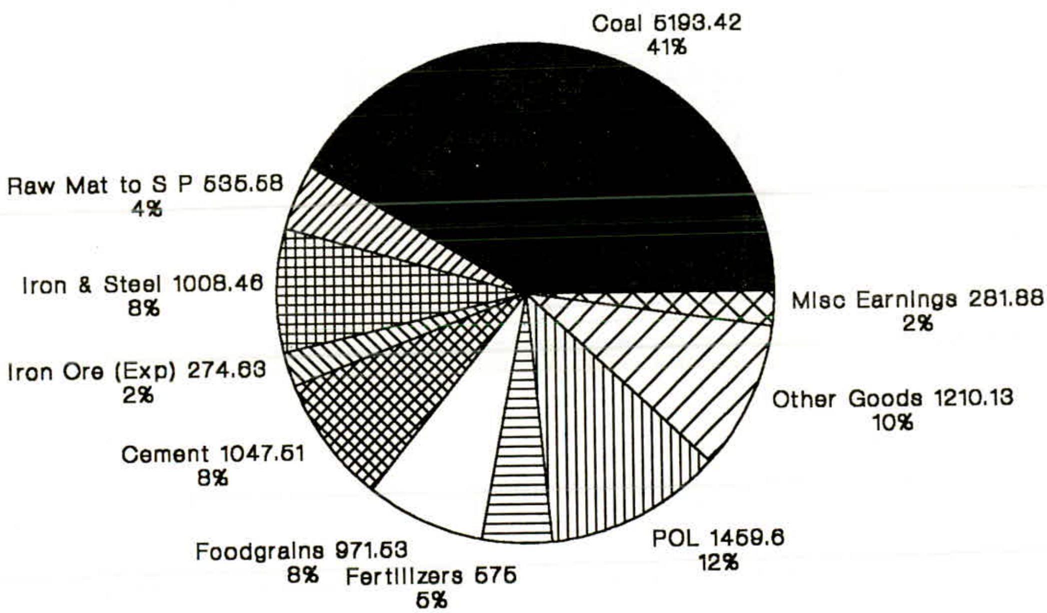
(iii) The number of originating passengers and passenger kilometres had both declined from 1991-92 onwards; the increased earnings are therefore entirely attributable to increased fares.

1.3 Goods Earnings

(i) The freight rates for all commodities (goods traffic) were enhanced during 1993-94 by 10 per cent for distances upto 500 kilometres and 12 per cent for distances beyond 500 kilometres besides 5 per cent increase in 'to pay' surcharge in respect of Coal. Three new scale rates viz. LWL-1, LWL-2 AND LWL-3 for charging the goods traffic offered in less than wagon-loads equivalent to Parcel scale rates of GPA, CP-1 and CP-2 respectively depending on the commodity were introduced. The exemptions given in the past years from increases in freight rates in respect of Grains & Pulses, Diesel, Sugar and Oil Cake were also withdrawn. An increase of 20 million tonnes of revenue earning traffic over the Revised Estimates of 1992-93 , was anticipated. Based on these, the Goods Traffic Receipts were placed at Rs.13,173 crores; up by Rs.2,073.00 crores over the Revised Estimates of 1992-93. The anticipated increase in

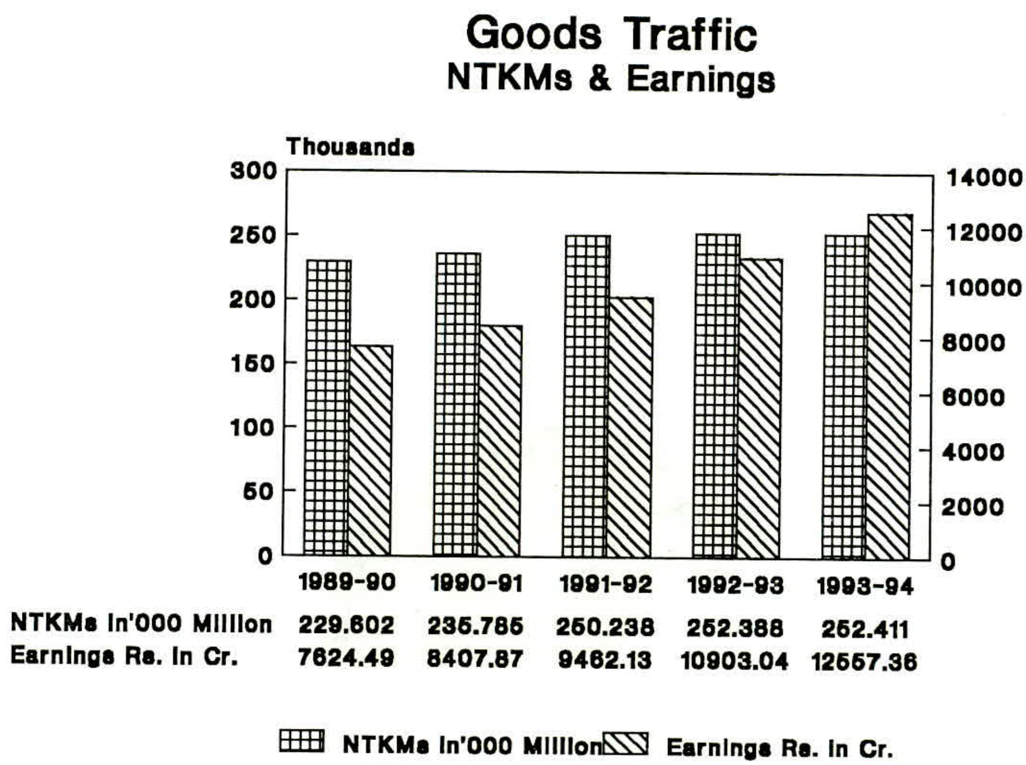
Goods traffic did not however materialise; the Railways were able to lift only 359 million tonnes against Budget Estimate of 370 million tonnes earning Rs.12,557.36 crores only. Thus there was a shortfall of 11 million tonnes in originating Revenue earning goods traffic and a shortfall of Rs.615.64 crores in goods earnings from the target envisaged in Budget Estimates. Significant shortfalls in earnings as compared to budget were noticed in 'Other Goods' Rs.450.87 crores (27.14 per cent), 'Pig Iron and Steel' Rs.203.54 crores (16.79 per cent) ,'Foodgrains' Rs.165.47 crores (14.55 per cent) and 'Fertilisers' Rs.76.38 crores (11.73 per cent). Amongst the Zonal Railways which could not achieve the targeted goods earnings, Northern Railway topped the list with a shortfall of 50.24 per cent. The shortfall was 18.44 per cent on Northeast Frontier Railway, 9.55 per cent on Southern Railway and 8.74 per cent on North Eastern Railway. The major commodities carried in terms of tonnage and earning therefrom during 1993-94 are given in Annexure.

Contribution of various commodities in earnings



The bulk of earnings in 1993-94 came from carriage of Coal, P.O.L, Iron & Steel, Other goods (i.e. high rated commodities), Cement and Foodgrains.

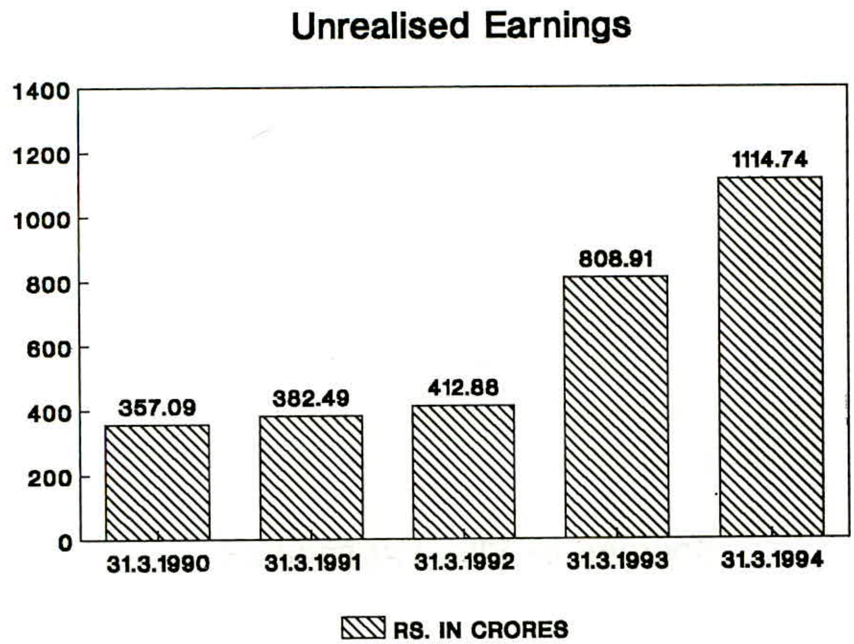
(ii) A review of trend of originating traffic during the last five years ended 1993-94 also indicated that there was near stagnancy in the growth of goods traffic (Tonnage Originating and NTKMs) particularly during 1992-93 and 1993-94; percentage increase in NTKMs in 1990-91, 1991-92, 1992-93 and 1993-94 over the immediate previous year being as low as 2.69, 6.13, 0.86 and nil respectively.



1.4 Unrealised Earnings

(i) The unrealised earnings (Traffic Suspense) rose by 37.81 per cent from Rs.808.91 crores at the end of March 1993 to Rs.1114.74 crores at the end of March 1994. The cumulative balance (Rs.1114.74 crores) as at the end of March 1994 represented 6.11 per cent of the Total Traffic Earnings (Rs.18258.62 crores) during 1993-94.

(ii) Nearly 83 per cent of the unrealised earnings were on account of outstanding freight (Rs.927.73 crores). Northern Railway topped the list with the maximum outstanding amount of Rs.728.29 crores; of this Rs.466.47 crores was due from the Badarpur Thermal Power Plant managed by the National Thermal Power Corporation.



(iii) Demands Recoverable

The Demands Recoverable which represent outstandings in respect of (i) rent lease of Railway Land and Buildings and (ii) interest and maintenance charges on sidings rose by Rs.6.76 crores from Rs.87.48 crores at the end of March 1993 to Rs.94.24 crores at the end of March 1994.

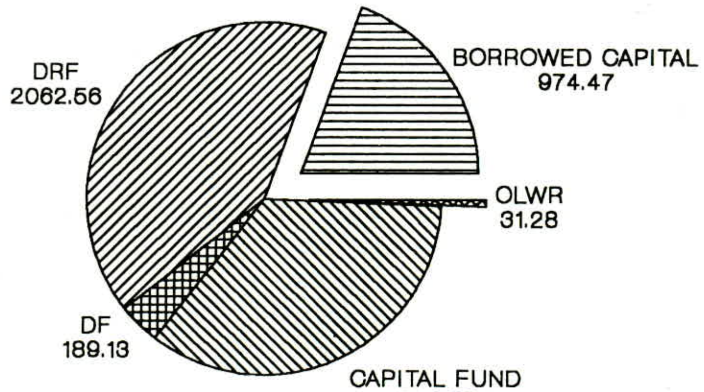
1.5 Plan Expenditure

(i) Against the Budget Estimate of Rs.5600 crores and Revised Estimate of Rs.5300 crores the Plan Expenditure for 1993-94 was Rs.5004.43 crores, met from Borrowed Capital (Rs.974.47 crores) and Internal Resources (Rs.4029.96 crores). The expenditure incurred on acquisition of new assets out of Borrowed Capital exceeded the Budget and the Revised Estimates by Rs.14.47 crores. The amounts spent on acquisition, renewal and replacement of assets out of the funds generated from internal resources viz., Depreciation Reserve Fund, Development Fund, Capital Fund and Open Line Works (Revenue) fell short of the Budget and Revised Estimates. The details are given in the table below:

	Sources of Finance	Budget Estimate 1993-94	Revised Estimate 1993-94 (Rupees in Crores)	Actual Expenditure 1993-94
1.	Borrowed Capital from General Revenues	960	960	974.47
2.	Internal Resources			
i)	Depreciation Reserve Fund	2400	2135	2062.56
ii)	Development Fund	235	220	189.13
iii)	Capital Fund	1960	1943	1746.99
iv)	Open Line Works (Revenue)	45	42	31.28
	Total (Internal Resources)	4640	4340	4029.96
	Grand Total	5600	5300	5004.43

Dependence on Budgetary support provided by the Central Government (Borrowed Capital), to meet the Plan expenditure declined from 49.78 per cent in 1989-90 to 19.47 per cent in 1993-94.

Sources of Plan Expenditure

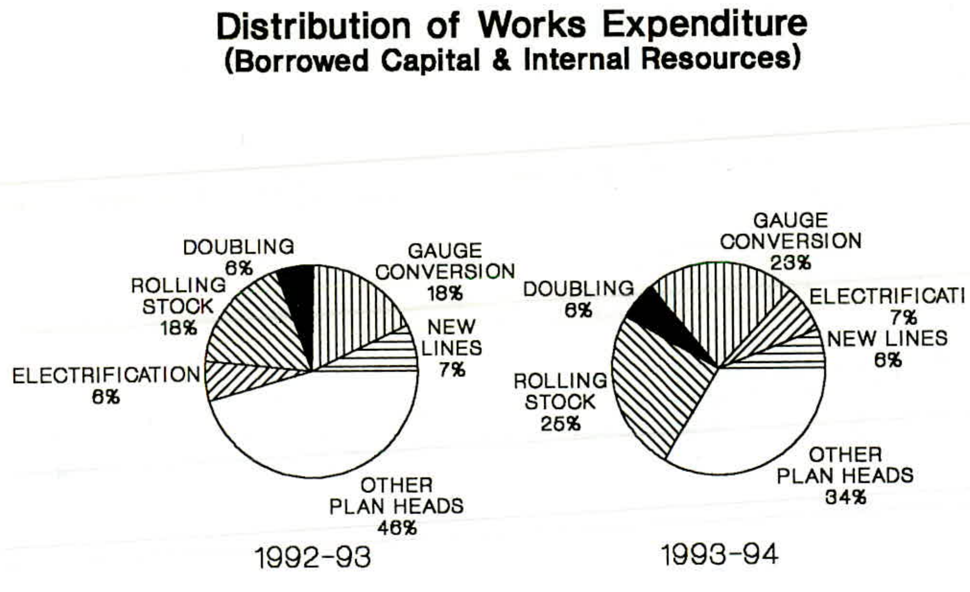


INTERNAL RESOURCES Rs.4029.96 Cr.

(ii) The distribution of Plan expenditure (other than the expenditure not capitalised) met from the Borrowed Capital and internal sources for creation of Block Asset, under the main Plan Heads is shown in the Table below.

Plan Heads	1991-92	1992-93 (Rupees in Crores)	1993-94
New Lines	252.04	269.18	225.76
Gauge Conversion	126.61	678.01	878.08
Doubling	282.01	214.03	228.88
Rolling Stock	261.66	694.29	946.55
Electrification Projects	229.06	232.90	275.75
Passenger Amenities	21.66	34.75	62.78
Other Plan Heads	1604.33	1750.35	1294.00
Total	2777.37	3873.51	3911.80

The expenditure on creation of Block Assets under the Plan heads 'New Lines' and 'Doubling' declined in 1993-94 as compared to 1991-92 by 10.43 per cent and 18.84 per cent respectively.



With the adoption of Unigauge policy, the Railways fixed targets of conversion of 6000 kms of MG track into BG during the Eighth Plan. The conversion undertaken during 1992-93 and 1993-94 was 1351 kms and 1619 kms against the targets of 1200 Kms and 1600 Kms respectively and expenditure of Rs.678.01 crores and Rs.878.08 crores was incurred.

1.6 Undischarged Liabilities

According to the recommendations of the Railway Convention Committee, in respect of new lines, a moratorium is given on the payment of interest on investment during the period of construction and for five years after a line is opened to traffic. The cumulative liability on this account is payable when the line shows a surplus after meeting current dividend. The liability is written off if not paid within 20 years of opening of a line to traffic. The liability on this account which has been showing a rising trend over the years, increased by Rs.155.58 crores (amount accrued Rs.156.81 crores, amount paid Rs.1.23 crores) during 1993-94 and stood at Rs.794.11 crores on 31st March 1993-94.

1.7 Ongoing Works/Projects

A comparative study of Railways Works, Machinery and Rolling Stock Programmes for the years 1989-90 and 1994-95 revealed that as many as 139 Works/Projects which were included in the Programme for 1989-90 were also included in the Programme for 1994-95 as detailed below:-

	Plan Head	No of projects	Anticipated cost	Outlay to end of 1993-94	Balance (3) - (4)	Percentage of progress in monetary value
(a)	New Lines (Construction)	13	1649.14	704.11	945.03	42.70
(b)	Restoration of dismantled lines	1	164.00	79.26	84.74	48.33
(c)	Gauge conversion	3	154.70	37.32	117.38	24.12
(d)	Doubling	10	410.34	315.84	94.50	76.97

	Plan Head	No of projects	Anticipated cost	Outlay to end of 1993-94	Balance (3) - (4)	Percentage of progress in monetary value
(e)	Traffic facilities - Yard remodelling and others	10	95.32	60.10	35.22	63.05
(f)	Computerisation	8	68.30	64.33	3.97	94.19
(g)	Railway Research	4	19.24	6.68	12.56	34.72
(h)	Track Renewals	11	54.16	19.65	34.51	36.28
(i)	Bridge Works	22	108.17	33.99	74.18	31.42
(j)	Signalling and Telecommunication	19	197.25	108.48	88.77	55.00
(k)	Electrification Projects	6	1181.09	676.37	504.72	57.27
(l)	Other Electrical Works	7	40.63	28.20	12.43	69.41
(m)	Workshops - including Production Units	15	583.27	447.49	135.78	76.72
(n)	Amenities for Staff	2	36.97	34.88	2.09	94.35
(o)	Other specified works	3	31.24	10.55	20.69	33.77
(p)	Metropolitan Transport Projects	5	2293.50	1470.74	822.76	64.13
	Total	139	7087.32	4097.99	2989.33	57.82

The expenditure of Rs.4097.99 crores incurred on these works upto 1993-94 had remained partly/wholly unproductive. No dividend was paid to the General Revenues in respect of the expenditure on new lines (Rs.945.03 crores). On investment on works in progress for the current year and previous two years only 50 per cent of the dividend was payable.

The Standing Committee on Railways (1993-94) Tenth Lok Sabha in its Sixth Report presented in April 1994 observed as under:

"Another disturbing aspect of the Railway's working on construction of new lines projects is that on the one hand they postpone or freeze certain projects in certain areas on grounds of paucity of funds yet at the same time take up new projects for some other areas by reprioritising their works programme."

1.8 Comments on Appropriation Accounts

The Summary of Appropriation Accounts (Railways) for the sums expended in the year ended 31st March 1994 compared with the sums authorised in the Demands for Grants for expenditure of Central Government on Railways and passed under Articles 114 and 115 of the Constitution of India is given in Appendix. The position is briefly summed up as under:

(In crores of Rupees)

		Original Grant/ Appropriation	Supplementary	Total	Actual Expenditure	Saving (-)/ Excess (+)
I.	Revenue					
	Voted	21188.77	76.00	21264.77	20208.06	(-) 1056.71
	Charged	12.20	0.10	12.30	2.49	(-) 9.81
II.	Capital					
	Voted	11597.96	0.05	11598.01	11181.18	(-) 416.83
	Charged	2.80	--	2.80	1.38	(-) 1.42
	Total					
	Voted	32786.73	76.05	32862.78	31389.24	(-) 1473.54
	Charged	15.00	0.10	15.10	3.87	(-) 11.23

(i) The over all savings of Rs.1484.77 crores (Appropriations Rs.11.23 crores and Grants Rs.1473.54 crores) constituted 4.52 per cent of the total provision of Rs.32877.88 crores. The saving was the net result of savings in twelve grants and eleven appropriations; and excess in six grants and two appropriations*.

(ii) The supplementary grants and appropriations obtained during 1993-94 constituted 0.23 per cent of the original grants/appropriations against 3.44 per cent in 1992-93.

(iii) In the Revenue section there was an excess of Rs.67.95 crores in five grants and Rs.0.09 crores in two appropriations. Excess in Capital section amounted to Rs.1148.83 crores in one grant.

The excess requires regularisation under Article 115(1)(b) of the Constitution of India.

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* Grant No.16 has three segments; reappropriation of funds is not permissible between the three segments.

(iv) The overall saving in the final provision of Rs.2701.65 crores occurred in twelve grants and eleven appropriations and constituted 11.05 per cent of the total provision under these grants/appropriations. Saving exceeded Rs.100 crores in three cases and ranged between Rs.10 crores and Rs.50 crores in five other cases.

(v) Against the total saving of Rs.2701.65 crores the amount surrendered at the final modification stage was only Rs.940.74 crores.

In two cases (Grant No.11 and Grant No.12) funds were surrendered but the expenditure exceeded the total provisions.

(vi) Contrary to the provisions of the Indian Railways' Financial Code, the Appropriation Accounts of the grants/appropriations prepared by the Railways do not provide explanations for variations between the original (sanctioned) grant or appropriation and the actual expenditure of the year under different sub-heads. The reasons for variations are furnished only with reference to the modified grants/appropriations i.e. the provisions after re-appropriation. The reasons for the entire amount of variations are thus not explained. This also results in an anomalous situation that while there is an excess expenditure over the original (sanctioned) provision under a particular sub head, the explanation is given for a saving which may have occurred with reference to the amount of modified provision (after re-appropriation) and vice versa. In confirmity with the principles of accountability, variations with reference to the sanctioned provisions need to be suitably explained in the Appropriation Accounts.

(vii) Recoveries in reduction of expenditure

The demands for grants/appropriations are for the gross amount of expenditure i.e. inclusive of recoveries arising from use of stores etc. procured in the past or expenditure transferred to other Departments or Ministries. While Appropriation Audit is done by comparing the gross expenditure with the gross amount of grants/appropriations, the excess and shortfall in recoveries indicate inaccurate estimation of recoveries and defective budgeting. In Revenue section against estimated recoveries of Rs.1791.45 crores actual recoveries were Rs.1878.54 crores. In the Capital section against estimated recoveries of Rs.10595.76 crores actual recoveries were Rs.10176.80 crores.

1.9 Allocation of Traffic Receipts and Working Expenses between Passenger and Goods Services in 1992-93.

The summary of end results for 1992-93 reflected the following picture in respect of Costed Accounts of Passenger and Goods Traffic.

(In crores of Rupees)

Type of Traffic	Receipts	Expenses	Gain(+)/ Loss(-)	Variation from Finance Accounts
Passenger	4900.15	6722.99	(-) 1822.85	Due to addition of net sundry other earnings from Catering Services in receipts.
Goods	10903.04	8255.91	(+) 2647.13	Inclusion of certain overheads and exclusion of expenses on ferry and road services in expenses.

(i) About 27.11 per cent of expenses on passenger services during 1992-93 were left uncovered by actual receipts from passenger services. About 16.72 per cent of receipts from goods services during 1992-93 went to make up the loss in the operation of passenger services. There is variation in the extent of such subsidisation from one Railway to another. The subsidisation of passenger services has declined from 29 per cent in 1991-92 to 27 per cent in 1992-93.

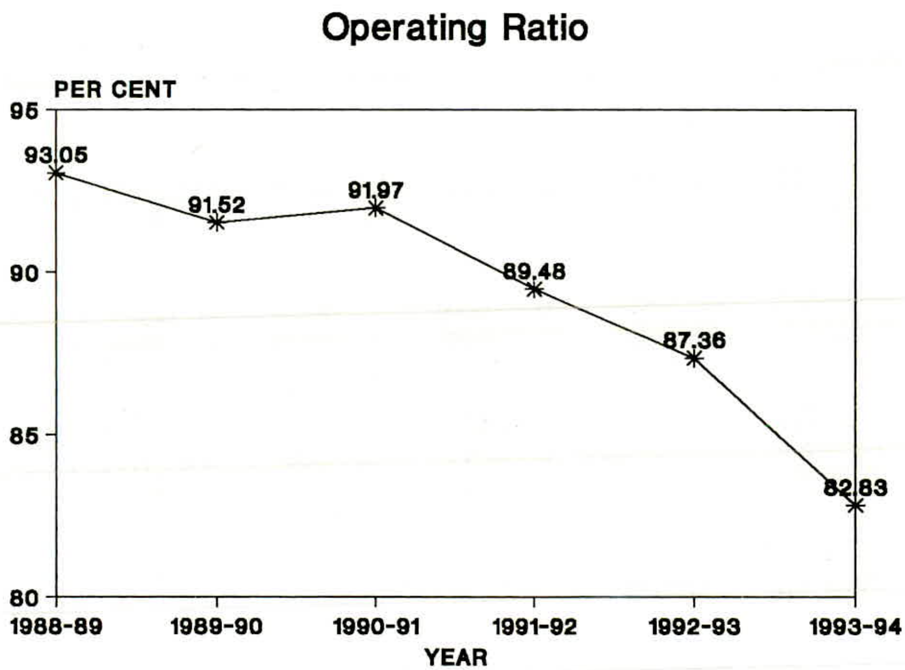
(ii) There is cross subsidisation between the various classes of passenger services provided by the Railways. The extent of such cross subsidisation also varies from one zonal Railway to another. At the All India level, only the A.C. First Class (gain Rs.14.48 crores), A.C. Sleeper Class (gain Rs.78.35 crores) fares and Rs.95.72 crores earned from sundries help to cover cost of operation in Mail/Express services. Large deficits arise from the carriage of Second class passengers (Rs.1065.29 crores) by ordinary trains, parcel luggage and postal material (Rs.375.65 crores), EMU Suburban services (Rs.194.18 crores), Second Class Mail/Express (Rs.155.02 crores), First Class

Mail/Express and Ordinary (Rs.120.35 crores),Catering services (Rs.97.35 crores) followed by A.C. Chair Car Mail/Express (Rs.3.55 crores).

1.10 Efficiency Indices

(i) Operating Ratio: The Operating Ratio represents the percentage of working expenses (including the expenses not yet paid) to traffic earnings (including the earnings not yet realised). While the operating ratio improved from 87.36 percent in 1992-93 to 82.93 percent in 1993-94 for the Railways as a whole, there was a big setback in respect of Metro Railway Calcutta, where the operating ratio suffered a further deterioration from 248.04 in 1992-93 to 341.48 in 1993-94.

The Operating Ratio of all Indian Railways during the last six years is shown in the Chart below



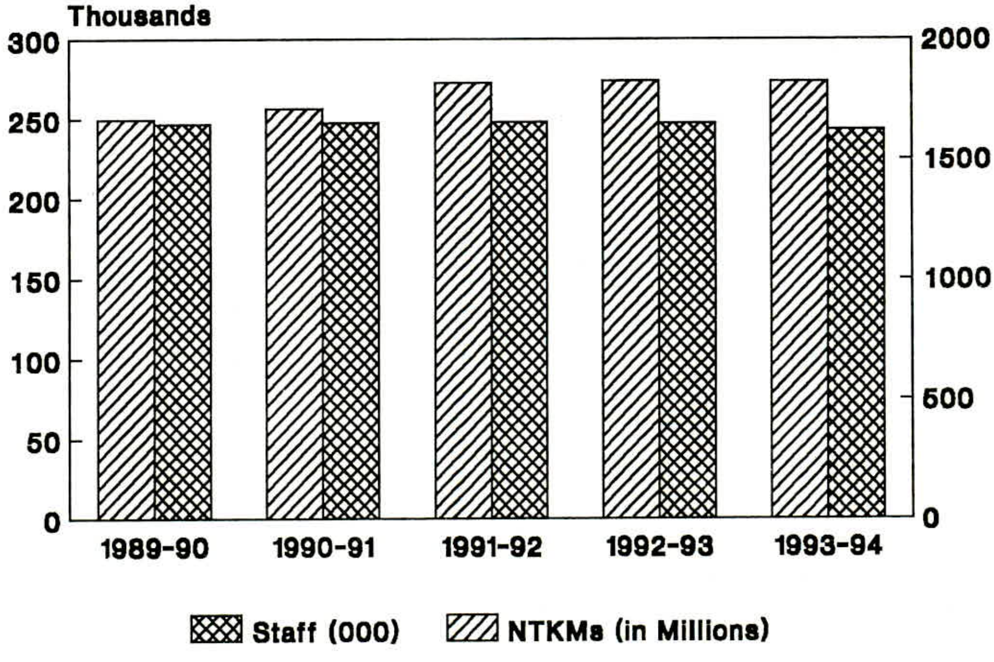
The South Eastern Railway and the Western Railway continued to be the most profitable during 1993-94. The most loss making ones were Metro Railway, Northeast Frontier Railway and North Eastern Railway.

(ii) Staff Productivity: Staff productivity on the Railways is normally measured in terms of volumes of traffic handled per employee.

The strength of employees and the details of goods and passenger traffic in NTKMs in the last five years from 1989-90 to 1993-94 are given below:

Year	Staff (In thousands)	Traffic (In Million NTKMs)	Traffic (Per Thousand employee) NTKM
1989-90	1646.7	249542	151.55
1990-91	1651.8	256776	155.46
1991-92	1654.1	272572	164.79
1992-93	1649.2	273695	165.95
1993-94	1623.2	273444	168.46

Staff Productivity



(iii) Capital-Output Ratio: The Railway Reforms Committee (RRC) observed (1984) that the ratio of net revenue to Capital indicated in budget documents does not truly reflect the health of the Railway organisation because this ratio can be increased by reducing appropriation to DRF and Pension Fund and also by increasing the fare and freight structure. According the RRC, Capital-output ratio (in terms of Capital employed for NTKM which is the real output) would be a more appropriate index to measure the productivity of the capital employed. This indicates the extent to which the innovating operating measures and technological advancements have helped in reducing the capital output ratio. To achieve a higher rate of growth of national income, capital-output ratio has to be reduced. The following table shows the capital-output ratio for total traffic (in NTKMs), carried by the Railways during the 5 years ending 1993-94.

As on	Capital at Charge (Rs. in Millions)	Goods Traffic (NTKM) Millions	Passenger Million PKMs	Traffic in Million NTKMs	Total Traffic in Million NTKMs	Capital at Charge (in Paise) per NTKM
31-3-90	146295	229602	280848	19940	249542	59
31-3-91	161258	235785	295644	20991	256776	63
31-3-92	177125	250238	314564	22334	272572	65
31-3-93	201232	252388	300103	21307	273695	74
31-3-94	208735	252411	296245	21033	273444	76

The table indicates a steadily rising trend in the Capital-output ratio which is indicative of the deteriorating productivity of the Railways. According to the RRC, one of the factors which has the debilitating effect of increasing the capital-output ratio is higher cost overruns due to non-completion of projects in time.

1.11 Recoveries at the instance of Audit

During 1993-94 Rs.22.66 crores were recovered or agreed to be recovered at the instance of Audit. Further an amount of Rs.0.50 crores was also recovered as a result of review on the basis of audit objections.

1.12 Follow up on Audit Reports

The Lok Sabha Secretariat issued instructions (April 1982) to all the Ministries requesting them to furnish notes indicating remedial/corrective action taken by them to the Ministry of Finance (Department of Expenditure) on the various paragraphs, contained in the Audit Report, as soon as they were laid on the Table of the House, duly vetted by Audit.

The position as on 31 December 1994 of outstanding Action Taken Notes on the paragraphs included in the Railway Audit Report upto the period ending 31st March 1993 is indicated below:

	Audit Report	No. of Action Taken Notes Outstanding	Percentage outstanding
1.	No. 10 of 1989-90	11	12.80
2.	No. 10 of 1990-91	18	21.42
3.	No. 10 of 1991-92	19	29.23
4.	No. 10 of 1992-93	23	60.52
		(Sub Paras 81)	

ANNEXURE
(Ref. Paragraph No.1.3 {i})
Contribution of various Commodities in earnings

Commodity	Tonnage Originating (Millions)	Net Tonne Kilometres (Millions)	Earnings (Crores of Rupees)
Coal	167	104014	5193.42
Raw Materials to Steel Plants	33	11274	535.58
Pig Iron & Steel	12	12955	1008.46
Iron Ore for Export	10	5985	274.63
Cement	33	19739	1047.51
Foodgrains	27	35263	971.53
Fertilizers	20	16948	574.62
P.O.L.	26	16512	1459.60
Other Goods	31	29721	1210.13
Misc. Goods Earnings	---	---	281.88
Total	359	252411	12557.36

CHAPTER II

EARNINGS

2.1 TRAFFIC EARNINGS

2.1.1 SIDINGS

2.1.1 (i) Eastern and Western Railways: Non-realisation of Railway dues due to failure to observe prescribed procedure

Pursuant to the recommendation contained in 110th Report of the Public Accounts Committee VII Lok Sabha 1981-82, the Railway Board reiterated its earlier directive of March 1977 to the Railways to introduce a system of joint continuous check of all railway wagons interchanged with major Railway users such as collieries to assess the damages and deficiencies for recovery of the cost from the latter. Failure to observe the prescribed procedure of joint check resulted in non-realisation of Rs.7.86 crores from two steel plants and five collieries on Eastern Railway and two siding owners on Western Railway.

Eastern Railway

i) **Durgapur Steel Plant:** Durgapur Steel Plant (DSP) did not agree to the instructions issued by the Railway Board involving continuous joint check of all wagons because of operational constraints.

Pending finalisation of the issue of continuous joint check of interchanged wagons, the Railway Board directed Eastern Railway in May 1980 to conduct joint random check of 22 items for working out deficiencies. However, Eastern Railway preferred bills for 6 components from June 1980 to September 1989. In a meeting held between Railway Board, the Steel Authority of India and Durgapur Steel Plant in October 1989 it was decided that revised bills covering deficiencies on 22 items instead of 6 items would be preferred by Eastern Railway from May 1990 onwards on the basis of joint check conducted at the end of 1989. A joint check of 22 components was conducted in December 1989 and based on the unit cost of deficiencies and damages assessed, a bill for Rs.35.72 lakhs was preferred in January 1991 for all wagons interchanged between May 1980 to December 1989. However, the amount had not been realised as of January 1995.

According to the revised system prescribed by the Railway Board in consultation with the Ministry of Steel and the Steel Authority of India from January 1990, joint checks would be conducted for three weeks at intervals of six months and would cover all items and deficiencies. The average cost of debits per 4 wheelset unit arrived at by such joint check was to be the basis for raising debits till the end of the next check.

Although five such joint checks were conducted between January 1990 and December 1992, Eastern Railway did not prefer any bill for the damages/deficiencies during January 1990 to December 1993. The amount due from the Steel Plant was worked out as Rs.21.78 lakhs.

The Railway Administration stated in December 1994 that: (i) certain documents required by the DSP in September 1994 for the debits of Rs.35.72 lakhs upto December 1989 had since been supplied; and (ii) fresh debits of Rs.21.78 lakhs had been raised against DSP in August 1994 for damages covering the period January 1990 to December 1993.

The Ministry of Railways (Railway Board) directed (January 1995) that the Zonal Railway should make an all out effort for early realisation of the amount and should also ensure that bills are raised and recovered in time in future.

ii) Indian Iron Steel Company (IISCO): Wagons supplied to Indian Iron and Steel Company (IISCO) are interchanged through Herapur Exchange Yard During the period January 1990 to December 1993 six joint checks were conducted in January and December 1990, June 1991, April and November 1992 and May 1993 The amount due from IISCO for damages/deficiencies was assessed at Rs.5.66 crores based on the average cost of debit per 4 wheeler applied to all wagons interchanged at this yard. However. Eastern Railway preferred bills for Rs.10.63 lakhs which were related to actual damages and deficiencies noticed in respect of the wagons sample checked. As a result an amount of Rs.5.56 crores was short billed.

The Railway Board agreed with Audit that since the assessment of deficiencies was done jointly as per agreed procedure, the Steel Plant should pay accordingly and directed the Zonal Railway to prefer bills on the basis of joint checks.

iii) Colliery Sidings: Against bills for Rs.37.92 lakhs raised by Eastern Railway on three private colliery sidings owners for the loss of distributor valves for the years 1987-88 to 1993-94, the parties paid Rs.1.81 lakhs. The balance amount of Rs.36.11 lakhs could not be recovered. Eastern Railway failed to raise bills for 378 distributor valves valued at Rs.34.40 lakhs, lost due to theft in these and two other private collieries during April 1990 to March 1993. Consequently an amount of Rs.70.51 lakhs had not been realised from the siding owners.

The Railway Administration stated, in November 1994, that bills for the loss of distributor valves could not be raised in the past since the system of joint checking was not being followed and the place of theft/loss could not be pinpointed.

Western Railway

iv) In Kota division of Western Railway, bills for damages to and deficiencies in wagons raised against two siding owners were rejected by them in October 1991 and

January 1992 on the ground that the rakes had not been certified as being free from damages/deficiencies by the Railway staff before these were handed over to the siding owners. This was because the system of checking had not been introduced thus far. The amount of debit raised against the siding owners aggregated to Rs.91.75 lakhs from January 1991 to April 1994.

The Railway Administration stated (December 1994) that joint checks had since been conducted and it was seen during such checks that deficiencies were much less than assessed earlier. The Railway Board stated (January 1995) that fresh bills will now be raised by applying the results of these checks retrospectively and fresh checks will be conducted six months later. A proper system of joint checks agreed upon by both the Railways and the siding owners is, however, yet to evolve. The Railway also needs to clarify how the deficiencies assessed earlier occurred and how these have been accounted.

2.1.1 (ii) Eastern Railway: Short recovery of interest, maintenance and depreciation charges

Oil Companies are required to pay recurring and non-recurring charges at the prescribed rates in respect of the pipe lines which pass through Railway embankments, culverts and bridges. The recurring charges which were initially fixed at 9.5 per cent of capital cost of bridges (4.5 per cent as interest, 4 per cent for maintenance and 1 per cent for depreciation) were raised to 10.5 per cent from May 1966 and 11 per cent from April 1988 onwards with increase in the rate of dividend to General Revenues.

Haldia-Barauni pipe line of Indian Oil Corporation (IOC) completed in May 1966 passed through Railway land at 8 locations and 5 Railway bridges on Danapur Division. Railway Administration, however, did not execute an agreement with IOC for recovery of recurring charges. Railway Administration realised annual interest, maintenance and depreciation charges of Rs.63.78 lakhs at the uniform rate of 9.5 per cent of the prescribed percentage of the capital cost in respect of five bridges for the period from 1966-67 to 1979-80 against the amount of Rs.72.42 lakhs due for the period. The amount due for the period from 1980-81 to 1991-92 at the prescribed rate was Rs.69.50 lakhs. The Railway did not prefer bills for the amount.

The Railway Administration stated (January 1995) that the agreement with IOC would be cleared soon. The Railway Administration further confirmed that bills for Rs.69.50 lakhs had also been preferred against IOC.

2.1.1 (iii) Western Railway: Short recovery of maintenance charges of private siding

According to instructions issued by the Railway Board in April 1982, maintenance charges for the Civil Engineering portion of private sidings wherever these are maintained by the Railways should be levied "on track kilometre basis" instead of "On capital cost basis". These instructions were made applicable for recovery of maintenance charges of Overhead Electric (OHE) installations in private sidings also as per orders issued by the Board in November 1988. In respect of three private sidings, Railway Administration did not implement the instructions of the Board and continued to levy maintenance charges on the basis of capital cost of OHE installation, although this was pointed out by Internal Finance in September 1991. Consequently, an amount of Rs.17.49 lakhs had not been realised from the siding owners for the period from November 1988 to March 1993. The amount of short recovery would be more taking into account the revision of rates of maintenance charges every five years as stipulated in Board's instructions of April 1982.

The Railway Board stated (January 1995) that the revised charges had since been raised for an amount of Rs.26.76 lakhs against the sidings concerned. The details of recovery are awaited.

2.1.1 (iv) South Central Railway: Non-recovery of maintenance charges from siding owners

According to the terms and conditions of agreements between the private siding owners and the Railway Administration, the siding owners are required to pay charges for maintenance of sidings within the Railway premises.

South Central Railway maintained the portion in the Railway premises of six sidings since their opening during September 1978 to July 1993. The Railway Administration, however, did not demand payment of maintenance charges from the siding owners.

The matter was taken up with the Railway Administration (November 1993). The Divisional Office, Guntakal expressed (January 1994) its inability to prefer the bills on the grounds that information regarding computed length of siding within Railway premises was not made available by the Construction Organisation. Subsequently, the Railway Administration preferred bills for Rs.45.17 lakhs towards maintenance charges recoverable from the six sidings owners for the period from September 1978 to March 1994. An amount of Rs.10.98 lakhs had been received and the remaining amount of Rs.34.19 lakhs was still outstanding (January 1995).

The Railway Board admitted (January 1995) that there had been delays in preparing and forwarding bills to the concerned parties and stated that action was in progress for recovery of the outstanding amount.

2.1.1. (v) Western Railway: Loss due to non-revision of siding charges

Siding charges for the placement and removal of wagons are calculated on the basis of trip time and shunting hour cost. The trip time is arrived at by conducting placement trials between the serving station and the siding. The shunting hour cost is notified by the Railway Board every year. According to orders issued by the Railway Board in April 1977 fresh placement trials should be conducted if there is, inter alia, a drastic change in the volume or pattern of traffic dealt with in the siding.

The siding charges for placement and removal of wagons in respect of M/s. Indian Farmers Fertilisers Co-operative Limited (IFFCO) metre gauge siding at Gandhidham were fixed in September 1988 on the basis of a trip time of 253 minutes based on the placement trials. The daily average number of wagons loaded in the siding increased from 10.95 in 1988-89 to 28.44 in 1992-93 representing an increase of 158 per cent. A test check of the records of Gandhidham Marshalling Yard pertaining to six months between May 1990 and October 1993 revealed that the actual trip time ranged from 306 to 396 minutes which gave average trip time of 340 minutes. The necessity to reassess the trip time was brought to the notice of Railway Administration by Audit in April 1992. No action to reassess the trip time was, however, taken by the Railway Administration.

Based on the average trip time of 340 minutes, it was assessed in Audit that the Railway Administration had suffered a loss of Rs.11.65 lakhs for the period from January 1991 to October 1993. From November 1993 the siding was opened for levy of freight charges on through distance basis upto the buffer end of the siding and siding charges were not required to be levied on train load traffic.

The Railway Administration stated (December 1994) that since the last trial was conducted in August/September 1989, there were no grounds for another exercise so early. This was not correct in view of the drastic change in the volume of traffic involving increase of 158 per cent since the last trials were conducted.

With regard to the same siding, in Paragraph 4.6 of the Report of the Comptroller and Auditor General of India for the year ended 31st March 1988, it was mentioned that siding charges for the period 8th May 1985 to 30th April 1987 were to be recovered on the basis of actual utilisation of engines. In November 1989, the Railway Administration raised a demand on the siding owner for the payment of arrears of siding charges amounting to Rs.13.16 lakhs on this account. The siding owner was willing to pay the amount provided the Railway assured that no further arrears would require to be paid. The Railway Administration had neither given the assurance sought for by the party nor identified any further arrears for payment. Consequently the dues amounting to Rs.13.16 lakhs had not been recovered from the party even after a lapse of almost five years (May 1994).

The Railway Administration stated (December 1994) that it had referred the matter to the Railway Board in April 1990 and the Board's decision was awaited.

The Railway Board stated in January 1995 that necessary undertaking had been given to the party and the amount of Rs.13.16 lakhs would be recovered shortly.

2.1.1. (vi) Southern and South Central Railways: Loss due to short recovery of siding charges in respect of electrified sidings

Siding charges for the placement/removal of wagons from private sidings are recovered from the siding owners for the use of locos at rates notified by Ministry of Railways (Railway Board) every year. Despite the progressive electrification of railways, the Railway Board had not notified the rates for electric locos. In August 1990, on a reference made by the South Central Railway, the Railway Board advised Zonal Railways to calculate the rates for electric locos for local application of their system as was already being done by the South Eastern Railway. Test-check of records of South Central Railway and Southern Railway revealed as under:-

i) Recovery of charges based on rates applicable for steam/diesel locos instead of electric locos on five sidings on South Central Railway, electrified between November 1985 and August 1990 resulted in short recovery of Rs.52.94 lakhs (as assessed by Audit) from the siding owners for varying periods upto March 1992.

ii) On Southern Railway despite the Board's instructions issued in August 1990, siding charges for use of locos continued to be recovered on two sidings which were electrified in June 1986 (FCI Sever BG) and June 1989 (KOK/IOC MG) with reference to rates prescribed for steam/diesel locos. In the case of another siding electrified in June 1990 (KOK/ONGC MG), the rates for electric locos were applied only from July 1992. Failure to calculate and apply the rates for electric locos in these three cases resulted in short recovery of siding charges amounting to Rs.50.70 lakhs (as assessed by Audit) for varying periods from April 1988 to July 1992, April 1990 to January 1993 and July 1990 to January 1992 respectively.

The loss of revenue of Rs.103.64 lakhs could have been avoided had the Railway Board and the Zonal Railways taken timely action to apply the correct rates relevant to electric locos.

The Railway Board stated in January 1995 that:

(i) on Southern Railway debits of Rs.50.64 lakhs in respect of MG sidings had been worked out provisionally and raised against the concerned firms and undercharges in respect of BG sidings also would be worked out for recovery, and

(ii) the actual amount due from various siding owners would be worked out by South Central Railway.

2.1.1 (vii) Eastern Railway: Loss due to non-execution of agreement

Eastern Railway undertook maintenance of private siding at Giridh upto December 1992 on recovery of maintenance charges. The Railway replaced the missing/stolen fittings but did not raise bills for the cost of fittings so replaced upto December 1989. The Railway raised bills for Rs.13.80 lakhs in October and November 1991 (subsequently revised to Rs.12.84 lakhs) towards cost of permanent fittings replaced during January 1990 to October 1991. The party refused to pay the bills on the ground that there was no provision in its agreement for recovery of such cost and no such bills had been raised in the past though the siding had been in operation since 1889. The Railway had since stopped maintenance of the siding (January 1993). The cost of permanent fittings replaced during November 1991 to December 1992 was Rs.15.64 lakhs.

The Railway could not produce a copy of agreement for scrutiny of Audit. The failure on the part of the Railway to secure its interests by way of a clear agreement for recovery of lost/stolen fittings from the party resulted in a loss of Rs.28.48 lakhs from January 1990 to December 1992.

2.1.1 (viii) South Eastern Railway: Non-recovery of cost of damages to wagons

Ten loaded wagons were handed over to Bokaro Steel Plant (BSP), five prior to August 1986 and the remaining five between April 1987 and October 1987. These were returned to Railway Yard between May 1983 and December 1987 (some after detention of 18 months) and were noticed to have incurred irreparable damages. Railway Administration raised debit of Rs.31.05 lakhs on BSP in April 1988 on account of damages to the wagons.

In June 1991, BSP asked for copies of joint check reports of damages and deficiencies noticed in wagons and also for the amount realised from disposal of condemned wagons. Railway Administration preferred a revised claim after deducting the amount of Rs.4.35 lakhs realised from disposal of condemned wagons. Railway Administration neither furnished the copies of joint check reports to BSP in respect of the claim nor could it confirm to Audit that the system of joint check was in vogue. Consequently the amount of Rs.26.70 lakhs could not be realised.

The Railway Board stated (January 1995) that the system of joint assessment of damages to wagons occurred within the Steel Plant was now enforced. The Railway Board could not furnish the details of recovery of damages to the wagons.

2.1.2 CLASSIFICATION

2.1.2 (i) Northern Railway: Loss of revenue due to delay in revision of classification

The Railway Tariff prescribes subsidised freight charges for certain commodities depending upon the end use. Foodgrain items indexed under `Grain and

Pulses - Division `A' and Division `B' are charged at subsidised rates at Class-85 as these items are basically required for human consumption.

However, in the absence of a separate classification even consignments of barley, jawar and maize booked to distilleries and other industries were also charged at the subsidised rates. Audit took up the matter with Northern Railway Administration in June 1989 but the Railway Administration did not agree (February 1992) to a separate classifications for foodgrains items intended for industrial use. However, on a reference made in June 1992 by Audit to the Railway Board, the Board accepted the audit observation and decided to charge `Barley with or without husk' as `Grain and Pulse-NOC' at Class-130 (Wagon load) with effect from 15th January 1994. In the mean time the Railway had lost revenue of Rs.32.71 lakhs on movement of barley traffic booked from some of the stations during April 1992 to December 1993 alone. The loss could have been avoided had the Railway Administration and the Railway Board taken expeditious action on Audit observation made in June 1989

The Railway Board stated, in January 1995, that volume of traffic of this commodity for other than human consumption being very meagre, the matter was not taken up earlier for reclassification.

2.1.2 (ii) Southern Railway: Short recovery of freight due to incorrect classification of goods

`Bark' as specifically classified under "Drugs, Crude or raw" was chargeable at class rate (wagon loads) 160 upto 31 March 1992 and 165 from 1 April 1992. All other types of Bark `not specifically classified' (Leham, Kherring etc) were chargeable at class rates (wagon loads) 170 upto March 1992 and 175 from April 1992.

During test check by Audit of accounts of three stations on Southern Railway, it was noticed that Leham Bark was charged at Class rate 95 from April 1989 upto March 1992 and 100 from April 1992 to October 1993 on the basis of declaration by consignors showing Leham Bark as Tan stuff for use of tanning. This had resulted in short realisation of freight of Rs.17.09 lakhs on these three stations.

It was observed that :

- the Accounts Branch of the Railway had commented upon the incorrect classification of Bark in July 1991;

- in July 1992, the Northeast Frontier Railway (the originating Railway) had recommended to the Indian Railway Conference Association (IRCA) that Leham Bark should be classified at class rate 165 (wagon load) applicable to drugs in view of the end use;

- in November 1992, the Commercial Committee had approved the aforesaid reclassification and the IRCA had approached the Railway Board in December 1992;

- the Board conveyed necessary sanction for reclassification in October 1993 to take effect from November 1993.

The extent of short recovery of freight could have been minimised if prompt action had been taken for reclassification of the commodity when the incorrect classification was pointed out by the Accounts Branch of Southern Railway.

2.1.3 ROUTING

2.1.3 (i) Western Railway: Loss of revenue due to invoicing of goods traffic by closed routes

Rules provide that when the shortest and the cheapest route is partially or wholly closed for traffic, traffic shall be carried over the next shortest open route and freight will be levied as for the next cheapest open route.

Non observance of the rules on Western Railway resulted in loss of revenue aggregating to Rs.31.76 lakhs in the following two cases:-

(i) Following the closure of Degana-Merta Road Section on Northern Railway from 13 November 1993 due to gauge conversion, petroleum and other lubricant traffic booked from Khari Rohar Road Railway Station and Indian Oil Corporation (IOC) siding Sabarmati and carried by the next shortest open route viz., Palanpur-Phulera-Rengus-Rewari was charged by the former (shorter) route resulting in undercharge of freight amounting to Rs.18.59 lakhs during November 1993 to May 1994.

(ii) During the period of closure of Bikaner-Merta Road Section on Northern Railway from 15 April 1992 due to gauge conversion, traffic booked from IOC siding Sabarmati and carried by the next shortest route viz., Bhildi-Ratanagarh was charged by the former (shorter) route; this resulted in under charge of freight amounting to Rs.13.17 lakhs during April 1992 to June 1993.

In both the cases, the Railway Administration did not obtain the consent of the parties for payment of freight by the next shortest route.

The Railway Board stated (January 1995) that clarifications were being sought from the Zonal Railway in the matter.

2.1.3 (ii) Western Railway: Avoidable expenditure due to booking and carriage of traffic by longer route

Prior to March 1987, the rationalised route for the fertiliser traffic from M/s. Krishak Bharati Co-operative (KRIBHCO) siding to BG stations east of Tughlakabad on Northern, North Eastern, Eastern and Northeast Frontier Railways was via Mathura Junction - Tughlakabad. From 1st March 1987, this longer route was applicable only to traffic for which the shortest route was via Bhopal or via Tundla. Accordingly, the fertiliser traffic of KRIBHCO was to move via Udhna - Jalgaon Naini, which was the shortest route, to the stations east of Tughlakabad on Northern, Eastern, North Eastern and Northeast Frontier Railways from 1st March 1987

During September 1987 to August 1988, consignments of fertilisers continued to be booked, charged and carried via Mathura Junction - Tughlakabad, instead of via Udhna - Jalgaon - Naini, due to non-implementation of the revised routing instructions by the commercial staff. As M/s. KRIBHCO had not opted for the longer route nor was the route prescribed under the rationalisation scheme, they preferred claims for refund of the overcharge of freight. Due to non-settlement of the claim by the Railway Administration till October 1992, KRIBHCO filed applications in the Railway Claims Tribunal. Considering that it might be difficult to defend the case, the Railway Administration decided to settle the case out of Court and paid Rs.45.15 lakhs as refund of freight overcharged and Rs.0.48 lakh on account of other legal expenses (November 1993).

Failure of the Railway Administration to carry the traffic by the shortest route led to haulage of the wagons by the longer route resulting in avoidable expenditure of approximately Rs.38.97 lakhs on extra haulage and litigation.

The Railway Administration admitted that the failure of Railway staff to comprehend the rationalisation orders led to undercharge.

2.1.4 DEMURRAGE

2.1.4 (i) Western Railway: Loss due to non-revision of demurrage charges recoverable from handling contractors

The Railways levy demurrage charges on detention of wagons beyond the permissible free time. The rates of demurrage charges recovered from the general public are higher than those levied against handling contractors.

The rates of demurrage charges levied on the handling contractors for transhipment operations, which were fixed in March 1962, have not been revised over a period of 32 years (May 1994), although there have been regular enhancements in the rates of demurrage charges for the public. The earning capacity of BG and MG wagons has gone up by 1241 per cent and 1018 per cent respectively over these years. The demurrage rates leviable on handling contractors calculated as a percentage of the earning capacity of wagons declined from 20.3 in 1962-63 to 1.5 per cent in 1993-94 in respect of BG wagons and from 23 per cent in 1962-63 to 2 per cent in 1993-94 in respect of MG wagons. Against this, the demurrage charge levied on general public had been increased from 56 to 70 per cent and from 87 to 130 per cent in 1993-94 in respect of BG and MG wagons respectively between 1962-63 and 1993-94.

The need for revision of rates of demurrage charges for handling contractors was brought to the notice of the Railway Administration by Audit in January 1986 and June 1990 but no action has been taken as yet (May 1994).

A test check of the records of Sabarmati Transhipment Point conducted in April 1994 revealed that during the period from January 1991 to December 1993, an amount of Rs.9.45 lakhs was levied as demurrage charges on handling contractors in connection with the transhipment of BG and MG wagons.

Based on a rate of 20.3 per cent and 23 per cent of the earning capacities of BG and MG wagons respectively prevalent in 1962-63, the loss of revenue due to non-revision of demurrage charges in connection with transhipment operations works out to Rs.103.26 lakhs for the period from January 1991 to December 1993 in respect of the Sabarmati Transhipment Point alone.

The Railway Board stated (February 1995) that it had been decided to revise the demurrage rates for handling contractors with effect from 1st October 1994.

2.1.4 (ii) Western Railway: Loss of revenue due to incorrect determination of placement time for demurrage

According to the extant instructions, wagons are deemed to have been placed in a siding and made over to the siding user when the wagons are placed at the point of interchange and the siding user is informed in writing that the wagons have been so placed. Detention to wagons and corresponding levy of demurrage is determined with reference to such placement.

A test check of the records of the Gujrat Ambuja Cement Limited Siding, Kodinar, conducted by Audit in December 1993, revealed that these instructions were not followed and on arrival of successive rakes in the yard, the placement was reckoned from the time of completion of the loading/unloading of the preceding rake or earlier rake and not from the time a specified rake was actually placed at the point of interchange. This irregularity in calculation of detention had continued since the opening of the siding (June 1987) and resulted in loss of revenue aggregating to Rs.84.84 lakhs upto November 1993 on account of short recovery of demurrage charges.

The Railway Board stated, in January 1995, that in view of the traffic moving by alternative modes, all incentives had to be given to the party to retain the traffic. The Railway Board did not clarify the reasons why this could not be done by formal relaxation of the rules and levy of concessional charges after due consideration under orders of the competent authority.

2.1.4 (iii) Northern Railway: Non-recovery of demurrage charges due to delay in fixation of free time for BTPN Wagons

New bogie type tank wagons (BTPN), for transportation of petroleum products, were put into service from November 1989. The free time for loading and unloading of these tank wagons was not specifically notified; as a result the station staff did not calculate the demurrage charges to be recovered from the oil Companies.

Although one of the stations over Northern Railway, where traffic in new BTPN Wagons was received, sought clarification (January 1990) in this regard, the Railway Administration did not take up the matter with the Railway Board. It was only in February 1992 that the Board advised that free time allowed for other tank wagons was applicable to BTPN wagons also.

The oil companies represented that the free time allowed for the BTPN wagons was not considered adequate, but the Board after arranging time schedules on Zonal Railways decided that there was no justification for enhancing free time for loading/unloading and directed Zonal Railways to recover the outstanding demurrage charges by March 1993.

As a result of delay of two years in deciding the issue and thereafter failure to effect recovery, demurrage charges of Rs.66.50 lakhs remained outstanding for the period November 1989 to February 1994.

The Ministry of Railways (Railway Board) stated in January 1995 that an amount of Rs.40 lakhs had already been recovered and all efforts would be made to recover the balance amount.

2.1.5 DETENTION

South Central Railway: Heavy detention to coal wagons due to delay in providing dump facility

The coal traffic for a paper mill was diverted from Ariskeri - Bangalore M.G. Section to an alternative route via Kariganur (BG) with transhipment at Kariganur (MG) with effect from 28 January 1993 due to gauge conversion from metre gauge to broad gauge.

The Railway Administration initially agreed (February 1993) to allow direct transhipment of coal by the mill at Kariganur but later (April 1993) decided that it should be made via a dump at the same transhipment point.

Accordingly, the mill approached (April 1993) the Railway Administration for allotment of suitable plots at Kariganur for developing dump facility. In November 1993 after a delay of 6-7 months, the mill was advised about the allotment of plots for dump operations. The mill, however, did not accept the allotment on the ground that the dump facility was permissible only upto December 1993. Thus, the party continued to follow the direct transhipment operation.

Operational constraints and want of matching empty MG wagons for direct transhipment resulted in heavy detention to stock for 3081 wagon days involving a loss of earning capacity of Rs.31.02 lakhs during the period February to October 1993. But for the delay of over 6 months in allotting the plots for the coal dump, the detention to BG wagons could have been avoided.

The Railway Board stated in January 1995 that the entire exercise was completed over a period of 6-7 months and that a more expeditious decision could not be taken in view of the fact that an appropriate plot could not be allotted to the firm owing to gauge conversion work and also non-availability of land at convenient location to facilitate dumping and reloading into metre gauge wagons. The reply of the Railway has to be viewed in the context of the needs of a commercial organisation which should anticipate situations and develop quick responses. Inability of the Railways to take timely and expeditious action had caused loss of revenue of Rs.31.02 lakhs to the Railways.

2.1.6 NON-REVISION OF MINIMUM FREIGHT

Southern Railway: Loss of earning due to delay in the revision of minimum wagon load weight

Wagon load rates prescribe certain minimum chargeable weight for each 4 wheeled wagon for each commodity depending on its loadability. The minimum weights for different Railways in respect of charcoal were fixed (1970s) based on test weighments. Since this weight (110 quintals) was much too low as compared to the weight prescribed by other Railways except Northern Railway, the need for its revision was brought to the notice of Commercial Branch from time to time. The

Commercial Committee also recommended (1985) fresh test weighments for revision of minimum chargeable weight since the existing weights were fixed long ago. Test weighment conducted during 1990-91 indicated average loadability of 113.21 quintals per wagon. A test check by Audit also revealed that the actual average weight of charcoal loaded in 735 covered wagons at Tiruchchirapalli Goods during 1990-91 was 125 quintals. Notwithstanding this, the weighment of charcoal wagons was dispensed with from August 1991 at Tiruchchirappalli Goods where there was regular booking of this commodity, despite availability of a weighbridge, and freight continued to be charged on the basis of the minimum weight of 110 quintals fixed during 1970s. It was only during February 1993 that the Commercial branch recommended enhancement of the minimum weight for Southern Railway from 110 quintals to 115 quintals, after conducting test weighments at the instance of the Railway Board. The enhanced minimum weight of 115 quintals was, however, given effect to from December 15, 1993 only. The delay in the revision of minimum weight resulted in a loss of earnings of Rs.9.42 lakhs for the period from August 1991 to September 1993. The loss in earnings for the period prior to August 1991 would be extra.

The Railway Board stated in January 1995 that because of low materialisation of traffic, test weighment could not be conducted as per the recommendations of the Commercial Committee (1985). It was only in 1991 that some traffic materialised and test weighment of 57 wagons revealed an average weight of about 113 quintals. This was not correct since there was movement of 9441 wagons of charcoal traffic during 1988-89 and 1989-90.

2.1.7 OTHERS

2.1.7 (i) Western Railway: Avoidable extra expenditure in coal handling contract at transhipment point

Handling contracts for transhipment of coal between broad gauge and metre gauge wagons prescribed two separate rates of Rs.6.00 and Rs.8.50 per 100 quintals for direct transhipment and for transhipment through the coal dump respectively.

The transhipment of coal at the Sabarmati point was done direct from the broad gauge wagons into the metre gauge wagons placed about 15 metres apart. For this operation which did not involve use of coal dump, the contractor was paid the higher rate of Rs.8.50 per 100 quintals. This had resulted in avoidable extra expenditure of Rs.99.84 lakhs during the period October 1990 to March 1994.

Similar irregular payments involving extra expenditure of Rs.104 lakhs were commented upon twice in the Reports of the Comptroller and Auditor General of India for the years 1983-84 and 1989-90. However, remedial/corrective action had not been taken by the Railway Administration.

The Railway Administration justified (December 1994) the higher rate on the grounds that the transhipment involved two operations - loading and unloading and the labour had to walk the distance of 15 metres. The reply is not tenable as the operations of loading and unloading are inherent in any case of transhipment from one wagon to another and the distance travelled is negligible. Therefore, payment at higher rate was not justified

2.1.7 (ii) Western Railway: Loss of revenue due to short recovery of shunting charges

BCX, BCN, BOX-N, BKCX, BFR, BOB, BRS, BRH, BOI and BFU wagons, having a carrying capacity of above 48 and upto 60 tonnes are equated with 2.5 four wheeled wagons for levy of shunting charges. BTPN tank wagons with carrying capacity of approximately 55 tonnes, are equated with 2.5 four wheeled wagons for levy of demurrage.

A test check of the records of Bais Godam and Idgah Agra stations conducted in February 1994 revealed that the shunting charges for placement of BTPN oil tank wagons in the sumps of oil companies were calculated by equating them to two four wheeled wagons treating them on par with ordinary eight wheelers. This resulted in loss of revenue of Rs.23.46 lakhs in respect of these two stations during the period from June 1991 to March 1994.

The Railway Board stated (January 1995) that instructions had been issued to Zonal Railways to treat BTPN wagons as 2.5 four wheeled wagons for computing the sump charges. The Railway Board also need to review whether these charges were computed and recovered correctly on other sidings.

2.2 NON-TRAFFIC EARNINGS

Central Railway: Non-levy of conservancy charges

Railway contractors, book stall keepers and other non-railway organisations who frequent Railway premises utilise conservancy services at Railway stations and Railway colonies.

To recover a part of the expenditure incurred on the conservancy services Northeast Frontier and Western Railways have prescribed levy of conservancy cess charges at specified rates on non-Railway persons/organisations, Central Railway, however, is not recovering similar charges from non-Railway persons. As a result, it is estimated that it has lost revenue amounting to Rs.2.71 crores during five years from April 1989 to March 1994 computed with reference to the rates fixed by the Western Railway.

The Railway Board stated (January 1995) that it had not issued instructions to Zonal Railways to impose conservancy charges and the matter was left to the Zonal Railways. The Board also stated that levy of conservancy charges might result in increase in rates quoted by the contractors. This was, however, not borne out by comparison of rates for similar items on Western and Central Railways.

CHAPTER III

WORKS AND CONTRACT MANAGEMENT

3.1 PROJECTS

3.1.1 Southern Railway: Bangalore City - Mysore Gauge Conversion Project

I. Introduction

The Bangalore City - Mysore gauge conversion project was sanctioned in 1979-80 on a certificate of urgency. The project was expected to be a logical extension of Guntakal - Bangalore City Gauge conversion and to provide a direct BG rail link to Mysore. Though the conversion work was started in April 1979, the estimate for Rs.26.01 crores (Gross) and Rs.24.59 crores (net) was sanctioned in June 1984 and no target date was fixed for its completion. The project was completed and the section was opened for traffic after 13 years in September 1992. Expenditure of Rs.162.33 crores was booked on the project upto October 1993.

2. Project cost

The original estimated project cost of Rs.24.59 crores (June 1984) was revised by the Railway in February 1990 and was sanctioned by the Board in February 1991 for Rs.76.94 crores representing an increase of 212 per cent. The Administration attributed the increased cost to

- cost escalation (Rs.37.59 crores)
- incorrect estimation of earth work quantity (Rs.0.42 crore); and
- change in specification of rails etc., and use of PSC sleepers in lieu of CST-9 and wooden sleepers (Rs.14.34 crores).

The Railway Board sanctioned, in March 1992, additional estimates of Rs.21.36 crores through two material modifications for easing of gradients in station yards and provision of full length vehicle loop line for Rs.7.39 crores and conversion of metre gauge line from Bangalore City to Yelahanka for Rs.13.97 crores. Two other material modifications for improvement to Ramnagaram station building for Rs.5 lakhs and provision for concrete aprons on platforms at Mysore for Rs.86.47 lakhs were approved by the Railway Board in February and August 1993 respectively.

The Railway also incurred additional expenditure of Rs.2.33 crores on facilities such as station buildings, tokenless signal working and other electrical works without approval of the Railway Board. The Railway Board directed the Railway to fix responsibility for unauthorised execution of the works; this had not been done as of August 1994.

The Railway revised the estimate in May 1993 to Rs.158.54 crores involving a further increase of Rs.81.60 crores over the first revised estimate. The further increase was attributed inter alia to (i) material modification (Rs.19.03 crores) (ii) provision of additional items not contemplated earlier (Rs.10.72 crores) (iii) increase in high value items of earthwork (Rs.3.97 crores) and (iv) cost escalation (Rs.40.49 crores). Some of these are commented in the subsequent paragraphs; cost escalation on the work which was taken up on certificate of urgency alone accounted for an increase of Rs.78.08 crores over the original estimate.

The Railway's Internal Finance, while reviewing the Second Revised Estimate, made inter alia the following observations:

i) Rs.7.28 crores had been provided in the Second Revised Estimate towards minor bridges without giving bridge wise details in the absence of which reasons for variation could not be analysed.

ii) The change of mode of transportation of rails and sleepers from rail to road had necessitated extra expenditure of Rs.5.14 crores.

iii) An expenditure of Rs.30 lakhs was identified separately for Detour 9 in the Second Revised Estimate. The expenditure was necessitated for construction of a temporary diversion line for meeting the target date for opening the line. Delay in construction of Detour 9 resulted in avoidable expenditure of Rs.30 lakhs on temporary diversion line. The expenditure on Detour 9 had not been quantified.

iv) Under Plant and Machinery additional provision of Rs.4.51 crores included in the Second Revised Estimate was not susceptible of verification in the absence of relevant details.

v) Provision of side drains (stone slab) for Rs.1 crore was a new item not included in the First Revised Estimate and material modification.

vi) Nearly 11 years after commencement of the project, additional provision of Rs.25.40 lakhs had been included in the Second Revised Estimate without giving details under `Preliminary Expenses' which was meant to account pre-commencement expenditure.

The Railway neither responded to the observations of the Internal Finance nor submitted the Second Revised Estimate to the Railway Board. The actual expenditure incurred on the work had exceeded even the Second Revised Estimate and stood at Rs.162.33 crores as accounted upto October 1993. Although the work was completed and the section was opened for traffic in September 1992, the completion estimate and report had also not been submitted to the Railway Board as of December 1994.

3. Avoidable/extra expenditure

The Railway executed certain works on the project which were not related to gauge conversion and were more in the nature of upgradation of traffic facilities not warranted by the traffic projections which burdened the project with extra/avoidable expenditure of Rs.16.11 crores.

(i) Easing of gradient: A study conducted by Railway in October 1979 indicated that the existing gradient of 1 in 70 would not act as a handicap to meet the anticipated traffic needs as projected in the second updated traffic survey report of 1976 for at least 11 years after conversion. The Traffic Survey conducted in 1982 (revised in 1985-86) projected anticipated traffic of 10.41 lakhs MT in 1985-86 and 11.91 lakhs MT in 1990-91 and 13.41 lakhs MT in 1995-96. The actual traffic moved during 1985-86 and 1989-90 was 4.59 lakhs MT and 3.13 lakhs MT respectively. The traffic density in the line also deteriorated from 4.03 lakhs MT in 1986-87 to 1.64 lakhs MT in 1993-94. Further, the steep gradient would not have been a handicap with the progressive electrification of the section. Despite this the Railway Board decided in July 1981 to ease the gradient to 1 in 100 in the load flowing direction from Bangalore City to Mysore. This entailed extra expenditure of Rs.8.72 crores against the anticipated cost of Rs.3 crores.

(ii) Provision of 70 vehicle loopline in stations yards and easing of gradient: The traffic survey report of 1982 indicated that with the easing of gradient to 1 in 100 in the load flowing direction the available loop capacity (35 to 55 vehicles) would be sufficient for the projected traffic of 10.41 lakh MTs. However, the Board approved in March 1992 further easing of the gradient to 1 in 400 and provision of 70 vehicles loop at all stations at a cost Rs.7.39 crores. Since the actual traffic was even far below the projected traffic, the expenditure of Rs.7.39 crores was premature.

The Railway Administration stated (January 1995) that given the strong possibility of growth in traffic to meet the needs of industrialisation and increasing population easing of gradient was justified. It further added that shorter loops would have resulted in under utilisation of locomotives and caused considerable operating difficulties like splitting and marshalling of trains. The contention of the Railway Administration was not tenable as the existing gradient was capable of meeting the anticipated traffic for at least 11 years after conversion and the electrification of the section was contemplated even in 1981 when the project commenced. The low traffic density in the section after conversion was far below the projections and could be handled with movement of 41 wagon rake in Mysore-Bangalore City direction and 35 wagon rake in Bangalore City-Mysore direction. The easing of gradient and provision of 70 vehicle loop at all stations at a cost of Rs.16.11 crores merely on consideration of smoother operation and possible growth of traffic was not only premature but also avoidable especially when the Railway Administration considered that the line was meant mainly for passenger traffic.

The extra facilities provided in the form of full vehicle looplines, easing of gradients, and additional facilities created, were far in excess of the requirement of the actual traffic moved after conversion of the line and expenditure of Rs.16.11 crores could have been avoided.

4. Contract management

(a) Award of contract on single tender basis during final block working: The Railway awarded a total number of 19 contracts for an aggregate cost of Rs.1.67 crores in respect of cut and connection on single tender basis during final block which commenced on 5 June 1992 for facilitating linking of BG track, cut and connection work etc. The award value of Rs.1.67 crores of these works was higher than their assessed value of Rs.0.98 crore. The Railway did not furnish the basis for arriving at the assessed value but stated that generally the rates accepted in other contracts during the period formed the basis. Prima facie the rates at which the works were awarded were excessive, more so since the contractors were already stated to be working in the area with required men and machinery.

The Railway Administration justified (January 1995) the higher rates accepted on single tender basis on the ground of urgency. The plea of urgency was not tenable as the project was allowed to linger for over 13 years prior to this and block period was also extended from one week originally envisaged to three months.

The Administration had decided to award the work on single tender basis inter alia on the consideration that contractors were required to supply all labour (skilled and unskilled) and mobilise other resources within a short span of time of one week (i.e., final block period). In spite of this, a total number of 1770 departmental labourers (skilled and unskilled) were deployed in the final block period which was extended to three months. An amount of Rs.1.22 crores was spent on departmental labour (1200 numbers) drawn from other units alone. The executing units did not maintain the prescribed diary of utilisation of departmental labour during the final block period, but accepted the adjustment memoranda amounting to Rs.1.22 crores towards payment made by the lending unit without verification or proper certification. Consequently the justification for incurring expenditure of Rs.1.22 crores on departmental labour in addition to contracts which were awarded at higher rates for the final block work, could not be established.

The Railway Administration stated (January 1995) that many phases of work were executed by departmental labour in a short span of time and with inadequate supervisory staff and detailed diary of work done could not be maintained and listed 9 items of work on which departmental labour was employed. Audit scrutiny of the contracts during final block working revealed that 7 out of these 9 items were included in the work to be done by the contractors.

(b) Extra expenditure due to variation in quantities: A test check of 30 out of a total of 74 earth work contracts awarded revealed that the quantities of earth work initially tendered underwent significant variations during execution. In 5 contracts alone, the increase in quantities of earth work during execution resulted in extra expenditure of Rs.77 lakhs on account of payment at higher rates for the additional quantities. Details of two major cases in which extra expenditure of Rs.48.18 lakhs was incurred are given in the following sub-paragraph.

The earth works in forming bank and cutting, construction of bridges with yard arrangements at Nayandahalli and Naganahalli (Reach F) were awarded to contractors in January 1991 and March 1990 for Rs.35.35 lakhs and Rs.23.23 lakhs respectively. During execution the quantities of earth work increased abnormally necessitating payment at higher rates as shown in the table below:

Sl. No.	Item	Contracted quantity in cum	Final quantity in cum	Percentage of excess	Original rate per 10 cum	Rate for excess quantity per 10 cum	Extra expenditure in lakhs of Rupees
(i) Nayandhalli (Contract No.W.496/SM/200 dt.29.1.1991)							
1.	Earth-work by own earth	45,000	136000	200	Rs.430	Upto 94000 cums	No change
						Additional 30000 cums (Rs.495)	1.95
						Additional 12000 cums (Rs.1400)	11.64
2.	Mechanical compaction	45,000	136000	200	Rs.50	Upto 94000 cums	No change
						Additional 30000 cums (Rs.55)	0.15
						Additional 12000 cums (Rs.60)	0.12
						Total	13.86
(ii) Naganahalli (Contract No.W.496/SM/93 dt.28.3.1990)							
1.	Earthwork in bank formation by own earth	39,625	126231	219	Rs.200	Upto 49530 cums	No change
						Additional 33000 cums (Rs.475)	9.08
						Additional 43701 cums (Rs.750)	24.03
2.	Mechanical Compaction	52,000	133233	156	Rs.40	Upto 65000 cums	No change
						Additional 33000 cums (Rs.50)	0.33
						Additional 35233 cums (Rs.65)	0.88
						Total	34.32

The additional quantities were necessitated due to

(i) non finalisation of plan regarding location of the catch siding at Nayandahalli;

(ii) failure in regrading of track at Mysore;

(iii) change in approved yard plan for accommodating 21 bogie trains at Mysore; and

(iv) change in the location of BG Goods Shed for Mysore and the diversion of Arsikere line.

The Railway Administration stated (December 1994) that the quantities finally executed were as per actual site conditions and rates were negotiated and accepted based on the rates then prevailing. The contention of Railway Administration was not tenable as the main reason for increase in quantities was the inclusion of catch siding and increased width of the bank etc. These factors were known to the Administration and could have been taken into account before inviting tenders.

(c) **Termination of works contracts:** 15 contracts were terminated on account of delay in execution and the works, thus terminated, were awarded to other contractors involving extra expenditure of Rs.1.32 crores. In none of these cases the extra expenditure could be recovered from the original contractors since the nature of scope of work was revised (11 cases); notices terminating the contracts were not issued (2 cases); and the nature and scope of work was revised and the notices terminating the contracts were also not issued (2 cases).

The Railway Administration stated (January 1995) that as soon as the final bills are passed the correct amount of extra expenditure would be advised to all Divisions/Construction Units for effecting recovery.

5. Material Management

(a) **Shortage of stores:** Heavy shortage of stores (Rs.8.59 crores) in stock with the custodian, ex. Office Superintendent/Stores/ Doubling/Bangalore Cantonment, who retired from service on 31st December 1991, was reported by the Deputy Financial Adviser and Chief Accounts Officer/CN/Bangalore Cantonment during December 1992. The total amount of shortage relating to the conversion project was worked out at Rs.6.20 crores. These shortages were reported as a result of the stock verification by Accounts during the period from 1985 to 1990. The following lapses were noticed in this connection:

i) omission to conduct periodical stock verification by the Department;

ii) failure to check the material-at-site account of subordinates including pairing of `Issue Notes'.with `Receipt Notes';

iii) improper/non-accounting of stores transactions in Day Book of Receipts (DBR), Day book of issues (DBI) etc; and

iv) failure to take prompt/remedial action as and when shortages were pointed out by Accounts stock verifiers.

The Railway Administration stated (December 1994) that the shortage was attributable partly to non-acceptance of challans by the Executive officers.

(b) Non-accounting of stores: 66457 MTs 52 Kg rails and 37071 Nos. of PSC sleepers were transported from Bangalore Cantonment Depot to various locations of Maddur - Mysore section. Necessary challans for the stores were prepared on Inspector of Works, Maddur. None of the challans was accepted by Inspector of Works and no account was maintained for these stores. There was no record of handing over these stores to contractors for use in the project. Adjustment Memos for Rs.3.34 crores were not accepted by Mysore unit for want of Daily Books/Receipt particulars from the Permanent Way Inspectors who received the materials. As a results stores valued at Rs.3.34 crores remained unaccounted.

28769 PSC sleepers and 1147 MTs of rails required for the project were received from Kengeri, Bidadi, Yelahanka station yards and transported to various specified destinations in Bangalore - Mysore section through private transport contractors. These stores were not accounted as no Daily Book of Receipts was available with the field units. The value of unaccounted stores worked out to Rs.16.25 lakhs. The payment for these stores was made without ensuring the correctness of quantity received.

(c) Non-settlement of departmental claims: Materials such as check rails, 52 Kg rails, steel cribs, special size wooden sleepers etc., required for the project were ordered for procurement during the years from 1981 to 1991 by the Railway Administration from various firms. Advance payments were made to these firms against Railway receipts.

In 39 cases, the materials ordered and purported to have been sent through Railway Goods Carriers were not received/short received/received in damaged condition. The Construction Organisation preferred claims on Commercial Department of the Bangalore Division for the value of the materials involving Rs.32.28 lakhs.

Some of the claims were time barred when preferred. Serious efforts were not made by the Railway Administration to trace out the missing materials. The claims had not been accepted by the Commercial Department, Bangalore Division as of August 1994.

The Railway Board stated (January 1995) that owing to limited availability of funds the work was stretched over a period of 13 years. The rapid industrialisation around Bangalore and introduction of faster trains required easing of gradient and provision of 70 vehicle loop. The contention of the Railway Board was not tenable as brought out in the preceding paragraphs. The Railway Board accepted that there was an administrative lapse in not recording the details of work done by departmental labour. The Railway Board also stated that an inquiry at SAG level would be ordered to examine the shortages and non-accounting of stores.

3.1.2 Western Railway: Construction of Broad Gauge line from Kapadvanj to Modasa including conversion of Narrow Gauge line from Nadiad to Kapadvanj

Construction of new BG line from Nadiad to Modasa including conversion of the existing narrow gauge line from Nadiad to Kapadvanj into Broad Gauge were approved for execution in 1978-79 at Rs.5.38 crores and Rs.4.05 crores respectively to meet the public demand. Both the works were started in April 1978 on the basis of an urgency certificate for Rs.60 lakhs and targeted for completion by 1982. The works remained frozen during 1980-81 and again during 1985-86. In March 1991 the Railway Board instructed the Railway Administration to restrict further work only to gauge conversion and sanctioned an amount of Rs.18.37 crores in September 1991. The work of conversion was completed and the line was opened for passenger traffic on 18 January 1993. Expenditure of Rs.19.08 crores was booked on the conversion work upto March 1994; expenditure booked on new construction was Rs.7.51 crores.

2. Financial results

The project was not considered financially viable from the beginning. The surveys conducted in 1975 and September 1981 had indicated negative (2.8 per cent) return on capital of Rs.9.43 crores and 2.2 per cent on capital of Rs.15.27 crores respectively. A Quick Reappraisal of the Traffic Survey Report submitted by the Railway Administration to the Railway Board in October 1988 projected an average annual return of 11.1 per cent exclusively from goods traffic against the revised estimated project cost of Rs.42.55 crores of both the works. The prima facie high rate of return was communicated to the Planning Commissioner without vetting by the Board's Finance. Although the construction work was frozen subsequently, the

Railway Administration did not separately compute the rate of return on the investment on gauge conversion from Nadiad to Kapadvanj.

After the conversion, the cummulative capital at charge on Nadiad - Kapadvanj line was 18.04 crores (March 1994). The rate of return was however negative at minus 1.5 per cent and there was a net loss of Rs.27.69 lakhs. The earnings were only from passenger traffic and the projected goods traffic did not at all materialise.

Only two passenger trains were operated daily on the converted section between Nadiad and Kapadvanj. The average monthly occupation was only 1770 passengers against the approximate monthly capacity of 38,400 passengers during January 1993 to March 1994. Thus the occupancy was less than 5 per cent of the capacity.

3. Unfruitful expenditure

The Railway sent detailed estimates of Rs.15.27 crores in September 1981 to the Railway Board. The Board did not approve the estimates but the urgency certificate for Rs.60 lakhs issued in April 1978 was revised to Rs.110 lakhs in April 1982 and further revised to Rs.380 lakhs in January 1984. Although no further expenditure was authorised by the Board, the Railway continued to incur expenditure on the works which aggregated to Rs.5.17 crores upto September 1989. The revised proposal for urgency certificate for Rs.8.17 crores sent by the Railway in August 1989 was not concurred in by the Railways Financial Advisor as the project was not considered economic. In October 1990, the Railway updated the project cost to Rs.65 crores as per the revised detailed estimate but the Board decided to restrict the scope of the project to gauge conversion and new construction work was to be taken up later (1991). In the mean time, expenditure of Rs.6.19 crores had already been incurred on the new construction work, (March 1991) and with further expenditure to meet the ongoing commitments, the expenditure booked on the work upto March 1994 was

Rs.7.51 crores. Because of non resumption of further work, the expenditure of Rs.7.51 crores incurred on new construction had remained unproductive as of October 1994.

4. Avoidable expenditure on repairs and maintenance of earthwork

The earthwork between Nadiad and Kapadvanj for widening the existing bank was done during 1978-79. Since the work had been discontinued, the Railway Administration intimated the Board in January 1991 that the earthwork which was 8 to 10 years old would require heavy repairs and maintenance involving an expenditure of Rs.35 lakhs. The actual expenditure incurred on this account could not be ascertained since the Railway Administration stated that the requisite records were not traceable.

5. Irregular payment of escalation charges

A contract for construction of a new bridge over Siri River was awarded in January 1991 to a contractor to be completed by April 1992 The contractor failed to complete the work within the stipulated period and asked for extension of time upto December 1992 on account of reasons such as increase in quantity of work and irregular availability of cement and steel in the market. The Railway Administration granted the extension to the contractor without levy of penalty but subject to the condition that no increase in rates on any account would be paid to the contractor. However, the contractor was paid escalation charges amounting to Rs.2 lakhs (Approx.) under price variation clause.

The Railway Board stated (January 1995) that the rate of return on capital was not important since the project was sanctioned on consideration of development of the area. As regards cost and time overrun the Railway Board explained that with a huge shelf of projects requiring nearly 4000 crores on hand and with the Planning Commission providing only about Rs.200 crores each year such prioritisation and temporary freezing of projects was unavoidable.

3.1.3 Northeast Frontier Railway: Construction of a new metre gauge line from Amguri to Tuli

The construction of a new MG line from Amguri to Tuli (14.65 Kms.) was sanctioned in January 1979 for Rs.5.83 crores. The work was primarily intended to serve the needs of Nagaland Pulp and Paper Company being set up by the Hindustan Paper Corporation and was taken up, despite the known negative rate of return, with a view to foster national integration and economic development of the region. The clearance of Ministry of Agriculture for location of the alignment through the Reserve Forest and for release of the forest land was obtained in July 1983.

The work was started in September 1982 and expenditure of Rs.1.87 crores was incurred upto March 1986 against the allotment of Rs.2.29 crores. Because of non-availability of land the work remained virtually suspended between April 1986 and September 1988. In September 1988 the Railway Board approved recommencement of the work for completion by March 1990. The line completed in March 1992 had not been opened for traffic as of January 1995 The expenditure booked upto March 1994 was Rs.14.83 crores. There was abnormal increase in expenditure on permanent way (74 per cent), building (90 per cent) earthwork (276 per cent) and bridges (153 per cent). The Railway had not prepared detailed/completion estimate analysing the reasons for cost overrun of Rs.8.98 crores (154 per cent)

A test check of records relating to some of the works revealed as under:

i) The Railway Administration awarded the work of earthwork in formation in bank and cutting to a contractor in March 1984 for Rs.30.12 lakhs for completion by 15 February 1985. The work was discontinued on 31 March 1986 owing to non-availability of land. This rendered the expenditure of Rs.5 lakhs infructuous on work executed till then which had not been brought to a safe stage. Subsequent award of the work on 7 November 1989 to another contractor involved extra expenditure of Rs.27.80 lakhs due to higher rates.

ii) The Railway Administration awarded the work of construction of sub-structure and super structure of three bridges to a contractor in April 1990 for Rs.58.74 lakhs. Trial bores conducted subsequently in August 1991 revealed that driving the precast piles would not be possible due to presence of rock in the case of two of the bridges. These bridges were therefore, required to be constructed with hume pipes. The change of design, which was necessitated because of failure to take trial bores in the first instance, rendered an expenditure of Rs.12.67 lakhs on procurement of 144 RCC piles infructuous and also 10 Nos. of steel girders costing Rs.7.20 lakhs surplus.

As the contractor expressed his inability to continue construction of the two bridges with hume pipes, the work was rearranged in September 1991 for Rs.65.98 lakhs on single tender basis. The rate of Rs.15,100 accepted for 1800 mm hume pipe per RM was exorbitant compared to the rates of Rs.7,000 per RM and Rs.9000 per RM available in Guwahati - Jogihopa project in 1990-91 and 1992-93 respectively and was accepted despite finance objection on the ground of urgency to open the line by December 1991. The work was completed in February 1992; but the line has not been opened to traffic even as of January 1995. The extra expenditure of Rs.14.03 lakhs on procurement of 230 RM of hume pipes at high rates, therefore, did not fulfill the intended purpose.

Amguri is a station on the mainline of Lumping - Tinsukia metre gauge section. The preliminary works for conversion of this line into Broad Gauge are under way. With the completion of gauge conversion work the new MG line from Amguri to Tuli would remain permanently unproductive unless infrastructure like transhipment yard, loco sheds etc., are created at Amguri to maintain the MG stock. In the mean time, the Nagaland Pulp and Paper Company which was intended to be served by the new Railway line had also closed down since 1992.

The Railway Administration stated (October 1994) that line could not be opened as the State Government delayed their decision regarding name of the terminal station in Nagaland.

The Railway Board stated (January 1995) that the local conditions warranted finalisation of contracts on single tender basis and premature closure of earthwork contracts was due to non-availability of land from the State Government. The Railway Board further stated that completion estimate would be prepared within two months and efforts to resolve the issue regarding the name of station would be made at the highest level. The investment of Rs.14.83 crores on construction of new Metre Gauge line, however, has remained unproductive since March 1992.

3.1.4 Eastern and Northern Railways: Unproductive investment for running long/heavy haul trains

In order to move additional anticipated traffic with minimal expenditure on capacity norms, the Railways envisaged in 1986, the development of 9000 tonnes train loads with 116 fully loaded BOX-N Wagons (against the existing maximum train loads of 4500 tonnes) with eventual upgradation to 18,000 tonnes in a phased manner with increments in multiples of 4500 tonnes. The running of heavy haul trains of 9000 tonnes was considered to be technically feasible on the Gaya - Mughalsarai - Ghaziabad section.

As an experimental measure, the Eastern Railway started heavy haul operations with 9000 tonnes from February 1986, but soon encountered numerous failures on account of "train partings, brake-block bindings, vacuum troubles, rail fractures, etc." It was also noticed that the running of heavy haul trains resulted in excessive drawal of power which created limitations in respect of number of trains in each sub-station.

In order to overcome these constraints, the Railway incurred expenditure of Rs.4.23 crores on construction of longer loops at four stations - Ismailpur, Baghoi Kusa, Sonnagar and Dehri-on-Sone to enable unhindered movement of other trains. The Railway also constructed two uplines - one each between Paheleza - Karwandiya and Dhanaichha - Karmanasa which would form part of a future third line between

Dehri-on-Sone - Mughalsarai at a cost of Rs.9.21 crores against three long loops at Paheleza, Khurmabad and Dhanaichha. Approval of the Railway Board to the construction of uplines was not obtained.

The Railway provided one loco in front and one in the middle, but since the improved braking system by twin pipes in BOX-N wagons and adequate number of high tensile couplers were not provided, the train failures persisted.

The project did not take off inspite of the heavy expenditure incurred by the Railway and it had to be finally abandoned after a brief period of heavy haul operation between May 1991 and March 1992.

On Northern Railway also, for receiving these heavy haul trains from Eastern Railway via Mughalsarai, expenditure of Rs.3.05 crores was incurred during June 1989 to October 1990 on extension of loop lines at four stations and provision of VHF communication facilities. But the benefits thereof did not materialise so far (August 1994) because of the discontinuance of heavy haul trains from Eastern Railway via Mughalsarai.

Thus, the expenditure of Rs.16.49 crores had remained unproductive.

The Railway Board stated (February 1995) that running of heavy haul trains, as a regular measure, requires heavy investment. Further action on running the heavy haul trains would be taken when it is possible to find adequate resources.

3.1.5 Northern Railway: Avoidable loss due to payment of higher cost of land

In 1987, Railway Board approached the Delhi Development Authority (DDA) for allotment of 64 hectares of land at Anand Vihar station in Delhi for setting up a passenger terminal. The DDA agreed (in the year 1989) to transfer 30.35 hectares of land at the rate of Rs.24 lakhs per acre with a rebate of 10 per cent as against the rate of Rs.13 lakhs per acre notified by Ministry of Urban Development for inter-government transactions. Later it was agreed that 40 hectares would be offered by DDA. Although reservations were expressed by the Associated Finance of Railway about the high cost of land, the Railway Administration neither approached the Ministry of Urban Development for intervention in the matter nor accepted the DDA's rates for more than 2 1/2 years.

The Railway Administration was informed in February 1991, by the DDA that the rate of Rs.24 lakhs per acre was also provisional and was liable to be hiked at any point of time.

However, by the time Railway Board finally agreed to sanction the purchase of land in November 1991, the DDA while offering only 30.35 hectares of land (in December 1991) withdrew the rebate of 10 per cent and also demanded ground rent at the rate of 2 1/2 per cent per annum. A demand for Rs.1799.15 lakhs on account of cost of land and Rs.44.98 lakhs on account of ground rent was raised by DDA. This amount was paid by the Railway in January 1992. This led to extra expenditure of Rs.8.25 crores computed with reference to the rates notified by the Ministry for inter government transactions besides annual extra payment of Rs.20.60 lakhs as ground rent on account of difference in rates. Out of the total area of 30.35 hectares paid for by Railway, possession of only 28.65 hectares was given by Delhi Development Authority.

The Railway Administration stated in October 1993 that Ministry of Urban Development clarified in November 1991 to Delhi Development Authority that it was not a Government Department and as such it should not be governed by the rates fixed for transfer of land from one Central Government Department to another. However, DDA had stated in February 1991 that the rates for transfer of land by DDA were fixed by Ministry of Urban Development. Therefore, it appears that there was scope for reduction of rates. The reply also did not clarify the reasons for the delay in making payment to DDA between June 1989 and November 1991 particularly when the Administration was aware in February 1991 that the rate was likely to be revised.

The matter was referred to the Railway Board in June 1993; reply has not been received (January 1995).

3.1.6 Western Railway: Construction of New Broad Gauge Railway Bridge across river Anas

The work design and construction of bridge across river Anas on Godhra - Ratlam section was awarded to a contractor A' in September 1987 at a cost of Rs.164.47 lakhs to be completed by June 1989. Saving of Rs.13.91 lakhs was anticipated on construction of bridge. The contractor was certified to be good enough for Rs.50 lakhs by his bankers and was on the approved list of contractors for carrying out civil works of Rs.1 crore.

The contractor completed work valued at Rs.45.74 lakhs upto June 1989 The slow progress of work was attributed to inadequate financial resources of the contractor. The contractor failed to complete the work despite grant of five extensions upto December 1991 and payment of an acceleration advance of Rs.5 lakhs which was not provided in the contract, and the Railway Administration finally terminated the contract in December 1991 at his risk and cost Work of the value of Rs.82.88 lakhs only had been completed by the contractor. According to the statement of counter claim filed by the Railway with the Arbitrator, the completion of the remaining work would involve extra expenditure of Rs.49.13 lakhs. An amount of Rs.12.44 lakhs was also due from the contractor towards advance of plant and machinery and interest on acceleration advance.

The remaining incomplete work was awarded to a contractor `B' in March 1993, after more than one year, for completion by April 1994. This contract was also terminated in October 1993 due to extremely slow progress. The work had not been re-arranged so far (July 1994).

Thus, the failure of the Railway Administration to assess properly the financial capacity of contractor `A' before awarding the contract and grant of five extensions, despite knowledge of the inadequate financial resources of the contractor, led to the termination of the contract in December 1991 after 50 per cent of the work was completed. The expenditure of Rs.82.88 lakhs incurred so far on account of the payments made to the contractor had remained unfruitful and the anticipated saving of Rs.13.91 lakhs remained unrealised. The Railway had not recovered its dues of Rs.12.44 lakhs from the contractor, and would have to incur substantial additional expenditure on completion of the remaining work due to increase in rates since December 1991.

The Railway Administration stated (December 1994) that there was some delay in finalising the risk and cost tender due to technical problems and maintained that the expenditure would not go waste as on completion of doubling the anticipated benefits would accrue. The Railway Administration did not explain why the contract of Rs.1.64 crores was awarded to a firm which was on the approved list of contractors for executing works of upto Rs.1 crore only.

3.1.7 South Central Railway: Delay in commissioning of a crossing station

In order to minimise detentions and to effect quick clearance of the trains in Hasanparti-Kazipet route, South Central Railway approved the provision of a `B' class crossing station with a loop line in down direction in March 1991 at a cost of Rs.185 lakhs. A net annual saving of Rs.40.93 lakhs was anticipated by way of reduced detentions. A detailed estimate of Rs..107 lakhs (designated as phase I of the work) was sanctioned in June 1991 which included splitting up the East and West lines into two block sections and providing tokenless block instruments at the crossing station as stage I and provision of crossover alongwith control panel as stage II. The work was to be completed by March 1992.

Though 90 per cent of the work was completed in December 1991 after incurring an expenditure of Rs.90.93 lakhs, the crossing station had not been commissioned due to the infringement of the gradient which required clearance of the Chief Commissioner of Railway Safety. The Railway Administration approached the Commissioner of Railway Safety in September 1991 for condonation to the infringing gradient which had not been accorded as of January 1995. Delay in commissioning of the crossing station for want of clearance of the Commissioner of Railway Safety resulted in idle investment of Rs.90.93 lakhs on the work so far completed. The purpose of reducing detention to traffic on the route was also not achieved. Phase II of the work was dropped in November 1994.

The Railway Board stated (January 1995) that the crossing station could not be opened for want of sanction by the Chief Commissioner of Railway safety who had stipulated that Railway should either provide two catch sidings at each end of the crossing station due to steep gradient on both sides failing which the line capacity could be increased by automatic signaling. It was also stated that decision on the two alternatives would be taken within three months. The investment of Rs.90.93 lakhs remained unfruitful since December 1991. Even after installation of automatic signaling full benefit of crossing station would not be achieved, as Phase II of the work involving provision of a loopline etc. had been dropped.

3.2 DEPOSIT WORKS

South Eastern Railway: Undue benefit to a private firm

The construction of a private siding on deposit account was taken up in 1984-85 at an estimated cost of Rs.6.37 crores. As per the sanctioned estimate the Railway was to execute work of the value of Rs.2.48 crores and the party was to execute the balance work of Rs.3.89 crores. The permanent way materials were to be supplied by the party at its own cost.

The party deposited an amount of Rs.2.25 crores with the Railway against the estimated cost of work of Rs.2.48 crores to be executed by the Railway. At the request of the party the Railway Administration also supplied permanent way materials valued at Rs.1.49 crores including rails valued at Rs.28.51 lakhs. The work was completed and the siding was handed over to the party in August 1986 for use. The completion report of the work had not been prepared as of August 1994.

The Railway did not keep proper account of the expenditure incurred on the work executed as well as the materials supplied. Expenditure of Rs.2.39 crores was shown against the work upto August 1993. The party claimed (March 1991) to have incurred expenditure of Rs.0.55 crore on behalf of the Railway; this amount had not been verified by the Railway as of August 1994. Even after giving credit for this amount, an amount of Rs.1.08 crores was due from the party against which the Railway had been asking for payment of Rs.0.50 crore only pending finalisation of accounts. This too had not been paid by the party as of August 1994 and the party continued to be benefited because of lapses of the Railway in maintaining proper accounts and taking effective steps for recovery of the outstanding amount.

The Railway Board stated (January 1995) that the balance amount due from the party would be realised positively by March 1995 after completion of accounts.

3.3 OTHER WORKS

3.3.1 Northeast Frontier Railway: Unproductive expenditure on construction of bridges

The Ministry of Railways (Railway Board) sanctioned Gauge Conversion Works between Guwahati and Lumding on Northeast Frontier Railway in April 1992 for Rs.102.06 crores. Although the Board observed in April 1992 that the existing bridges were adequate for taking Broad Gauge traffic after necessary strengthening/modification, the Construction Organisation of the Railway awarded the work of construction of sub structure of five bridges in February 1993 for Rs.6.62 crores after inviting limited tenders. As its approval was not obtained, the Board directed the Railway in May 1993 to stop the works immediately. Accordingly, the contracts for construction of bridges were terminated in July 1993 without any financial liability on either side. Consequently the expenditure of Rs.1.02 crores incurred on the construction of five bridges was rendered unproductive.

The Railway Administration stated in April 1994 that it was all along under the impression that the bridges had been only temporarily certified as safe for running Broad Gauge trains and in its opinion the bridges would have to be strengthened sooner or later. The reply is not acceptable in view of the observation of the Board that the construction of bridges was not necessary. Commencement of construction of sub-structure of five bridges, despite the advice of the Board, had thus resulted in unproductive expenditure of Rs.1.02 crores.

The Railway Board stated (January 1995) that works already executed would be used for continuing further works and constructing new bridges.

3.3.2 North Eastern Railway: Unauthorised occupation of Railway land by contractor

The Railway Administration entered into an agreement with a contractor for operation of a cycle stand measuring 17934.10 square feet at Gorakhpur Railway Station in August 1989. The monthly licence fee for the cycle stand was Rs.9305. The agreement was valid upto 31 August 1991.

In terms of the agreement with the contractor, any encroachment by the licencee on any Railway land other than the land allotted for the cycle stand, would constitute a breach of the terms of licence agreement entitling the Railway Administration to terminate the licence forthwith and forfeit the security deposit of the contractor. In that event, the contractor was also liable to pay damages to Railway Administration at the rate of 20 per cent per month of the market value of the land encroached upon from the date of encroachment to the date of eviction. In May 1990, the Railway Administration noticed that the contractor had unauthorisedly occupied Railway land measuring 6619 square feet adjacent to the land allotted to him for the cycle stand for use as a scooter stand. However, the Railway Administration neither terminated the contract nor took any action to recover the damages from the contractor. On the other hand, the contract was automatically extended on its expiry in August 1991. No amount was recovered from the contractor towards licence fee for the land unauthorisedly occupied by the contractor.

The Railway Board stated (January 1995) that it had been decided to go for arbitration for settlement of Railway's claim. A fresh contract was awarded on 13 May 1994 and the security deposit of Rs.22332 of the defaulting contractor was forfeited. The Railway Board did not clarify why prompt action was not taken when unauthorised occupation of railway land by the contractor came to notice and why the contract was instead automatically extended.

3.3.3 Metro Railway: Loss due to extending undue favour to a contractor

Metro Railway Administration awarded the work of construction of 521 diaphragm walls in section 9 (7,800 Km. to 8,600 Km.) to M/s. National Buildings Construction Corporation Limited(NBCC) in June 1981 at a cost of Rs.255.36 lakhs for completion by 24 December 1983. An interest bearing advance of Rs.25.54 lakhs was also paid to the NBCC in September 1981. The NBCC completed only 135 wall panels within the stipulated time of completion but extensions of date of completion were granted without penalty. In November 1985 the NBCC submitted a revised programme for completion of the balance work by December 1986 but again failed to complete the work.

The Railway Administration, instead of terminating the contract, withdrew three portions of the work and awarded the same to Contractors B' and `C' in December 1986 and September 1988 at the risk and cost of the NBCC. NBCC completed the work after three withdrawals in January 1989 The Contractors `B' and C' completed the works in May 1989 and January 1990 The extra cost incurred in getting the work executed by contractors B and `C' was assessed at Rs.44.48 lakhs. Besides, out of total advance of Rs.25.54 lakhs, Rs.8.18 lakhs plus interest thereon at the rate of 15 per cent was due from NBCC. The amount due to the firm against the final bill was Rs.5 lakhs. No formal legal action has been taken by Metro Railway to recover the amount, and the matter was still pending with the Railway Board

The Railway Board stated (January 1995) that final decision on the firm's claim of Rs.365.14 lakhs and counter claim of Metro Railway for Rs.45 lakhs would be taken by March 1995.

3.3.4 Northeast Frontier Railway: Avoidable extra expenditure due to incorrect assessment of earthwork

The Railway Administration entered into a contract in January 1990 for certain items of work in connection with construction of a new BG line from Jogighopa to Guwahati for Rs.2.19 crores. The contract, provided inter alia for 2.74 lakhs cum of earth work with earth from Railway land at the rate of Rs.131 per 10 cum and 0.61 lakh cum, of earth work with earth from contractor's sources at the rate of Rs.385 per 10 cum.

During execution, only 1.70 lakh cum

During execution, only 1.70 lakh cum of earth work was executed with earth obtained from Railway land against the estimated quantity of 2.74 lakhs while 2.58 lakhs cum of earth work was executed with contractor's earth against the original quantity of 0.61 lakh cum.

The Railway Administration after negotiation with the contractor in November 1991, accepted the rate of Rs.550 per 10 cum - an increase of Rs.165 per 10 cum, for additional quantity of earth work done with contractor's earth, in excess of 25 per cent of the original quantity of the contract. The additional quantity of earth work done with contractor's own earth after excluding the quantity attributable to additional width of formation (a post tender development) was 1.78 lakh cum. This entailed extra expenditure of Rs.29.29 lakhs computed with reference to the original tendered rate.

The Railway Administration stated (February 1994) that substantial decrease in the quantity of the earth from Railway land and increase in earth work done with contractor's own earth was due to adoption of PSC girders instead of steel girders as originally provided in the contract and lack of knowledge about the possible height of the PSC girders, delayed finalisation of designs as well as the fact that a proper assessment of the availability of earth in marshy land along the alignment was not possible at the time of finalisation of the contract in January 1990. The reasons advanced for incorrect estimation of earth work by the Railway Administration were not tenable as these should have been anticipated and catered to before inviting tenders. The enhanced rate of Rs.550 per 10 cum for the additional quantity which represented an increase of 42.86 per cent over the original rate in a period of less than two years was also prima facie excessive.

The Railway Board stated (January 1995) that compared to rate of Rs.475 per 10 cum accepted in neighbouring area for similar work, extra expenditure worked out to Rs.13.35 lakhs for 1.78 lakh cums of earthwork. However, had the requirement of earthwork been properly assessed before inviting tenders, the necessity of payment of higher rate beyond the tendered rate of Rs.385 per 10 cum could have been avoided.

3.3.5 Southern Railway: Infructuous expenditure due to injudicious selection of site

The construction of a building to accommodate computerised reservation centre on the eastern side of Mambalam station in the Madras Beach - Tambaram section was sanctioned in January 1988 at a cost of Rs.10.40 lakhs. An expenditure of Rs.17.69 lakhs was incurred on construction upto May 1992. A further expenditure of Rs.4.19 lakhs was incurred on construction of second floor on the same building upto June 1993. While the construction of the second floor was in progress, the Railway Administration decided in January 1993 to demolish the building (dismantling cost Rs.1 lakh) to provide space for the BG line proposed for construction on the eastern side of Mambalam station as part of the gauge conversion project from Madras Beach to Tambaram. Accordingly the building was demolished and a new building was constructed on the Western side for the reservation centre.

The survey report of 1981 (for an additional metre gauge line) and the preliminary works programme 1985-86 (for broad gauge line) had indicated that future projects in the Madras Beach - Tambaram section should come up on the eastern side only. Had the site for computerised reservation centre been selected taking into account the earlier surveys conducted, the infructuous expenditure of Rs.22.88 lakhs could have been avoided.

The matter was taken up with Railway Administration in July 1994; reply has not been received (January 1995).

3.3.6 North Eastern Railway: Infructuous expenditure due to inadequate location survey

Based on the maximum water discharge of 27,600 cusecs assessed in Final Location Survey Report (1978) it was estimated that a girder bridge with a span 5 X 60' over the Bhakra river could meet the requirement of carrying the traffic on new line being constructed between Rampur and New Haldwani. In 1984 the maximum water discharge was reassessed at 40,322 cusecs and on this basis it was decided to construct a 9 X 20 metre girder bridge, instead of 5 X 60' bridge as decided earlier.

Nine piers with a span of 20 metres each were ready at cost of Rs.22.05 lakhs by March 1989. A fresh study of the highest flood level behaviour of the river and the position of adjoining bridges on the same river and in the same vicinity, made at the time of girdering of the bridge in April 1992, revealed the highest discharge of water during the last 42 years was 20,000 cusecs only. As a result 4 piers of the bridge were considered unnecessary and 3 of them were closed with earth work. Consequently, expenditure of Rs.11.83 lakhs proved infructuous.

The Railway Board accepted (January 1995) the above position.

3.3.7 Southern Railway: Unfruitful expenditure on provision of gate lodges and lifting barriers

Railway Administration constructed 38 gate lodges at 38 level crossings and provided lifting barriers on new Broad Gauge Line from Alleppey to Kayankulam. As it was considered that it would not be practicable for the Station Masters to telephonically advise all the gate keepers of stations adjacent to level crossings on a section about the passage of a train between 2 stations (since there were 15 level crossings on 2 sections) the Railway Administration decided in February 1992 to instal Private Number Exchange (PN) for only 12 manned level crossings, identified as important and to provide warning bell system at the remaining level crossings. The Commissioner for Railway Safety did not agree to the warning bell system on safety considerations. The Railway Administration, therefore, decided in April 1992 to man only 15 level crossings leaving the 23 level crossings unmanned and to regulate train passage at the unmanned level crossings by imposing suitable speed restrictions. The lifting barriers provided at the unmanned level crossings were removed subsequently at the instance of the Commissioner of Railway Safety to avoid misguidance to road users.

The new line was opened for traffic on 20 November 1992 with 23 level crossings unmanned and the same position continues (June 1994). The expenditure of

Rs.22.39 lakhs on the construction of gate lodges and provision of lifting barriers at these unmanned level crossings had, thus, remained unfruitful.

The Railway Administration stated in January 1995 that 9 unmanned level crossings were being manned in 1994-95 and the remaining unmanned crossings would also be progressively manned in coming years.

3.4 LAND AND ESTATE

3.4.1 Eastern Railway: Loss due to failure to prove title to land

Eastern Railway entered into an agreement with Indian Railway Construction Company (IRCON) in August 1988 for setting up a mechanised quarry in the Railway land at Barharwa and for supply of ballast to the Railway at an agreed price. The Administration also paid Rs.1 crore as advance to the firm on the date of signing the agreement, as per provision. The advance was recoverable at the rate of Rs.20 per cubic metre from the bills of the firm for supply of ballast and interest was payable by the firm at the rate of 10 per cent per annum on the diminishing balance of the advance.

The work which was started on 26 December 1989 came to a halt on 7 January 1990 because the title to the land was disputed and the Railway could not prove its title to land before the Land Revenue Authorities of Bihar Government for want of a Land Acquisition Plan bearing the signature of the competent authority. The firm abandoned the work and served notice on the Railway for foreclosure of the contract in July 1990.

Thus due to failure of Railway Administration to prove its title to land an amount of Rs.1 crore remained blocked for more than six years with the contractor.

3.4.2 Western Railway: Loss due to non-revision of licence fee

Railway land ad-measuring 36083.14 square yards under the jurisdiction of Bombay Division was licensed to the Ministry of Defence during 1941 to 1944. Out of this, 10,651.08 square yards of Railway land was released to Railways by 1980. Though the Railway requested the Ministry of Defence to release the remaining 25,432.06 square yards of Railway land which was being used by the Naval Headquarters, Western Command for transport pool, the Ministry of Defence retained the land on the plea that it was vital for providing essential services for the defence of Bombay and its harbour.

The licence fee for the land was being recovered by the Railway based on the value of the land at Rs.840 per square yard as fixed in 1973. Although the revision of licence fee was due in 1978, 1983, 1986, 1989 and 1992 according to the provisions of the departmental code and instructions, the Railway Administration did not revise the licence fee even once since 1973.

A Standing Committee of three Heads of Departments set up by the Administration for fixing rates of licence fee made certain recommendations (January 1993) about revision of rates of land for the period from April 1986 onwards. The amount short recovered on account of licence fee, in terms of the Committee's recommendations worked out to Rs.100.64 lakhs at the rates due from 1986 and 1989 on percentage basis. The amount short recovered on account of revision due in 1992 would be extra. Action had not been taken to implement the recommendations of the Committee and to recover the amount short-recovered from the Ministry of Defence.

The Railway Board stated (January 1995) that necessary revision of licence fee from 1983, 1986, 1989 and 1992 would be done in consultation with Revenue Authority and bills would be raised by February 1995. The matter would also be followed at a higher level to realise the arrear dues.

3.4.3 South Eastern Railway: Unproductive expenditure on creation of assets

South Eastern Railway Administration constructed 118 units of staff quarters at Karampada in 1983/1984 at a cost of Rs.44.78 lakhs for the staff required for operation and maintenance of the Meghahatuburu siding. The quarters were not taken over by open line authority and have been lying vacant (August 1994). The expenditure of Rs.44.78 lakhs on the creation of assets had thus remained unproductive.

An amount of Rs.8.44 lakhs was also spent on the construction of a Railway Protection Force (RPF) barrack and a post in Bhilai Marshalling Yard in 1983. These facilities were taken over by open line only in October 1994.

The Railway Board stated (January 1995) that all out efforts would be made to hand over 118 units of staff quarters to Open Line Organisation within the shortest possible time.

3.4.4 Central Railway: Loss due to non-recovery of licence fee of railway land

Central Railway leased 930 square metres of railway land (Plot A) in December 1973 to the Indian Oil Corporation (IOC). In February 1979, the Administration noticed that additional 1106 square metres of railway land (Plot B) was occupied by an IOC dealer. The entire extant was covered by a boundary wall. Notwithstanding this, the Railway did not recover licence fee for the additional area under unauthorised occupation. The licence fee recoverable from February 1979 till the date of vacation of the Plot B in December 1993 was assessed at Rs.31.15 lakhs. The Railway Administration also did not enhance the rate of licence fee of the plot from 6 to 20 per cent of the market value from April 1986 as directed by the Railway Board. This resulted in a further short recovery of licence fee amounting to Rs.24.02 lakhs in respect of Plot A alone.

The Railway Board stated (January 1995) that the Railway Administration had been instructed to conduct a quick investigation to ascertain the actual use of the two plots during 1973-1993. In case, it was established that both the plots were in use by IOC, the recovery of licence fee should be taken at a high level.

3.4.5 Western Railway: Extra expenditure on account of handing over uncleared site to the contractor

Western Railway Administration awarded a contract in December 1989 for earth work in connection with doubling of the line between Pirumrod and Bercha stations at a cost of Rs.42.51 lakhs to be completed by 5 September 1990. As the site was not free from hindrances due to existence of telegraph poles and signal wires, the contractor could not even start the work within the stipulated date of completion of the work. The work was started in December 1990 but was stopped in April 1991 after completion of 46 per cent of the work as the telegraph poles had not been fully removed. Railway Administration was able to clear the site fully in August 1991 and extended the date of completion of the work without penalty upto March 1992.

Due to delay because of non-availability of site, the contractor demanded increase in rates; however, the Administration did not agree to his request and terminated the contract in September 1992 at the risk and cost of the contractor. The Administration neither examined the reasonableness of the increased rates demanded by the contractor nor held negotiations with him with a view to obtaining reduction therein. An amount of Rs.18.90 lakhs was paid to the contractor for the work done by him.

In February 1993 the Administration awarded the remaining portion of the work to another contractor for Rs.58.65 lakhs for completion by 22 August 1993, later extended to 31 May 1994. The performance of the second contractor was also very poor as he could execute only about 45 per cent of the work awarded to him upto March 1994. The Railway Administration terminated the contract on 25 May 1994 An amount of Rs.26.90 lakhs was paid to the contractor. Compared with the rates of the first contractor this involved extra expenditure of Rs.16.46 lakhs. The Railway Administration revived the contract with the second contractor in November 1994.

Thus, failure of the Railway Administration to provide clear site to the first contractor, coupled with its failure to negotiate the increased rates demanded by him led to avoidable extra expenditure of Rs.16.46 lakhs on the work so far completed.

Railway Administration will have to incur extra expenditure of another Rs.19.29 lakhs at least for completion of the remaining work going by the rates quoted by the second contractor.

The Railway Administration stated (September 1994) that had it awarded the contract after shifting of the post and telegraph communication channels it would have to pay higher rates. The Railway Administration did not, however, explain why action was not taken well in time for shifting of telegraph poles and signal wires before the award of work to the contractor.

3.4.6 South Central Railway: Poor land management and non-recovery of licence fee

In 1959-60, Railway Administration handed over 819.29 acres of surplus Railway land along the Kakinada-Kotipalli (KK) line abandoned in 1942 to the Government of Andhra Pradesh for use. The State Government leased 676.15 acres of cultivable land to cultivators under "The Grow More Food Scheme", and allotted 24.60 acres to the State Government Employees Co-operative Housing Society in 1965 at a very low rate of Rs.1/- per square yard; the remaining land measuring 118.54 acres which was not fit for cultivation remained unused under the control of the State Government.

The State Government revenue officials remitted lease amount collected by them for the leased land (676.15 acres) to Railways upto 1970 but from 1970 onwards the State Government neither remitted the lease amount to the Railway nor returned the land. The lease amount due from State Government on this account was Rs.16.90 lakhs for the period from 1971 to 1992.

Meanwhile, encroachments and unauthorised permanent structures had been built on large scale on the Railway land near the towns of Kakinada and Ramachandrapuram, some of which had apparently been regularised by the State Government. Poor land management had thus resulted in loss of revenue of Rs.16.90 lakhs upto 1992 apart from likely loss of Railway land measuring 819.29 acres.

The Railway Board stated (January 1995) that after assessing the requirement of land for restoration of Kakinada-Kotipalli railway line the State Government would be approached for releasing the same and the balance land would be processed for relinquishment to the State Government. As regards the realisation of arrears of licence fee, the Railway Board stated that the matter was being pursued with the State Government at the level of the General Manager.

3.4.7 Northeast Frontier Railway: Avoidable and unfruitful expenditure on provision of control office and trunk line

The work for provision of control office at North Lakhimpur and provision of trunk line between Rangapara North and North Lakhimpur was completed at a cost of Rs.24.85 lakhs shifting one existing Control Board from Rangapara North and the Control Office was opened in February 1990 at North Lakhimpur. Almost within two years of its opening, the Railway decided to shift the Control Office from North Lakhimpur back to Rangapara North for better co-ordination and improvement in train operation. Accordingly, North Lakhimpur Control Board was shifted back to Rangapara North in March 1992. In November 1992 the Railway decided that since goods traffic between Viswanath Charali and Murkongselek was less than one train a week, the entire traffic on the sub-division should be controlled with only one Board at Rangapara North. The decision to shift the Control Board from Rangapara North to North Lakhimpur, therefore, lacked justification and the expenditure of Rs.21.16 lakhs on construction of the Control Board and other related works at North Lakhimpur was avoidable.

The Railway Administration stated as follows in September 1993:-

i) The anticipated increase in traffic at Harmuty on Rangapara-North-Lakhimpur section did not materialise, and part of the traffic got diverted to Bhalukipong; and

ii) The wires on the existing overhead alignment were being used extensively even now for administrative/operational work.

The reply is not acceptable because

i) the justification for provision of control office at North Lakhimpur was not backed by any detailed survey regarding growth of traffic;

ii) the construction of Balipara-Bhalukpong section was taken up in 1980-81 and the possibility of diversion of traffic to that section should have been anticipated; and

iii) the additional pair of wires were meant to be used as a control office to control office hotline/trunk line and not for any other administrative/ operational work.

3.4.8 Western Railway: Infructuous expenditure on earth work

In October 1991, Western Railway on the advice of the Railway Board decided to create facilities for pre-assembling pre-stressed concrete (PSC) sleepers for Sawai Madhopur-Jaipur-Phulera Section in connection with gauge conversion work sanctioned in May 1990. Accordingly, in January 1992, the Railway acquired land at a cost of Rs.1.54 lakhs to set up a Plasser Quick Relaying System (PQRS) Depot at Isarda Station for collection of permanent way material and pre-assembling of PSC sleepers.

On 5 March 1992, the Railway Board confirmed that PSC sleepers with new 52 Kg. rails would be used on this project. The decision was, however, reversed four days later when the Railway Board directed that Cast Steel Trough (CST-9) sleepers may be provided on this section. The work of developing PQRS Depot was abandoned thereafter. An expenditure of Rs.11.22 lakhs on earth work for the depot had already been incurred upto March 1992.

The gauge conversion work was completed and the section was handed over to traffic from January 1993. The land acquired became surplus and the amount of Rs.11.22 lakhs spent on earthwork became infructuous. Railway Administration has no proposal for use of the land in the near future.

The Railway Board stated (January 1995) that the earthwork was done at a station in 1992 where presently two lines were provided and the earthwork would become useful when the third line was provided.

CHAPTER IV

STORES AND ASSETS MANAGEMENT

4.1. INJUDICIOUS IMPORTS AND POOR MATERIAL MANAGEMENT

4.1.1 Unproductive expenditure on import of Dry Type Booster Transformers

The Railway Board placed an order for manufacture and supply of 322 Nos. of 150 KVA and 437 Nos. of 280 KVA dry Type Booster Transformers, valuing Rs.11.86 crores (FOB) on a foreign firm in September 1988 to be completed by February 1990. As against the stipulated date of supply, all the 759 Booster Transformers were despatched during the extended delivery period from February to November 1990 and expenditure of Rs.23.69 crores was incurred.

Dry type booster transformers were being purchased for the first time on Indian Railways. While approving the purchase in August 1988 the Board had desired that tests already conducted on the prototype should be repeated before giving clearance for bulk manufacture. The Board was also aware that under actual operating conditions there might be certain parameters which might indicate inadequacy in design or manufacture of equipments. The Board, therefore, contemplated that since the delivery schedule spanned 16 months, as a safeguard, service under actual operating conditions of adequate number of booster transformers would be necessary for a couple of months before further supplies were received and commissioned. The Board, however, did not issue any instructions in the matter to Research, Designs and Standards Organisation (RDSO) who gave clearance for bulk manufacture in June and October 1989 only on the basis of certain tests conducted abroad.

Of the 692 booster transformers commissioned till 29th July 1994, 185 number of transformers failed after commissioning and 423 had not been connected for fear of failure. Despite additional expenditure of Rs.17.90 lakhs on modifications, the transformers did not function satisfactorily. In March 1993 instructions were issued to all the Railways for rejection of the booster transformers and in March 1994 the Railway Electrification Administration decided not to carry out further modifications.

The following points arise in this case:

i) The Board's intention that the supplies should be received over a period of 16 months which would give adequate time for testing the performance under actual operating conditions was not stipulated in the purchase order by prescribing a staggered time schedule. The supplies were also despatched over a period of 10 months.

ii) The Board's failure to communicate the instructions for conducting performance trials for a few months led to purchase of transformers without adequate trials.

iii) Though the Railways were aware (1991) that the booster transformers had failed as these were not manufactured as per contractual specification, yet instructions were issued to Zonal Railways for rejecting the transformers only in March 1993 after the warranty period had expired in November 1992.

Consequently expenditure of Rs.17.75 crores incurred on purchase of 608 Booster Transforamers has been rendered unproductive.

The Railway Board stated (November 1994) that 101 booster transformers were in service after modification and action was being taken to put in service 185 booster transformers that had failed, along with those booster transformers which were disconnected for fear of failure and the bank guarantee for Rs.1.53 crores had been encashed. However, as the proposal of the firm submitted in March 1993 to modify eight booster transformers was still under consideration (November 1994) of RDSO and as the performance of these eight modified booster transformers would require to be watched for a year before modifications are carried out on the remaining transformers, the possibility of commissioning of the booster transformers in the near future appears remote.

4.1.2 Avoidable expenditure on purchase of Roller Bearing Axle Boxes

The Railway Board placed an order for supply of 1600 Nos. 14 tonne Roller Bearing Axle Boxes (RBABs) at the rate of Rs.6,990 per unit for fitment in 200 Nos. 14 tonne Metre Gauge (MG) stock on a firm on 20th December 1991 to be completed by 30th April 1992. As the firm failed to complete the supply within the scheduled delivery period, the Board granted extension in delivery period up to July 1992. The firm had supplied 800 RBABs till then.

Consequent upon the announcement of the unigauge policy (December 1991) and decision to freeze the M.G rolling stock procurement programme, the Board curtailed its wagon manufacturing programme to 133 wagons but did not review the requirement of RBABs which as per the revised requirement worked out to 1064 against 1600 ordered. On the other hand, the firm was granted further extension for the balance quantity of 800 RBABs up to November 1992. The entire supplies were received between May - October 1992. Had the contract been suitably curtailed when the firm had failed to effect supplies within the original date, the expenditure of Rs.52.22 lakhs incurred in procurement of 536 Roller Bearing Axle Boxes could have been avoided.

The Railway Board admitted (January 1995) that the requirement of bearings ought to have been reviewed at the time of grant of extension in delivery period and stated that the procedure had since been modified to ensure that extensions were granted only if the material was required. The Railway Board, however, contended that these 536 RBABs would be used for retrofitment on M.G. stock. However, proposal for retrofitment had not so far been approved by the Railway Board. Besides the newly built 12 tonne axle load M.G. stock to which the RBABs are to be fitted would be received in the workshop for periodical overhaul only after four years from the date they are put on line and only then can retrofitting be undertaken. According to an assessment made by the Research, Designs and Standards Organisation, retrofitment would entail an additional expenditure of Rs.58.96 lakhs for 67 wagons, besides requiring bridge improvement works estimated to cost Rs.10 crores.

4.1.3 Injudicious leasing of aircraft

In March 1993, the Ministry of Railways considered it necessary to acquire an aircraft through Indian Railway Construction Company Limited (IRCON) for use by the Ministry in exigencies such as accidents, natural calamities etc.

In June 1993 the Financial Commissioner while expressing reservations about the proposal desired that a detailed justification for acquisition should be prepared showing expected level of utilisation. This was, however, not done and in September 1993, Ministry of Railways decided to provide interest free advance for purchase of aircraft to IRCON which in return would arrange necessary services for its operation. A token supplementary grant of Rs.0.50 lakh was obtained in August 1993 for payment of interest free advance to IRCON for procurement of aircraft with a view to ensuring ready availability of an aircraft in exigencies such as accidents, natural calamities etc. to meet the mutual requirements of Railways and IRCON.

The Railway Board released Rs.15 crores to IRCON in February 1994 after re-appropriating an additional amount of Rs.14.995 crores from the provisions made in the budget estimates for 1993-94 for new lines, gauge conversion, railway electrification, rolling stock etc. According to the Memorandum of Understanding signed between the Board and IRCON on 15 February 1994, the Ministry was to pay the following to IRCON:

i) Annual fixed charges of Rs.241.50 lakhs; this included Rs.150 lakhs which were to be adjusted towards repayment of advance and

ii) Variable operating cost at Rs.12,480 per flying hour which included cost of fuel and maintenance.

During the period the Ministry of Railways did not require the aircraft and in case the same could be chartered to a third party, the charges recovered from third party in excess of Rs.12,480 per flying hour were to be refunded by IRCON to Ministry of Railways.

The aircraft which was received at Delhi Airport on 11th May 1994 was hired for Railways use to visit 51 destinations aggregating to 121.75 hours, on an average 24.35 hours per month upto 2 October 1994. These included visits to Bangalore (15 occasions), Mangalore/Harihar (4 occasions), Tirupati (1 occasion), Nagpur (5 occasions) and Bombay (9 occasions).

Following points emerge in this connection:

i) The Railway Board did not prepare detailed justification for the aircraft showing expected level of its utilisation as desired by the Financial Commissioner. The Board had on an average chartered aircraft on 14 occasions during the three years 1990-91, 1991-92 and 1992-93 and incurred average annual expenditure of Rs.51 lakhs only on chartering of aircrafts and commercial flights. In July 1993, the Railways had indicated a tentative demand of about 200 hours while discussing proposals for hiring of an aircraft.

ii) According to the Explanatory Note on Supplementary Demands for Grants presented in August 1993, the aircraft was required in order to ensure ready availability in exigencies such as accidents, natural calamities, etc. However, 49 out of 51 journeys made upto 2nd October 1994 were to destinations which were connected by regular IAC flights. These journeys included visits to Bangalore (15 occasions), Mangalore/Harihar (4 occasions), Tirupati (1 occasion), Nagpur (5 occasions) and Bombay (9 occasions). None of the visits was for the purpose for which the aircraft was procured.

iii) The payment of interest free advance of Rs.15 crores to IRCON involved financial implications of Rs.14.62 crores to the Railways over the period of 10 years. The Railways did not get the benefit of discounted operating tariff.

iv) The annual fixed charges of Rs.241.50 lakhs to be paid by the Railways to IRCON were determined on a capital cost of Rs.15 crores and depreciation at the rate of 11.31 per cent per annum. However, the capital cost actually paid by IRCON was Rs.13.87 crores excluding the initial insurance (Rs.16.65 lakhs) and free spares valued at US $ 75,000 (Rs.23.62 lakhs) received by IRCON and depreciation should have been charged at the rate of 8.33 per cent with reference to the 12 year life span of the aircraft. The adoption of inflated capital cost and depreciation involved excess payment of Rs.54.12 lakhs per annum or Rs.6.49 crores over 12 years by the Railways to IRCON.

The annual fixed charges also included insurance charges at the rate of 2 per cent per annum or Rs.30 lakhs per annum on the capital cost of Rs. 15 crores. This involved further extra payment of Rs.13.35 lakhs per annum (or Rs.1.6 crores over 12 years) with reference to initial insurance premium of Rs.16.65 lakhs paid by the IRCON.

The annual fixed charges also included Rs.28.80 lakhs for operation during the first two years against Rs.23.04 lakhs to be paid by IRCON to the supplier. The aircraft supplier was to provide free maintenance for two years; the equivalent benefit thereof amounting to Rs.9.6 lakhs was not passed on to the Railways. IRCON also recovered contingency at the rate of 5 per cent instead of 3 per cent provided in the Railway contracts. IRCON recovered a further amount at the rate of Rs.2.5 lakhs per annum towards overheads; the basis and nature of this charge was not specified.

v) Against the average annual expenditure of Rs.51 lakhs on hiring of chartered/commercial flights during 1990-91 to 1992-93, the Railways now will have to bear liability of Rs.4.37 crores per annum (on account of interest on advance, fixed costs and variable costs).

vi) The Ministry of Railways had indicated (July 1993) to `Vayudoot' the tentative demand of about 200 flying hours per annum for chartering their aircraft. Under the circumstances, guarantee given by Ministry of Railways to IRCON for utilisation of aircraft for minimum 400 flying hours per annum was excessive.

The total liability that will devolve on the Railways for leasing of aircraft from IRCON would amount to Rs.38.77 crores in terms of accepted conditions.

The matter was referred to the Railway Board in September 1994; reply has not been received (January 1995).

The Ministries of Finance, Home Affairs, Defence and Civil Aviation were requested, in November 1994 to intimate whether any general guidelines had been prescribed in connection with acquisition of aircraft by the various Ministries and Departments of Government of India. While the Ministries of Home Affairs and Finance stated that no such guidelines has been issued, replies were not received from Ministries of Defence and Civil Aviation.

4.1.4 Eastern Railway: Unproductive investment on Flash Butt Welding Plant

Eastern Railway placed an order with a foreign firm in July 1989 for supply of Flash Butt Welding Plant at a cost of UK Pound 4.72 lakhs (European component) and Rs.20 lakhs (Indian component) although the South Eastern Railway had informed the Eastern Railway in March 1989 that a similar plant supplied by the same firm stood rejected because of its failure to achieve the rated production. The plant was to be erected and commissioned by the Railway under the supervision of representatives of the firm which was also to supply all necessary drawings etc. According to the terms and conditions of payment, the firm was to be paid 15 per cent of the FOB cost of contract on production of bank guarantee, 75 per cent on production of bill of lading and certificate of pre-despatch inspection and the remaining 10 per cent within 90 days of successful commissioning of the plant. The firm neither supplied the plant within the stipulated period of 8 months as per the supply order nor sought extention of time but the Railway suo moto extended the delivery period upto January 1992 without levy of penalty. The firm despatched the plant in December 1990 to the Railway without arranging the mandatory pre-despatch inspection by the Railway Adviser, Bonn, as prescribed in the supply order. Although this was brought to the notice of the Railway by the Railway Adviser, the Railway made payment of Rs.1.30 crores to the firm in July 1991. The Railway paid Rs.2.27 crores towards custom duty and incurred expenditure of Rs.2.29 crores on ancillary civil and electrical works which were completed only in June 1993.

The plant had not been commissioned as of September 1994 and investment of Rs.5.86 crores thereon had remained unproductive.

The matter was taken up with the Railway Administration in July 1994 with copy to the Railway Board; reply has not been received (January 1995).

4.1.5 Eastern Railway: Avoidable extra expenditure due to delay in finalisation of tender

Kanchrapara workshop of Eastern Railway placed an indent with Stores Department in April 1986 for purchase of 60 sets of gear wheel assembly in order to meet their requirement upto December 1987. The existing stock was stated to be nil. Eastern Railway Administration took nearly two years to float and process a global tender under International Development Association's (IDA) guidelines and recommended to the Railway Board (February 1988) purchase from an indigenous firm `A' whose offer was considered to be technically acceptable at the rate of Rs.1.43 lakhs per set. In June 1988 Railway Board directed the Railway Administration to re-examine its recommendation in view of the fact that the indigenous firm was not a fully established source. In September 1988, Eastern Railway after review recommended the offer of a foreign firm at the rate of Rs.1.75 lakhs per set (CIF) as it was an established source. The Ministry of Finance when approached for release of funds, rejected (January 1989) the proposal on the ground that the offer of the indigenous firm was technically acceptable as per World Bank guidelines and it was necessary to protect the indigenous manufacturers who had submitted competitive bids under the ICB procedure of the World Bank. Railway Board, therefore, directed Eastern Railway to invite fresh tenders for purchase of gear assembly in February 1989.

While a fresh global tender was opened in September 1989, the validity of IDA credit expired in the same month. The rate of Rs.2.90 lakhs per set quoted by the same indigenous firm A was found to be the lowest among the nine offers received. The Tender Committee recommended placement of orders for 20 sets on the indigenous firm A and 49 sets on the foreign firm at Rs.3.28 lakhs per set. The Railway Administration after modification placed Purchase Orders for 60 sets on the Indigenous firm A (October 1990) and 20 sets on the foreign firm (December 1990) because of high price demanded by the foreign firm. All the 80 sets were received in May and October 1993.

In the meantime, because of non-availability of Gear Wheel Assembly in Kanchrapara Workshop locos received for periodical overhaul were being turned out without replacement of worn-out gear wheels. Eastern Railway, therefore, had to place an order for 18 sets of Gear Wheel Assemblies in July 1989 against a special limited tender from the indigenous firm A at Rs.2.90 lakhs per set.

Out of 78 sets of Gear Wheel Assemblies, supplied by firm A, 36 sets were fitted with axles/locomotives and there was no adverse report on their performance except on one set. The twenty sets of imported Gear Wheels Assemblies had not been used as of 6 September 1994.

Due to delay in finalisation of tenders Railway Administration incurred avoidable expenditure of Rs.1.59 crores on procurement of 78 sets of Gear Wheel Assemblies. Procurement of 20 sets of Gear Wheel Assemblies from the foreign firm had resulted in extra expenditure of Rs.43.32 lakhs on the CIF value.

The Railway Board stated (January 1995) that the rate of Rs.1.43 lakhs per set was heavily subsidised with the benefit of IDA concession and the said rate had no relevance to open market rate. The fact remains that the Ministry of Railways was unable to derive the benefit of the concessional rate because of delay.

4.1.6 Western Railway: Delay in commissioning of wheel lathe due to defective foundation and damage because of rain water

An order for supply of narrow gauge surface wheel lathe costing Rs.1.30 crores for Pratapnagar workshop was placed in August 1987 on a supplier by the Central Organisation for Modernisation of Workshops (COFMOW). The machine received in November 1989 was installed at a total cost of Rs.1.29 crores. Expenditure of Rs.2.05 lakhs was incurred on replacement/repair of certain parts damaged in fire in January 1991.

Although the necessery foundation drawings were received from the supplier in May 1988, and finally accepted in August 1989, the foundation for installation of the lathe could be completed only in June 1990; due to delay in finalisation of drawings and approval of estimates. The machine could not, however, be erected since it was noticed in August 1990 that the pit of the foundation had been filled with water due to heavy seepage. The work of erecting the machine was held up till the seepage was completely eliminated. In February 1993 efforts made for commissioning the machine had to be abandoned due to leakage of hydraulic oil from the Tool Post. Later in July 1993, the machine got submerged in rain water as a result of which certain parts got damaged necessitating import of replacements. The supplier declined to repair the machine as it was beyond their warranty obligations.

The Railway did not conduct an inquiry into the reasons which led to submergence of the machine in rain water.

The failure of the Railway Administration to provide a proper foundation for the machine and to take the necessary precautions for the safety of the same and for the safe custody of the machine led to the entire expenditure of Rs.1.31 crores (including cost of repairs due to damages by fire) remaining unproductive for a period of five years. The machine had not been commissioned as of December 1994.

The Railway Board stated (January 1995) that the servo motor and certain other components which were damaged because of submergence in rain water during July 1993 were being procured now for commissioning of the machine in 3 to 4 months time and that the machine had now been surrounded by a brick wall to ensure that there was no damage to the machine in future from rain water.

4.1.7 Integral Coach Factory (ICF), Northern and Southern Railways: Avoidable expenditure due to mishandling of imported consignments

Central Organisation for Modernisation of Workshops (COFMOW) placed an order on a West German Firm in August 1988 for supply of 3 CNC Auto Plasma Profile Cutting Machines with spares at a cost of Rs.1.14 crores (DM 1,487,513) to two workshops viz. Jagadhri (Northern Railway) and Golden Rock (Southern Railway) and Integral Coach Factory (ICF), Perambur. The machines were received at Bombay Port in May 1989 and remained in open dock during heavy rains for about 42 days for want of customs clearance. After customs clearance on 22 June 1989 the machines were despatched by the Port Consignee viz. Central Railway to the ultimate consignee during July to September 1989.

The machine for ICF was loaded in open wagons on 10/11 July 1989 without tarpaulin cover and was found badly damaged on receipt at ICF on 28 July 1989. A joint survey conducted in November 1989/July 1990 at ICF concluded that damages occurred due to entry of water inside the consignments while in transit and also due to rough handling during transhipment. Insurance company paid Rs.7.18 lakhs against the claim of Rs.15.10 lakhs preferred by ICF. The machine was finally commissioned in October 1992 and had remained under break down for 2777 hours upto October 1994.

The machine received at Jagadhri workshop in September - October 1989 was also damaged by rust. The survey report (March - June 1990) concluded that the machine was damaged by rains while it was lying in dock for want of custom clearance. The insurance company paid Rs.10.33 lakhs against the claim of Rs.12.72 lakhs.

The machine received at Golden Rock in October 1989 also suffered similar damages. The claim of Rs.20.18 lakhs was preferred against insurance company and the claim was settled for Rs.10.61 lakhs.

As the machaines could not be installed for want of vital parts, COFMOW placed an order in September 1991 on the West German firm for supply of spare parts at Rs.2.16 crores. The spares were received during February to April 1992. The machines were commissioned at Jagadhri in January 1993 at ICF in October 1992 and at Golden Rock in February 1992. The performance of the machine in Golden Rock Workshop was not satisfactory. The performance of the other two plants was not made available by the Railway Board.

Thus failure on the part of Railway Administration to ensure proper storage, handling and carriage of the highly sophisticated machines and their subsequent transportation to ultimate consignees in open wagons led to extensive damages to the machines and had resulted in avoidable extra expenditure of Rs.1.88 crores.

The Railway Board stated (January 1995) that consignment could not be loaded in covered wagons due to over dimensions. Delay in clearance of consignment was becasue of customs formalities involved. As a remedial measures it was decided that in all such cases in future order be placed on turn key basis, with delivery to ultimate consignee being the responsibility of the contractor and the insurance cover would be suitably modified to cover such exigencies.

4.1.8 Central Railway: Blocking of funds due to excess procurement of Anti-creep Bearing Plates

In October 1986, the Railway Board directed the Zonal Railways to initiate immediate action to eliminate the use of wooden sleepers on certain locations and also on track renewal works. Accordingly, from 1988-89, the Railway Administration reduced the procurement of wooden sleepers.

Notwithstanding the said directions, Central Railway procured 1,45,407 numbers of Anti-Creep Bearing Plates, an item used for holding the rail and wooden sleepers together, at a cost of Rs.1.27 crores during October 1989 and October 1990 for track renewal and scattered renewal works. The stock position as on 30 April 1994, indicated that 78,831 number of Anti-Creep Bearing Plates valued at Rs.68.88 lakhs were still lying unused. With an average issue of 7500 numbers, (which might decline because of progressive discontinuation of wooden sleepers) the balance quantity can be expected to be used over the next 8 to 10 years only. Test check also indicated that out of the quantities issued to the executing agencies, large quantities had remained unutilised.

Consequently injudicious procurement of Anti-Creep Bearing Plates in excess of requirement resulted in blocking of funds aggregating to Rs.68.88 lakhs.

The Railway Administration in December 1994 and the Railway Board in January 1995 stated that 10,000 numbers of ACBPs were issued to Western Railway in November 1994 and the balance stock would be used once wooden sleepers were received for use on suburban section and platform sections.

4.1.9 Chittaranjan Locomotive Works: Loss due to poor import management

Chittaranjan Locomotive Works (CLW) placed an order on a Japanese firm in August 1990 for supply of 34 components with shelf life of 5 months for manufacture of traction motors. The Controller of Stores (BI), Eastern Railway who was nominated as the port consignee was responsible for taking delivery of the components from the Calcutta Port Trust after paying customs duty. The materials were despatched on 24 January 1991 in 8 packages and were unloaded at Calcutta Port on 1 March 1991, under the supervision of the Calcutta Port Trust. The Controller of Stores (BI), Eastern Railway, while taking delivery of 7 packages out of 8 packages in April/June 1991 neither brought the short receipt of one package to the notice of the Calcutta Port Trust nor reported the matter to the supplier or the Shipping Company for making good the shortages. Customs duty of Rs.30.58 lakhs was also paid for 8 packages, including Rs.27.27 lakhs on the package short received.

On 3 June 1991 Calcutta Port Trust issued a certificate that one package had short landed. The Port Consignee took up the matter with the Shipping Company in January 1992 and lodged a claim of Rs.10.66 lakhs. A claim for refund of customs duty for Rs.30.58 lakhs was also preferred with the Customs Authority for the package not received. In May 1992 the package alleged to have not been landed was identified by the Shipping Inspector, CLW within Port area but by that time shelf life of the materials had already expired.

The Calcutta Port Trust was not approached for restoration of damages for wrong certificate issued by it on 3 June 1991. The shipping Company repudiated the claim of Rs.10.66 lakhs on the plea that the package was physically available with the Port Trust. There was no response from the Customs Authority for refund of the customs duty paid. The Insurance company had not given any positive response to the claim lodged with it in February 1992.

In May 1993 CLW reimported the materials at a cost of Rs.54.66 lakhs. Thus, the failure of the Port Consignee to take up the matter with the Port Trust immediately after the short receipt was noticed resulted in avoidable expenditure of Rs.54.66 lakhs. No responsibility had been fixed for failure on the part of the Port Consignee.

While admitting the facts, the Railway Board stated (January 1995) that the Eastern Railway should pursue with Customs Authorities for refund of custom duty as by the time the material was received it had lost its useful life.

4.2 PLANT AND MACHINERY

4.2.1 Eastern Railway: Under utilisation of wheelset cleaning plants

In order to ensure quality and reliability of wheelsets, the Railway Administration procured two indentical wheelset cleaning plants at a cost of Rs.2.10 crores in 1988-89 for cleaning wheelsets at Lilluah Workshop under Workshop Modernisation Scheme. The plants were commissioned in December 1989 and April 1990 incurring an expenditure of Rs.1.90 lakhs. The rated capacity of each plant was 75 number of wheelsets per 7.5 hour shift or 3450 wheelsets per month (23 working days with two shifts).

A review in Audit of the performance of the plants revealed that while record of output was not kept during 1990, in 1991, the average outturn achieved by the plants was only 1136 wheelsets per month against the requirement of 1988 wheelsets. During 1992 the average outturn of the plant per month was 1440 wheelsets against the average arisings of 2004 wheelsets. Thus during 1991 and upto May 1992 the plants could clean only 58 per cent of the total requirement and 42 per cent of the wheelsets were deprived of quality service available from the cleaning plants. The plants also failed to clean wheelsets which were heavily soiled or which had sticky materials deposited on axles, although the acceptance of tender document clearly prescribed that the plant should be capable of achieving this objective.

The Railway Board stated (January 1995) that though the total workload could be tackled by one plant, two separate plants had to be procured, one each for cleaning wagon wheels and coaching wheels because of the location of work stations far away from each other. The Board attributed poor outturn to teething problems at initial stage and, at later stage, to the plants remaining under normal schedule maintenance and breakdowns. The Administration admitted that the plants were incapable of cleaning the heavily soiled wheelsets.

4.2.2 Central Railway: Unproductive expenditure on procurement of diesel cranes

Three diesel cranes of penumatic design received in Bombay Division from Jamalpur Workshop in August 1989 at a total cost of Rs.1.82 crores for traction distribution system were commissioned only in February 1990 after a delay of six months. All the three cranes developed defects and were out of order since April/May 1990. The matter was reported to Jamalpur Workshop in September 1990 but there was no response from the Workshop. The three cranes were awaiting repairs as of June 1994. The Railway Administration did not bring the matter to the notice of the Railway Board who had initially placed the order on Jamalpur Workshop.

Thus, the expenditure of Rs.1.82 crores incurred on the three cranes had remained unproductive. In the meantime the work had to be managed by old steam cranes which had rendered 20 years of service and in replacement of which the new cranes were procured.

The Railway Administration stated in December 1994 that the initial delay in commissioning of the cranes was due to the distance between Jamalpur workshop and Bombay Division because of which it did take some time to arrange and depute staff from Jamalpur to Bombay. The Railway Administration added that the defects in the cranes were due to design deficiencies of a new technology being implemented for the first time and that efforts were being made to repair the cranes and put them back in working order.

The Railway Board stated (January 1995) that there was inadequate follow up by the user departments for repair of their cranes and assured that these cranes would be repaired by Parel Workshop within six months.

4.2.3 Central Railway: Delay in commissioning of plant and machinery at Coach Repair Workshop

A Coach Repair Workshop was set up at Nishatpura (Bhopal) in July 1989 at a cost of Rs.64.87 crores (estimated) for undertaking "Periodical Overhaul of coaches and corrosion Repair" of 500 coaches per year. Nine items of plant and machinery valued at Rs.121.25 lakhs were procured between June 1990 and June 1992. Five machines valued at Rs.47.83 lakhs were commissioned after delays of 10 to 44 months, and four other machines valued at Rs.73.42 lakhs received between July 1991 and May 1992 had not been commissioned even as of July 1994. The details are given in the table below:

Sl. No.	Description of equipment	Cost as per S.O. (In lakhs of rupees)	Amount paid to the supplier (In lakhs of rupees)	Date of receipt	Date of commissioning	Delay in months	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Phosphating Plant	50.57	45.94	July 1991	Not commissioned	37 months	Delay in completion of foundation
2.	Motorised Bogie turn tables	17.15	12.52	February 1992	November 1993	21 months	Non-availability of drawing

Sl. No.	Description of equipment	Cost as per S.O. (In lakhs of rupees)	Amount paid to the supplier (In lakhs of rupees)	Date of receipt	Date of commi-ssioning	Delay in months	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
3.	Rail Weigh Bridge	9.98	8.82	June 1990	March 1994	44 months	Defects in founda-tion
4.	Electronic Lorry Weigh Bridge	5.51	4.78	April 1991	April 1993	23 months	Defects in foundation
5.	Normalising Car Bottom Furnace #	7.37	6.46	Septem-ber 1991	Not commi-ssioned	34 months	Delay in com-pletion of founda-tion
6.	Roller Bearing Clearing System	6.55	5.90	June 1992	April 1993	10 months	Inade-quate assess-ment of power re-quire-ment
7.	Magnaflux Testing Equipment	8.64	8.18	August 1991	June 1993	21 months	--DO--
8.	Draw Bar coupling Testing Machines	10.19	7.04	May 1992	Not commi-ssioned	26 months	Delay in comple-tion of foun-dation
9	Electronic Card Atten-dance Clock System *	5.29	4.61	July 1991	Not commi-ssioned	36 months	Defects in machi-nes

\# The foundation for normalising car bottom surface was ready in March 1993, but the supplier firm did not erect and commission the equipment. In the mean time, the Railway Administration had already made 95 per cent payment towards the cost of equipment.

* The Railway Administration had released 95 per cent of the cost of hardware against the purchase order provision of 75 per cent of the cost of material received in good condition at site.

Avoidable payment of dividend on the capital locked up on account of delay in commissioning of the plant and machinery worked out to Rs.17.77 lakhs up to 1993-94. Following were the other consequences of delay:

- The phosphating plant (cost Rs.50.57 lakhs) was acquired in order to coat the mild steel components to make them corrosion proof; delay in commissioning of phosphating plant by the Railway Administration necessitated use of costlier corten steel (which does not require phosphating) in place of mild steel involving extra expenditure of Rs.7.42 lakhs between July 1991 and June 1993.

- Due to the non-availability of Roller Bearing Cleaning Plant (cost Rs.6.55 lakhs), the bearings were being cleaned manually; the extra expenditure incurred on manual cleaning could not be assessed.

- In the absence of Normalising Car Bottom Furnace (cost Rs.7.37 lakhs) and Draw Bar Screw Coupling Testing Machine (cost Rs.10.19 lakhs) draw bar hooks screw couplings, and other bogie components were sent to Jhansi Workshop; the extra expenditure involved could not be ascertained as separate records were not maintained by the Railway Administration.

- The Railway Administration had lost the benefit of warranty.

The Railway Administration needs to streamline its procedures including monitoring so that such delays are avoided. The matter was brought to the notice of Railway Administration in July 1993; reply has not been received (January 1995).

4.2.4 Northern Railway : Infructuous expenditure on import of Mobile Gas Pressure Welding Plants

The Railway Board received a **suo moto** offer from the Indian agent of a foreign manufacturer for supply of mobile gas pressure welding plant in October 1989. Although the Board was not fully satisfied on the technical details furnished by the Indian agent, and the Indian Railways' experience with the only gas pressure welding plant purchased in 1965 (which had operated as a stationary plant) had not been very good, the Board decided (May 1990) to import 10 plants. Later, in June 1990 the Board also directed Northern, Western and South Eastern Railways to send vetted indents for the procurement of 3, 2 and 5 number of plants respectively. After inviting detailed quotation from the foreign manufacturer the Board placed order in August 1991 on foreign manufacturer for the supply of 10 plants at a cost of Rs.70.85 lakhs without observing the performance of the equipment under field conditions. On receipt of supplies, 8 plants were given to Konkan Railway Corporation Limited (KRCL) in January 1992 and two were retained on Northern Railway one each with the Permanent Way Inspector (PWI), Aligarh and Thermit Portion Plant (TPP), Lucknow. The two plants were made workable after heavy repairs to the pump on 15 March 1992 and put on trial welding by Northern Railway.

A review of the performance of the plants both on Northern Railway and in KRCL in May 1992 revealed that the plants were not functioning satisfactorily. Against the rated capacity of about 200 joints per month, only 12 joints in TPP, Lucknow and a few joints in PWI, Aligarh were welded (March/May 1992) and none of the joints achieved the desired properties. Their performance was also affected by other major technical problems and they remained idle after June 1992. KRCL reported that only 30 per cent of the 150 joints welded upto April 1992, were well formed; however, none of the 16 well formed joints which were tested was found to be satisfactory. In view of the unsatisfactory performance of these plants, Northern Railway recommended (December 1992) action against the firm before expiry of performance guarantee (January 1993). Despite adverse performance report received from Northern Railway and KRCL, the Board did not take any action against the firm within the validity of the performance guarantee upto January 1993. In the meantime, the agency commission of Rs.3.01 lakhs was paid to the Indian agent of the foreign supplier in May 1992.

Subsequently, at the instance of Northern Railway the Board decided that the 8 plants transferred to KRCL should remain permanently with them The KRCL, however, informed the Board that one out of 8 plants had already been sent to Research Designs and Standards Organisation (RDSO) Lucknow (May 1993) while the remaining 7 plants were not required by them and would be returned to Northern Railway. Northern Railway was unwilling to take back these plants and the stalemate on this account continues (July 1994). The debits on account of cost of these plants had also not been raised against KRCL so far (July 1994)

The injudicious purchase of the plants without observing their trial performance resulted in infructuous expenditure of Rs.70.85 lakhs.

The Railway Board admitted (January 1995) that the working of the plants on Indian Railways had not been very satisfactory and stated that the plants were imported for trial and development of this technology in Indian Railways and that it was expected that by modification in the procedure of working and the parameters, better quality of rail joints from these plants can be obtained.

4.2.5 South Eastern Railway: Idle investment in procurement of a costly machine

The Railway Administration procured a bull dozer, an essential safety equipment attached to Accident Relief Train (ART) for salvaging, removing and other heavy duty operations at a cost of Rs.68.03 lakhs (including spares) in March 1992. The specifications of the bull dozer were finalised by the Administration before placing the indent on Directorate General of Supplies and Disposals in December 1990.

On receipt of the bull dozer, the Railway Administration found that the equipment could not be put to use as it could not be adjusted on the BFU wagons because of its width.

As a sequel, the Railway Administration transferred (March 1993) the bull dozer to a construction unit but it was returned on the plea that it was not required. When there was no prospect of its utilisation either on open line or in the construction organisation the Railway Administration approved a proposal to hire out the equipment to private contractors. This proposal also did not materialise.

Subsequently, the Railway Administration stated that the bull dozer was transferred to CLW for use in the Steel Foundry Workshop in April 1994. Due to failure of the Railway Administration to match specifications with requirements, expenditure of Rs.68.03 lakhs incurred on the purchase of bull dozer had remained unproductive for over 2 years.

4.2.6 Chittaranjan Locomotive Works: Loss due to obsolete/wasteful technology

Under the gravity filling system for filling evaporators with liquid oxygen in vogue in the steel foundry of Chittaranjan Locomotive Works (CLW) since 1963, residual liquid oxygen was required to be blown out of the evaporators to make them completely empty before fresh filling. The average wastage of liquid oxygen by this system of filling in the case of four evaporators worked out to 420 cubic metre per day. Although an alternative system based on pressure filling technology, with minimal losses had been installed by a Public Sector Undertaking located nearby, as early as 1987, the CLW continued with the system installed in 1963 with the attendent loss which was assessed in Audit as Rs.34.28 lakhs for the period from 1989 to 1992. CLW stated in November 1993 that it had started the process of equipping itself for the alternative pressure filling technology. However, the system based on alternative technology had not yet been installed and detailed estimates had been prepared only in May 1994. Delay in adoption of an available efficient technology led to avoidable loss of Rs.34.28 lakhs. The capital cost involved in adopting new technology was only Rs.1.70 lakhs (at May 1993 prices).

The Railway Board stated (January 1995) that the system of pressure filling was installed and clearance from the Chief Controller of Explosive, Nagpur, was awaited.

4.2.7 Northern Railway: Avoidable expenditure on procurement of off-track tie tampers

Ministry of Railways in November 1983 placed a development contract on firm `A' for the manufacture and supply of five sets of "off-track tie tampers" at a cost of Rs.6.59 lakhs.

The Research, Designs and Standards Organisation (RDSO) inspected the prototype tamper (April 1984) and recommended the manufacture of remaining four sets for further field trials to be conducted by the Central Railway. The Board in May 1984 approved the manufacture of the remaining 4 sets, which were supplied to Central and Western Railways. The sets were modified after conducting field trials in September 1984, December 1984 and January 1985 on Central Railway as these did not provide satisfactory service.

The performance of the sets, however, did not come up to requirement even after modification inasmuch as the output on Central Railway on an average remained between 105 to 176 sleepers only against the rated output of 300 sleepers per eight hour shift stipulated in the contract. Subsequently in September 1987, Western Railway also reported that the performance of these tampers was unsatisfactory

The Railway Board did not take into account the inadequate performance of the 5 prototype tampers and placed another contract on the same firm for manufacture and supply of 20 sets of tie tampers at a cost of Rs.31.74 lakhs for conducting trials on a wider scale. The Zonal Railways were directed (December 1987 and July 1988) to extensively use these tampers and furnish detailed performance reports to the Board.

The tampers were supplied to the Zonal Railways in June 1988. Except for South Central Railway, no other Railway submitted the performance reports. However, based on South Central Railway's report (November 1988) and discussions with other Railways, RDSO finally in April 1993 concluded that the tampers had a very limited utility.

Placement of order in 1987 for 20 sets of off track tie tampers at a cost of Rs.31.74 lakhs when the working of the 5 tie tampers supplied against 1983 contract was not upto expectations and the modified tampers supplied as per RDSO's directives were not giving the rated output of 300 sleepers was, therefore, injudicious and resulted in avoidable expenditure of Rs.31.74 lakhs.

The Ministry of Railways (Railway Board) stated (January 1995) that the 20 sets were procured for deployment for picking up slacks/spot attention on concrete sleepers and earlier expected output of 300 sleepers per 8 hour working was not a requirement in this procurement. The Railway Board did not, however, clarify how the tampers were considered for wider trial in view of the known poor performance of five sets already purchased.

4.2.8 South Central Railway : Non-utilisation of Traction Power Transformer

Railway Electrification (RE) Organisation procured 12.5 MVA capacity transformer for use on Vijayawada - Balharshah Railway Electrification Project. The Transformer (SI.No.2002305) costing Rs.14.76 lakhs remained unused at

Ramagundam since its purchase in 1985. The transformer carried warranty for 18 months.

In July 1986, the Railway Board identified the Vijayawada - Balharshah section for running 4500-T trains. In February 1988, Research, Designs and Standards Organisation (RDSO) conveyed a decision that 13.5/20 MVA transformer were required in that Section for hauling 4500 tonne trains. The 12.5 MVA transformer was consequently shifted to Kavali, where the existing transformer had failed, and was commissioned in May 1990 But it failed the very next day and was repaired at a total cost of Rs.15.54 lakhs.

The Railway Administration stated that the transformer failed due to a defect which would not surface through pre-commissioning tests and that the actual cause for the failure of the transformer could not be established. The Railway Administration did not explain why the transformer could not be shifted and used elsewhere soon after the Vijayawada - Balharshah section had been identified for running 4500-T trains.

Thus the failure of the Railway Administration to commission the transformer within the warranty period of 18 months and keeping it idle for over 5 years resulted in additional expenditure of Rs.15.54 lakhs on its repairs which could have been avoided.

The Railway Board stated (January 1995) that the transformer was procured in 1985 after due testing and inspection at the time of supply, to ensure that the transformer was in working order and was expected to perform in service as per specifications. The Railway Board, however, did not clarify why the transformer could not be immediately shifted and commissioned elsewhere during warranty period, when it was found that it was not required at Ramagundam. The Railway Board, however, stated that results of a detailed investigation will be furnished separately.

4.2.9 Central Railway: Idling of costly machine

The Railway Administration procured a Traction Motor Load Testing Plant in April 1990 at a cost of Rs.12.15 lakhs for the Traction Machine Workshop, Nasik Road. The Administration incurred further expenditure of Rs.1.65 lakhs on providing electric cable and on erection and commissioning of the plant. However, pre-commissioning trials of the equipment conducted in November 1992 revealed that the plant was drawing abnormally high current which led to maximum contracted demand of electricity of Traction Motor Workshop being exceeded. In order to over come the problem of power factor, an Auto Transformer control arrangement costing Rs.2.5 lakhs to Rs.3 lakhs in place of the existing thyristor type AC regulator was considered necessary. However, this had not been provided and the equipment was lying idle.

The equipment was supplied to the specification of the Administration. The failure of the Railway Administration to assess the power requirement of the machine vis-a-vis existing arrangement for supply and subsequent delay in taking remedial measures had resulted in idling of investment of Rs.13.80 lakhs for 4 years.

The Ministry of Railways (Railway Board) stated (January 1995) that the plant was being put to the limited use and that with the installation of the auto-transformer for which procurement action had now been initiated, the plant will be utilised fully.

4.3 STORES

4.3.1 Central Railway: Avoidable extra expenditure due to injudicious rejection of tender

Open tenders invited in May 1990 for supply of 3 lakhs cums of 65 mm machine crushed ballast and loading the same into Railway's wagons/hoppers, were discharged by the Administration in January 1991 on the ground that while the past performance of the lowest tenderer (rate Rs.120 per cum) was not satisfactory, the next two higher tenderers `B' (rate Rs.126.72 per cum) and C' (rate Rs.130.50 per cum) did not have adequate financial solvency as they had submitted solvency certificate for Rs.15 lakhs each only.

Subsequently in February 1992 a contract for the same work but for a reduced quantity of 2.25 lakh cum, was awarded to contractor `C' at the rate of Rs.154.50 per cum. The contractor had submitted solvency certificate of Rs.40 lakhs.

Audit scrutiny revealed that the solvency certificate for Rs.40 lakhs had already been submitted by contractor `C' in November 1990. The rejection of the lower offer of Rs.130.50 per cum in January 1991 was, therefore, injudicious and led to avoidable extra expenditure of Rs.54 lakhs on procurement of 2.25 lakh cum of ballast.

The Railway Board stated (January 1995) that contractor `C' submitted a solvency certificate for an amount of Rs.40 lakhs in November 1990 which did not get put up to the Tender Committee. The Tender Committee had thus deliberated upon the information available on that particular file. The reply of the Railway Board did not clarify why complete information was not made available to the Tender Committee and the remedial action taken in the matter.

4.3.2 South Eastern Railway: Avoidable expenditure on purchase of steam loco material

In January 1988, the Railway Board decided to discontinue steam loco Periodical Overhaul (POH) at Kharagpur Workshop with effect from April 1988. The entire steam loco arisings of South Eastern Railway for POH were to be dealt with by Eastern Railway. The decision was duly communicated to the General Manager, Financial Adviser and Chief Accounts Officer and Chief Workshop Engineer.

Notwithstanding this decision, the Railway Administration placed indents on the Board for supply of 2195 Super Heater Elements (used in Steam Loco POH) between February and April 1989 On the basis of these indents, the Railway Board placed purchase orders for supply of 1355 Super Heater Elements of five different types to Kharagpur Workshop. These were supplied to the Workshop between January 1991 and June 1992 at a cost of Rs.32.56 lakhs.

According to the information supplied by the Ministry of Railways (Railway Board) in January 1995, 1884 elements of five different types were lying unutilised. The available stock of four out of five types of elements exceeded the quantities supplied to the workshop between January 1991 and June 1992 which indicated that the procurement of these types of elements was injudicious. In respect of the remaining one type, the quantity in stock as of January 1995 was 381, against 434 purchased. Thus only 53 elements of this type had been used. The injudicious purchase of steam loco items had resulted in blocking of funds to the extent of Rs.31.27 lakhs.

The Railway Board stated in January 1995 that a programme had been launched to use the Super Heater Elements in the manufacture of Brake Beams for ICF coaches.

4.3.3 Central Railway: Infructuous expenditure on procurement of defective tarpaulins

Central Railway received 800 numbers of water proof tarpaulins in January 1991 against a supply order placed in October 1990 at a total cost of Rs.17.17 lakhs, after due inspection by the Director of Inspection (DOI) of the Directorate General of Supplies and Disposals (DGS&D)

The samples were ordered to specification 2089-1977, which prescribed that the tarpaulins should prevent leakage when placed in the form of a cone, either through the apex of the cone or through the outer surface of the canvas. The leakage of water along the contact line with the metal frame of the tarpaulin was not, however, a ground for rejection.

Sample test for water proofing carried out by the Railway in February 1991 disclosed that the tarpaulins were leaking from the joints as well as from other portions. A joint inspection was carried out between 18th and 20th March 1991 which was attended by the representatives of the Railway, the Supplier firm and DGS&D In a report signed by the DGS&D representative and firm, and not by the Railway representatives, it was observed that the tarpaulins met IS specification 2089-1977 However, it was also noted in the report that in the test method adopted by the Railway, when water was poured on the tarpaulins tied on four corners with pillars, it did not leak initially but when additional quantities were poured, it did leak at the seams. According to the Railway Administration (March 1991) in view of the leaky seams and joints of tarpaulins, these were not fit for traffic use in monsoon as a claim prevention measure The DOI (DGS&D) insisted (April 1991) that the tarpaulins in question should be accepted as their rejection was based on a crude method and not covered by any specification. The Railway accepted all the 800 tarpaulins and in response to an offer from the firm in May 1991, got the waxing on seams done (December 1992) free of cost, to ensure that there would be no leakage of water from the seams. There was no evidence to indicate that water proof tests were carried out thereafter

Inspite of waxing on the seams the Railway Administration decided (September 1993) to use the tarpaulins only for covering consignments unloaded in covered sheds and not for wagon covering while in transit as originally envisaged. As a result the purpose for which the material was procured was not fulfilled. Out of 800 tarpaulins, 61 numbers were eaten up by white ants, 4 numbers were misplaced and the remaining 735 were taken into account. Out of these 735 number, 610 were supplied between June and July 1994 to Divisional units more than three years after procurement, to cover consignments unloaded in covered sheds and for covering General Manager's office building.

Thus, due to the failure of the Railway Administration to assess properly whether the consignment ordered as per standard specifications would meet its particular requirement, it obtained tarpaulins which it could neither use fruitfully nor reject outright. This led to infructuous expenditure of Rs.17 17 lakhs.

The matter was referred to Central Railway with a copy to the Railway Board in June 1994; reply has not been received (January 1995).

4.3.4 Western Railway: Infructuous expenditure on procurement of RCC sleepers

A contract for manufacture supply and laying in track of 6,000 Reinforced Cement Concrete (RCC) twin block sleepers for Ajmer Division was awarded to a contractor in January 1986. The special conditions of the contract specified that all reinforcement, steel angles, tie-bars and polythene dowels required for fitting on the twin block sleepers would be provided by the contractor free of cost. Other fittings prescribed in the Research Designs and Standards Organisation's (RDSO) type plan such as, HDP liners, steel clips, metal screws, hydulignum pad etc. were not mentioned in the special conditions of the contract. The contractor was to produce test certificates regarding the quality of Polythene dowels, tie bars and steel from a recognised testing laboratory.

The contractor supplied 6750 RCC-sleepers and the fittings specified in the special conditions of the contract between June and December 1986 An amount of Rs.15.08 lakhs was paid to him (upto November 1986) even though all the prescribed laboratory test certificates were not furnished by him. In February 1990 the contractor declined to supply the other fittings required under the RDSO type plan, on the ground that this requirement was not specified in the special conditions of the contract. As it was not possible to lay the sleepers in track without all the necessary fittings and test certificates, these have been lying unutilised since their receipt.

Thus due to the Railway's failure to make the terms of the contract precise and definite, the expenditure of Rs.15.07 lakhs on the procurement of the sleepers had remained unproductive. This had also led to loss of benefit of supplier's guarantee which was available only for 12 months from the date of receipt of sleepers or six months after these were brought into service whichever was earlier.

The Railway Administration while accepting the facts of the case stated that the additional fittings were being procured The Ministry of Railways (January 1995) admitted that the contract was defectively drawn up but stated that the expenditure had not become infructuous, as the sleepers would be utilised.

4.3.5 Central Railway: Avoidable extra expenditure on account of excess consumption of High Speed Diesel oil

In January 1984, the Railway Board prescribed the norms of shed consumption of High Speed Diesel (HSD) oil at the rate of 750 litres per loco per month which should cover all shed movements, load box testing etc., of WDM-2 and 4 type locos. A scrutiny by audit of consumption of High Speed Diesel (HSD) oil in the diesel loco sheds at Itarsi, New Katni and Pune revealed that consumption of High Speed Diesel oil was far in excess of the norms resulting in avoidable extra expenditure of Rs.204.20 lakhs as mentioned below:

(Quantity in litres, Amount in lakhs of Rupees)

Loco shed	Period	Consumption as per norm	Actual consumption	Excess consumption (percentage)	Cost of excess consumption
Itarsi	April 1988 to December 1990	4064625	7413969	82.40	107.45
New Katni	June 1987 to May 1989 and December 1989 to May 1990	3510300	4720095	34.46	37.38
Pune	April 1985 to March 1991	3573000	5488211	53.60	59.37
				Total	204.20

The Railway Administration attributed excess consumption to absence of leak off pipes, non-shutting of locos when not required/detained in shed, contamination of High Speed Diesel oil with water necessitating complete draining and absence of close monitoring. These were avoidable.

4.3.6 Western Railway: Avoidable and unproductive expenditure on procurement of materials for the Narrow Gauge Section

According to the Corporate Plan 1985-2000 of the Indian Railways the Railways had decided to close most of the Narrow Gauge Sections. Further the Railways had also decided to introduce unigauge system in January 1992. Notwithstanding this, Western Railway procured sleepers costing Rs.85.59 lakhs between September 1991 and August 1993 for the work of complete track renewal of the Narrow Gauge Section of Vadodara Division sanctioned in January 1992. Additionally, the Railway Administration had booked expenditure of Rs.0.57 lakh in connection with the said work. In January 1994 the Railway Administration decided that in order to achieve the objective of unigauge system, no track renewal would be carried out on Narrow Gauge Section. The sleepers already purchased have not been disposed of and the likelihood of their utilisation is also remote in view of the unigauge policy. The failure to review the work of track renewal of Narrow Gauge Section of Vadodara Division in the light of the Corporate Plan 1985-2000 and the unigauge policy decision in January 1992 resulted in avoidable expenditure of Rs.86.16 lakhs which had remained unproductive.

The Ministry of Railways stated (January 1995) that the Zonal Railway was being asked to explain the reasons for procurement and the cost involved in short closure of this sleeper contract.

4.4 ROLLING STOCK

4.4.1 Purchase of WAG-5 Type AC Electric locomotives

The Railway Board issued a Letter of Intent for manufacture and supply of 5 Nos. of WAG-5 type 25 KV AC electric locos to M/s Bharat Heavy Electricals Ltd. (BHEL), New Delhi on 20th November 1985 (revised to 35 Nos. in September 1986) at a provisional price equivalent to the actual manufacturing cost at Chittaranjan

Locomotive Works (CLW) or the actual manufacturing cost at BHEL whichever was lower. The first five prototype locos were expected to be available by April - October 1987 and the remaining number by 1987-88 (10 numbers) and 1988-89 (20 numbers).

BHEL imported 10 number of complete fabricated steel bogies for fitment in 5 prototype locos although in December 1986 CLW was in a position to supply the bogies. This involved extra cost of Rs.40.80 lakhs to the Railways. The Railways also finally agreed in March 1990 to a unit price of Rs.165 lakhs per loco (with free supply of traction motors) with price variation against the manufacturing cost of Rs.108 lakhs at CLW on the ground that BHEL had incurred considerable expenditure on infrastructure for manufacture of locos although BHEL had stated in August 1985 that it was in a position to take up manufacture of complete locos without further investments. The supply was completed only in 1991-92.

The failure of the Railways to commit BHEL to definite commercial terms and conditions including the price of locos and subsequent grant of higher unit price contrary to the Letter of Intent resulted in extra expenditure of Rs.19.95 crores to the Railways.

The Ministry of Railways (Railway Board) stated (January 1995) that the cost of BHEL locomotive would invariably be higher as BHEL had to incur higher financing charges due to their higher borrowing rate. This contention of the Board was not tenable because the Railways had paid an interest free advance of 15 per cent of the cost of 25 locos (Rs.6.18 crores) to BHEL which was to be adjusted on prorata basis starting from 11 to 35 locos. The Board, however, agreed that after this experience, the need to order on an outside source like BHEL at prices higher than Railway's own production units would be considered in detail in future.

4.4.2 Southern Railway: Loss due to non-utilisation of new BG AC EMU coaches

In order to meet the requirement of additional traffic Railway Board allotted (May 1992) 15 Broad Gauge (BG) AC EMU Coaches (9 Motor and 6 Trailer) planned for manufacture at Integral Coach Factory (ICF) during 1992-93 to Southern Railway for conversion of the existing 8 Car Rakes on the BG suburban system into 9 Car Rakes (six Motor coaches) and for forming one 9 coach rake (3 Motor coaches and 6 Trailer coaches) for the Madras Beach-Luz section of the Metropolitan Transport Project (MTP), a new line. The coaches were received from ICF during June to October 1992 at a cost of Rs.9.81 crores. However, the coaches had remained unutilised since then for the following reasons.

i) Although the coaches were allotted to the Railway in May 1992, the infrastructural facilities necessary for the running of 9 Car Rakes like extension of platforms, modifications to signals, extension of inspection shed at Avadi etc., were sanctioned only in October/November 1993 and contracts were awarded in November/December 1993. The works of extension of platform and inspection shed at Avadi were completed only in July and October 1994 respectively.

ii) The Administration approached the Commissioner for Railway Safety for issuing sanction for the running of 9 Car Rakes in May 1994 and permission was received only in September 1994.

iii) The proposal to utilise the 9 Coach Rake intended for the Madras Beach-Luz section on the new BG line between Madras Beach and Tambaram (after gauge conversion) is also not likely to materialise before March 1995 considering the present pace of progress of work.

Thus faulty planning leading to failure to create the infrastructure facilities to match the acquisition of EMU coaches, resulted in the investment of Rs.9.81 crores remaining unfruitful for over two years besides denial of the intended relief to commuters. It also resulted in avoidable incurrence of liability on dividend amounting to Rs.100.55 lakhs (at 6.5 per cent for 1992-93 and 7 per cent for 1993-94 on the capital cost of Rs.9.81 crores). The Administration stated (December 1994) that all the coaches had been pressed into existing/additional service from April 1993 onwards. A scrutiny in Audit of log books and daily position statements from July 1994 onwards, however, revealed that three out of nine coaches had remained almost unutilised. The extent of utilisation of the remaining six coaches was 56 per cent; this too appeared to have been achieved by keeping the existing coaches as stand by in excess of the prescribed norms.

CHAPTER V

REVIEWS

5.1 Working of Mechanical Workshops

1. Introduction

The Indian Railways held a fleet of 7806 locomotives, 3444 coaches, 30322 conventional coaches and 337562 wagons as on 31 March 1993 with an investment of Rs.4829.89 crores. The safety and reliability of Railway transportation system depend on the proper maintenance of rolling stock. For this purpose the Railways have 46 workshops equipped with plant and machinery, manpower and infrastructure. The expenditure on repair and maintenance of locomotives, carriages and wagons rose from Rs.1621.33 crores in 1989-90 to Rs.2024.12 crore in 1992-93. The total expenditure on repair and maintenance of rolling stock amounted to Rs.7245.63 crores during the four years 1989-90 to 1992-93 which represented 21 per cent of total ordinary working expenses.

2. Organisational set up

The workshops are under the control of the Mechanical Department of the Railways headed by the Chief Mechanical Engineer. The direct control of the affairs of the workshops is exercised by the Chief Workshop Engineer who is the administrative head of the department. The performance of the workshops is monitored by the Member (Mechanical) in the Railway Board.

3. Scope of Audit

The review covers the working of selected workshops for the period from 1989-90 to 1992-93.

4. Highlights

- Capacity of Carriage Repair Workshop Tirupati and Rail Spring Manufacturing Plant Sithouli remained grossly under utilised.

Para 5(i) and (ii)

- Enormous investments on modernisation of 4 workshops did not yield the benefits envisaged in the scheme of modernisation; in three workshops the cost overrun was Rs.23.08 crores.

(Para 6)

- Shortfalls in periodical overhauls (POH) were noticed in Railway workshops due to less/irregular receipt of rolling stocks, lack of materials, power interruptions etc. Shortfalls resulted in loss of Rs.44.14 crores in three railways due to under-utilisation of labour.

Para 7(a)

- Excess time taken for POH of rolling stock resulted in loss of earning capacity of Rs.38.07 crores on Western, Central and Northeast Frontier Railways.

Para 7(b)

- Percentage of Arrears of Periodical overhaul of coaches and wagons did not show any improvement during the period under review.

Para 7(c)

- The extent of rejection of wagon (BG) and wagons (MG) within three months of their POH was high and ranged between 9 and 43 per cent and between 15 and 32 per cent respectively..

Para 7(d)

- Reasons for wide variations in the average cost of POH noticed in many workshops were not analysed by the Railways.

Para 7(e)

- Detention to rolling stock before POH resulted in loss of earning capacity of Rs.58.37 crores on Central, Southern, Northern, Western and Eastern Railways.

Para 7(g)

- Plant and machinery costing Rs.32.76 crores were commissioned after delays of 6 months to 8 years.

Para 8(a)

- Incidence of idle time ranged between 18.5 and 22.15 per cent of total manhours during 1989-90 to 1991-92.

Para 10(a)

- Irregular payment of overtime allowance to staff governed by incentive scheme of four railways worked out to Rs.5.05 crores.

Para 10(e)

5. Under-utilisation of capacity

i) Carriage Repair Workshop, Tirupati: Shortfall in performance of the Carriage Repair Workshop (cost Rs.58.65 crores) which commenced functioning in September 1985 was commented in Paragraph 2.4 of the Report of the Comptroller and Auditor General of India, Union Government (Railways) for the year 1990-91 The Railway Board explained that the projected target could not be achieved because of non-induction of new coaches on the Railways on account of delay in production of coaches in Rail Coach Factory (RCF) Kapurthala.

Althouth RCF Kapurthala had since exceeded its production target, the utilisation of capacity of the Carriage Repair Workshop ranged between 25 and 35 per cent only during 1989-90 to 1992-93.

ii) **Rail Spring Manufacturing Plant, Sithouli**: The Rail Spring Manufacturing Plant, Sithouli (Gwalior) commissioned in March 1990 at a cost of Rs.51.58 crores was to produce 2000 MT of coil spring in the first year (1990-91), 3000 MT in the second year (1991-92) and 5000 MT in the third year (1992-93) for achieving a total saving of Rs.30.33 crores. The actual production of springs was, however, only 952 in 1990-91, 1274 in 1991-92 and 1677 in 1992-93; the shortfall in the outrurn deprived the Railway of the saving of Rs.12.46 crores on import. The average cost of production of spring of Rs.105.28 per Kg. and Rs.88.72 per Kg during 1990-91 and 1991-92 respectively was higher than the market price of Rs.55 per Kg and resulted in extra expenditure of Rs.4.79 crores and Rs.4.29 crores to the Railways. The average cost of production for 1992-93 had not been worked out.

6. Modernisation of workshops

With a view to achieving reduction in periodical overhaul (POH) cycle time of rolling stock, and effecting economy in the cost of rolling stock maintenance including POH, the Railways made investments aggregating to Rs.390.59 crores on modernisation of 10 workshops in Phase I (Kharagpur, Kancharapara, Lower Parel and Matunga) and Phase II (Jagadhri, Golden Rock, Kharagpur, Ajmer, Perambur and Lilluah).

Ajmer Workshop: Expenditure of Rs.29.40 crores was incurred upto March 1994 on the modernisation of Ajmer Workshop taken up in July 1986 for completion by July 1990 at an estimated cost of Rs.23.52 crores representing cost overrun of Rs.5.88 crores. Against the targetted increase of POH of 36 diesel locos, the actual increase from 1990-91 was 24; the increase in POH of coaches was nil against the target of 936 units per annum. Shortfall in the out turn of coaches deprived the Railway of anticipated savings of Rs.27.53 crores.

Jagadhari Workshop: Expenditure of Rs.42.40 crores was incurred on the modernisation of Jagadhri Workshop upto March 1994 against the estimated cost of Rs.32.68 crores. The modernisation did not result in the anticipated increase in the capacity of 1500 units of wagons and 300 units of coaches per month (upto 1992-93).

Carriage and Wagon Works Perambur: After completion of modernisation (estimated cost Rs.4.25 crores) no improvement in POH time of wagons/coaches was noticed. The time taken for POH of carriages after modernisation actually increased after modernisation.

Golden Rock Workshop: Modernisation of Golden Rock Workshop taken up in 1985 at a cost of Rs.21 crores for completion by December 1989 was actually completed (except in respect of revamping of cranes and Road Transport Shop) in 1992-93 at a cost of Rs.28.48 crores involving a cost overrun of Rs.7.48 crores.

Kharagpur Workshop: Despite the investment of Rs.55.34 crores, the modernisation of Kharagpur Workshop did not result in any significant reduction in the cost of POH. The output of the Workshop also declined after modernisation: coaches from 3001 to 2531, wagons from 11704 to 9844 and diesel locos from 80 to 60 between 1984-85 and 1992-93. 13 to 18 per cent of wagons were rejected within three months of POH.

7. Production Management

(a) Shortfalls in Periodical Overhaul: The targets for periodical overhaul and other repair activities are fixed by the Railway Board keeping in view the installed capacity, holding of rolling stock, requirements of traffic etc.

On Western Railway there were shortfalls of 6610 units in outturn of POH activities of wagons and coaches in Ajmer and Kota workshops during 1989-90 to 1992-93. Loss on account of under-utilised labour was worked out to Rs.6.52 crores.

Loss on account of shortfall in respect of other repair and manufacturing activities during 1989-90 to 1992-93 in Ajmer, Kota, Parel and Dahod Workshops compared to the targets was assessed at Rs.24.86 crores. The main reasons for shortfall in outrurn were less/irregular receipt of rolling stock, lack of materials, power interruptions, diversion of staff to other activities etc.

On Southern Railway, shortfalls in achievement of targets led to loss of Rs.35.68 lakhs and Rs.45.85 lakhs on account of under utilisation of labour in Perambur and Golden Rock Workshops respectively during 1989-93.

On Northern Railway against the annual targets of overhaul of 720 wagons for Bikaner Workshop and 5100 wagons for Alambagh Workshop, the actual outturn ranged between 614 and 685 and between 4007 to 5086 respectively during 1989-93.

On Eastern Railway achievements significantly lower than targets were noticed during 1989-90 to 1992-93 in Jamalpur and Lilluah Workshops for some of the major items, the extent of shortfall ranged between 26 and 67 per cent and between 51 and 68 per cent in the case of wheel supply to Divisions and manufacture of UIC bogies respectively.

On Central Railway shortfalls in outrurn of POH of wagons and coaches in Parel, Matunga and Jhansi Workshops during 1989-90 to 1992-93 resulted in loss of

Rs.11.51 crores on direct and indirect labour etc. Shortfall in outturn in Iron and Brass Foundries of Parel Workshop resulted in extra expenditure of Rs.43.29 lakhs on pay and allowances of workshop staff during 1989-90 to 1992-93. The reasons for shortfall were not on record.

New Bongaingaon Workshop of Northeast Frontier Railway failed to achieve the targets of POH of wagons and coaches during 1989-90 to 1992-93. The shortfall was attributed by the Deputy Chief Maintenance Engineer of the Workshop to non-availability of critical items like paint, roller bearings, buffer plunger and less feed of coaches and wagons.

(b) Repair Time Cycle: The Railway Board had prescribed repair cycle time for different types of rolling stocks. Statistics for 1991-92 brought out by the Railway Board in respect of selected workshops revealed that the actual time taken for POH of rolling stock was far in excess of targets fixed, statistics for 1992-93 and 1993-94 had not been published.

- Against the norm of 4 days, five workshops (Kota, Samastipur, Izatnagar, Dibrugarh and New Bongaigaon) took 9 to 17 days for POH of wagons.

- Two workshops (Kharagpur and New Bongaigaon) took 45-46 days for POH of coaches against the norm of 18 days.

- Kharagpur workshop took 184 days for POH of diesel locomotives against the norm of 25 days; the time taken in Perambur and Parel workshops (Western Railway) was 33 and 42 days respectively.

- Parel workshop (Western Railway) took 104 days for POH of electric locomotives against the norm of 25 days; the time taken in Kancharapara workshop was 115 days.

The excess time taken for POH/IOH by different workshops of Western Railway during 1989-90 to 1992-93 resulted in non-availability of MG/BG steam locos for 3526 days for traffic resulting in loss of earning capacity of Rs.7.03 crores. The loss of earning capacity of BG/MG coaches and wagons for 220269 days was estimated at about Rs.15.57 crores.

On Central Railway excess time taken for POH of locomotives, wagons and coaches in Parel, Jhansi Workshops during 1989-90 to 1992-93 resulted in loss of earning capacity of rolling stock of Rs.13.75 crores.

On Northeast Frontier Railway because of excess time taken for repair of coaches and wagons in Dibrugarh and New Bongaigaon Workshops, detention to rolling stocks for 24279 days during 1989-90 to 1992-93 resulted in loss of earning capacity of Rs.1.72 crores for 685 coaches and 300 wagons.

An order was placed on Izatnagar Workshop in April 1982 by the Railway Board for manufacture of 10 ton crane at an estimated cost of Rs.28.77 lakhs per crane. The work which was to be completed within 32 months from April 1984 was actually completed in 1992 at an extra cost of Rs.3.75 crores due to escalation in cost of labour and material. Delay in completion of the work had not only resulted in extra cost due to escalation but also in under utilisation of manpower of the workshop.

(c) **Arrears of Periodical overhaul**: The Railway Reforms Committee observed in its second Report (9th Lok Sabha) that coaches overdue for POH was 7.99 per cent on BG and 3.37 per cent on MG and recommended that the Railways should make serious efforts to clear the backlog. Although the Railways assured the Committee that with modernisation of workshops and reduction in POH cycle time, further improvement in this regard would be possible, 9 to 10 per cent of BG wagons and 7 to 8 per cent of BG coaches remained overdue for POH at the end of each year during 1989-90 to 1992-93.

(d) Quality control: The wagons turned out in workshops are to be certified first by the Neutral Control Organisation (IRCA) before they are sent out for traffic. Quarterly Reports of wagons marked sick within 3 months after POH prepared by Indian Railway Conference Association revealed large scale rejection of wagons within three months of their periodical overhaul as indicated below.

Percentage of rejection of wagons

Name of the workshop	1991-92	1992-93	1993-94
Wagons (BG)			
Jhansi	12	11	13
Perambur	10	9	15
Kharagpur	15	13	16
Alambagh	21	28	43
Kota	10	11	11
Wagons (MG)			
Jodhpur	16	17	19
Bikaner	15	17	19
Izatnagar	18	19	18
Samastipur	22	27	20
New Bongaigaon	26	24	20
Dibrugarh	27	37	32

On Northern Railway 2170 wagons and 672 coaches though rejected by NTXR between April 1989 and March 1993 were not offered to NTXR for certification and were passed without NTXR's certification for traffic use.

The financial implications of large scale rejection of rolling stock were not assessed by the Railways.

(e) Cost of Periodical Overhaul: The average cost of Periodical overhaul of different types of rolling stocks (as per the statistics compiled by the Railway Board) had increased from Rs.4.10 lakhs and Rs.4.66 lakhs for BG and MG steam locomostives to Rs.6.32 lakhs and Rs.5.80 lakhs, from Rs.16,198 to Rs.21,031 for BG wagons and from Rs.48,130 to Rs.60,697 for BG coaches between 1989-90 and 1992-93.

Scrutiny of outrurn statements of some of the Workshops received in the Railway Board also revealed wide variations in the average cost of POH as indicated in Annexure. The Railway Board had not analysed the reasons for such wide variations.

(f) Deficiencies in the fittings of coaches: The prescribed procedure of joint verification of rolling stock received for POH by the workshop staff and the base depot staff was not followed. In Tirupathi workshop, shortages on account of missing fittings were assessed unilaterally by the Workshop staff at Rs.60.16 lakhs from July 1991 to September 1992. In Lallaguda Workshop loss on account of deficiencies of mechanical and electrical fittings of coaches worked out to Rs.3.28 crores during 1989-90 to 1993-94. The loss on account of missing fittings (both electrical and mechanical) in MG coaches sent to Hubli Workshop for POH during 1989-90 to 1992-93 worked out to Rs.27.83 lakhs. In New Bongaigaon and Dibrugarh workshops of the Northeast Frontier Railway, costly items valued at Rs.46.18 lakhs were found missing during 1991-92 and 1992-93. These shortages had neither been investigated nor written off.

(g) Detention to rolling stock before POH: Detentions of wagons/coaches in excess of three days prior to their being taken up for POH had resulted in their non-availability for traffic use and consequent loss of earning capacity. On Central

Railway rolling stock was detained at workshops for 73,633 days with resultant loss in earning capacity of Rs.721.76 lakhs during 1989-90 to 1992-93. On Southern Railway rolling stock suffered detention of 81,291 days at Perambur and 5,518 days at Golden Rock resulting in loss of Rs.255.65 lakhs during 1989-90 to 1993-94 (September 1993). On Northern Railway stock was detained for 38,097 days with loss of Rs.153.54 lakhs during 1989-90 to 1992-93.

On Western Railway 44301 units of rolling stock suffered detention of 14207 days in Kota, Dahod and Ajmer workshops during 1991-92 and 1992-93. The loss of earning capacity was assessed at Rs.9.42 crores.

At Kanchrapara workshop of Eastern Railway, 328 coaches suffered detention for 82 days on an average per coach during 1989-90 to 1992-93 resulting in loss of earning capacity of Rs.6.6 crores. At Lilluah workshop 393 wagons and 3587 coaches suffered detention of 51.76 days per wagon and 37.55 days per coach respectively during 1989-90 to 1992-93 in excess of the maximum time allowed for POH. This resulted in loss of earning capacity of Rs.73.39 lakhs for wagons and Rs.30.31 crores for coaches.

(h) Loss due to detention of loaded wagons in workshops yards: Western, South Central and South Eastern Railways suffered loss of Rs.8.60 crores by way of earning capacity due to excessive detention of loaded wagons in workshop yards of Kota, Guntapalli and Kharagpur during 1989-90 to 1992-93.

Demurrage charges of Rs.1.24 crores were paid by Ajmer and Dahod workshops during 1989-90 to 1992-93 due to excessive detention of wagons in workshop yards.

Northern Railway paid Rs.33.28 lakhs as demurrage charges for detention of rolling stock (1140 wagons) in Alambagh and Charbagh workshops during 1989-90 to 1992-93.

8. Equipment Management

(a) Delayed commissioning of plant and machinery: On Western Railway thirty nine machines and equipment (cost Rs.7.80 crores) remained idle for varying periods from 6 to 26 months during 1989-90 to 1992-93.

On Eastern Railway 33 plants and machinery (cost Rs.8.10 crores) remained idle for 12 to 36 months during 1986-87 to 1992-93.

South Central Railway sustained a loss of Rs.6.12 lakhs due to delay of over two years in commissioning an Electric Plating Plant (cost Rs.26.45 lakhs) received in Tirupati workshop in June 1990.

A Hydraulic Press Brake Machine costing Rs.107 lakhs procured by Northern Railway for Jagadhri workshop in June 1990 was not commissioned by the supplier. The Railway entered into a separate contract with another firm in March 1994 for commissioning of the machine at a cost of Rs.6 lakhs. The machine was put to trial in June 1994 but went out of order in July 1994 and was still not functioning.

One heavy duty carriage and wagon axle journal turning and burnishing lathe costing Rs.148 lakhs purchased in Alambagh workshop Lucknow in September 1990 was commissioned only in January 1992 due to the failure of the Railway to complete the foundation and civil engineering works.

In Golden Rock Workshop 18 machines/equipments (cost Rs.2.75 crores) were idle for varying periods from 6 to 39 months during 1989-90 to 1992-93

In Jhansi workshop 7 machines (cost Rs.174.68 lakhs) were commissioned after delays of 1 year to 8 years because of delay in finalising site for foundation, delay in completion of civil engineering works, defects noticed in the machines and non-receipt of vital components. In Parel and Matunga Workshops 7 machines costing

Rs.2.09 crores were commissioned after delays of 7 to 12 months due to short supply of certain items and delay in installation of the machines by the firms.

In Kharagpur and Raipur Workshops of South Eastern Railway 44 machines costing Rs.391.73 lakhs received between 1982 and 1992 were commissioned after delays of 6 to 54 months. Reasons for delay in commissioning were (i) incomplete foundation, (ii) machines received in defective condition/with deficient parts etc.

On Northeast Frontier Railway 13 plant and machinery costing Rs.196.65 lakhs received between June 1987 and January 1993 were commissioned after delays of 12 to 42 months in Dibrugarh and New Bongaigaon workshops. The delay in commissioning of machines was mainly due to late completion of foundations.

Three items of machinery costing Rs.1.04 crores procured for Lallaguda Workshop during 1988 to 1992 were commissioned after a delay of over one year The delay was attributed to non-completion of foundation and delay in replacement of deficient parts. Two machines costing Rs.52.83 lakhs were commissioned in Hubli Workshop after a delay of 20 months due to non-supply of accessories in time by the firms.

(b) Breakdown of Plant and Machinery: In Ajmer, Kota, Dahod and Parel workshops of Western Railway 24 machines/equipments (cost Rs.1.82 crores) remained idle due to breakdown for varying periods upto 5 years. A Governor Test stand machine costing Rs.5 lakhs and an Eowden Air Compressor machine costing Rs.6.30 lakhs remained under breakdown for 2130 days and 1465 days from February and December 1989 onwards respectively upto December 1993. 14 old machines replaced by new machines had not been disposed of for periods of more than 1 year to 12 years (May 1994). In Parel and Matunga Workshops of Central Railway 9 machines costing Rs.4.05 crores remained idle due to break down for varying periods from 42 days to 5 years.

(c) Under utilisation of machines: In Ajmer workshop five plants and machinery valued at Rs.2.88 crores remained under utilised to the extent of 55 to 99 per cent during 1989-90 to 1992-93; the reasons for under utilisation were less workload, machine break down, power failure etc.

Two axle turning lathes installed in Alambagh and Jodhpur workshops in January 1985 and April 1985 respectively at a cost of Rs.94.71 lakhs remained under utilised to the extent of 84 and 29 per cent respectively during 1988 to 1993 (upto October 1993) and July 1990 to March 1994 due to less workload. One high speed planning machine procured for Alambagh workshop in July 1988 at a cost of Rs.49.18 lakhs was commissioned in August 1992, but remained unutilised for 13 months thereafter (till August 1993) on account of non-fixation of allowed time for incentive purposes.

In Dibrugarh and New Bongaigaon Workshops of Northeast Frontier Railway 42 machines costing Rs.133.74 lakhs were declared surplus. Out of these, 18 machines were found unsuitable on account of changes in operating practices and remained under utilised as of March 1993.

9. Material Management

(a) Overstock: The Ministry of Railways (Railway Board) directed the Zonal Railways to restrict the holding of overstock and inactive items to 5 per cent of total inventory. The Workshop Depot at Golden Rock Workshop was holding overstock items valued at Rs.4.28 crores relating to Metre Gauge rolling stocks as of March 1993. Overstocked and inactive items were valued at Rs.3.38 crores constituting 27 per cent of total inventory in two workshops of Northeast Frontier Railway at New Bongaigaon and Dibrugarh as of December 1992. Three workshops at Parel, Matunga and Jhansi of Central Railway were holding surplus stores valued at Rs.2.83 crores as of 31 March 1993. Surplus stores valued at Rs.23.4 lakhs were held by Dahod Workshop of Western Railway due to phasing out of POH activities of BG steam locomotives. Inactive and overstocked items valued at Rs.3.32 crores at the end of December 1993 were held by four workshops of Western Railway viz. Ajmer, Parel, Kota and Dahod..

In wagon repair shop, Guntupalli stores valued at Rs.1.03 crores, Rs.1 crore and Re.0.83 crore were lying unutilised on the shop floor at the end of 1990-91, 1991-92 and 1992-93 respectivly.

On Western Railway materials (including scrap) valued at Rs.17.76 crores were lying on the shop floor of workshops at Ajmer, Kota and Dahod at the end of March 1993.

(b) **Procurement of over/under sized spares**: Spares purchased at a cost of Rs.40 lakhs remained unutilised (February 1994) in Carriage and Wagon Workshop Alambagh on Northern Railway because these were found to be over/under sized. The Railway Administration was unable to give any reasons for the procurement of oversized/undersized spares.

(c) **Irregular procurement of bearings**: Northern Railway procured 841 sleeve type bearings at a cost of Rs.44.98 lakhs during March 1990 to September 1991 despite Railway Board's decision in December 1976 to adopt direct mounted roller bearings on ICF coaches instead of aligning spherical roller bearings (sleeve type). Out of this, 260 numbers were used between March 1990 and March 1993 and the remaining quantity of 581 bearings valued at Rs.31.07 lakhs remained unused as of March 1993.

(d) **Rejected Stores**: In Parel Workshop of Central Railway 55 items of stores costing Rs.36.53 lakhs were rejected during 1984 to 1993. Neither the rejected materials were replaced nor the amount paid in advance was recovered till June 1994.

10. Manpower utilisation

(a) Idle time: Idle time for direct workers arises from power cuts, machinery under repair or non availability of components etc. For such idle time workers get wages without doing any work.

It was observed from the statistics compiled by the Ministry of Railways (Railway Board) that in respect of six major workshops of Northern (Lucknow), Southern (Perambur), North Eastern (Samasthipur), South Central (Guntapalli) and Western (Ajmer) Railways, the incidence of idle time ranged between 18.5 and 22.15 per cent of the total manhours during 1989-90 to 1991-92. Similar statistics for 1992-93 had not been compiled.

During 1989-90 to 1992-93, idle time booked in Ajmer, Dahod, Kota, Parel workshops of Western Railway was 6.93 lakhs manhours out of which 5.34 lakh manhours involving an expenditure of Rs.73.08 lakhs (approximately) were for reasons other than power cuts. 1.26 lakh idle manhours valuing Rs.17.42 lakhs were on account of lack of materials, 0.11 lakh idle manhours valuing Rs.1.75 lakhs was on account of lack of tools and 0.46 lakh manhours valuing Rs.5.46 lakhs was for want of work, while the balance was on account of machinery under repair and other reasons.

In Carriage and Wagon Repair Shop, Perambur, 1,66,291 man hours were lost as idle time during April 1991 to March 1993 for reason other than power shut down. The loss in financial terms worked out to Rs.17.41 lakhs.

In Central Railway 879266 manhours were booked idle at three Workshops at Parel, Matunga and Jhansi during 1989-90 to 1992-93 for reasons such as waiting for work, lack of material, power cuts, failure of cranes, trains running late, machine breakdown. The financial loss worked out to Rs.79.72 lakhs on the basis of average hourly rate of wages.

In Jamalpur Workshop of Eastern Railway though no target for manufacture of 10 ton crane was fixed, 407,896 manhours were available for the work. Even by diverting these extra manhours, the workshop could not achieve the target of six 20 ton crane per year during 1989-90 to 1992-93. The actual outturn varied betwen 2 and 4 cranes a year.

(b) Surplus Artisans: On Western Railway 429 Supervisors/Artisan staff were rendered surplus in March 1994 due to reduction in the workload for MG steam locomotives in Ajmer workshop and had not been relocated. The recurring expenditure on the surplus manpower amounted to Rs.11.70 lakhs per month.

On South Eastern Railway, avoidable expenditure of Rs.9.06 crores was incurred upto November 1993 on 531 artisans rendered surplus consequent on shifting of work of POH of carriages at Raipur Wagon Repair Workshop to Mancheswar Carriage Repair Workshop from January 1987.

(c) Irregular operation of posts: The Railway Board issued directives (November 1991) that the existing temporary workcharged posts at Workshops could be continued till the currency of the sanction and thereafter the same could be created by General Managers only against matching surrenders. 86 workcharged posts sanctioned for the work relating to Diamond Frame Bogies being undertaken in the Carriage and Wagon Workshop Ajmer which expired in March 1991 were continued upto September 1992 without sanction or matching surrender. The delay in surrender resulted in irregular expenditure of Rs.33.95 lakhs upto August 1992.

In Parel and Dahod Workshops on Western Railway 65 posts in different categories were operated without the sanction of the competent authority for more than one year and upto five years in some cases. The expenditure incurred on operation of these posts worked out to Rs.1.07 crores from July 1988 to December 1993.

In Jagadhari workshop of Northern Railway 221 posts in various categories were operated between 1992 and 1993 in anticipation of sanction of the competent authority and expenditure of Rs.9.01 crores was incurred on the pay and allowances.

In Jodhpur workshop irregular expenditure of Rs.52.34 lakhs was incurred on 111 posts and 102 posts of unskilled workers operated in excess during March 1990 to December 1991 and January 1992 to February 1993 respectively.

Delay in surrendering the surplus posts in Jhansi and Parel Workshop resulted in irregular expenditure of Rs.1.36 crores during January 1990 to April 1992. The staff became surplus due to decrease in target and closing down of POH activity of Steam Locomotives.

(d) Payment of Incentive Bonus to workers: An incentive scheme i.e. a scheme of payment by results whereby a workman can additionally earn upto 50 per cent of this standard basic wages by increasing his output was introduced in Railway Workshops in 1961.

An amount of Rs.13.69 crores was paid to workers in five workshops on Western Railway as Incentive Bonus during 1989-90 to 1992-93, though the outturn of the workshops had declined. In a number of cases the time saved exceeded 100 per cent of time actually taken. This was indicative of unrealistic fixation of the allowed time.

In three workshops viz. Parel, Matunga and Jhansi irregular payment of Rs.79.52 lakhs towards incentive bonus was made to indirect workers during 1989-90 to 1992-93.

(e) Irregular payment of overtime: The Railway Board issued instructions in February 1982 (reiterated in August 1992) that no overtime should be booked for the staff working under incentive scheme. Despite this four Railways paid Rs.5.05 crores as overtime allowance during 1989-90 to 1993-94 (Northern Railway Rs.0.83 crore, Western Railway Rs.0.59 crore and Central Railway Rs.0.79 crores and South Eastern Railway Rs.2.84 crores) to staff governed by the incentive scheme.

The matter was taken up with the Railway Administration and Railway Board between August and October 1994; no reply has been received (March 1995).

ANNEXURE

(c.f. Paragraph 7(e)

Average cost of POH in different workshops on Indian Railways

(In Rupees)

i) Diesel Loco (BG)

	1989-90	1990-91	1991-92
1. Parel	965700	970500	636000
2. Jamalpur	1355900	1898900	1751900
3. Golden Rock	1894600	1469400	2050600
4. Kharagpur	2068100	1844700	2385500
Variation between minimum and maximum	1102400	928400	1749500
Percentage	114.15	95.66	275.07

ii) Electric Loco (BG)

	1989-90	1990-91	1991-92
Kalyan	1379600	1714300	2563600
Kanchrapara	807300	518000	1181700
Kharagpur	820000	810000	886500
Difference between maximum and minimum	590300	1196300	1677100
Percentage	73	230	129.18

iii) BG Wagons

	1989-90	1990-91	1991-92
Jhansi	18810	32042	33718
Alambagh	14023	15004	18883
Perambur	18926	21797	25384
Lilluah	35548	22022	22309
Difference between maximum and minimum	21525	17038	14835
Percentage	153.49	113.55	78.56

iv) MG Wagons

	1989-90	1990-91	1991-92
Samastipur	11915	13965	18357
Izatnagar	15118	21046	24600
Debrugarh	23334	17338	14965
Ajmer	7652	11457	16212
Difference between maximum and minimum	15682	9589	9635
percentage	204.93	83.69	64.38

v) BG Coaches

	1989-90	1990-91	1991-92
Jhansi	101329	141320	192719
Lilluah	65295	66074	68548
Alambagh	20537	22004	26669
Perambur	72980	76391	82562
New Bongaigaon	27579	47393	53700
Difference between maximum and minimum	80792	119316	166050
percentage	393.39	542.24	622.63

vi) MG Coaches

	1989-90	1990-91	1991-92
New Bongaigaon	120389	39899	48580
Debrugarh	80555	49931	44814
Bikaner	55312	41652	54176
Izatnagar	37802	39841	42250
Golden Rock	38852	44001	47426
Difference between maximum and minimum	82507	10090	11926
percentahge	218.47	25.32	28.22

5.2 Electricity Charges

1. Introduction

The Electrical Department of the Railways is, inter alia, responsible for purchase and distribution of electricity and billing and payment arrangements with the suppliers (State Electricity Boards) and recovery from consumers. Points noticed in test-check of records relating to purchase, distribution and supply of electricity on the Indian Railways are mentioned in the subsequent paragraphs.

2. Highlights

- Seven Zonal Railways and Chittaranjan Locomotive Works paid penal charges of Rs.37.70 crores due to consumption of energy in excess of contracted demand.

  (Para 3)

- Two Zonal Railways paid penalty charges amounting to Rs.15.08 crores on account of overshooting of maximum demand due to bunching of trains.

  (Para 4)

- Failure to maintain the prescribed power factor led to payment of penal charges amounting to Rs.16.44 crores by four Railways.

  (Para 5)

- Zonal Railways paid Rs.27.98 crores as penaltydue to non-installation/non-commissioning and inappropriate installation of shunt capacitor banks which were intended to maintain the power factor.

  (Para 6)

- Due to delay in payment of electricity bills, the benefit of rebate of Rs.67.04 lakhs was lost by various Zonal Railways between the period from 1989-90 to 1993-94.

  (Para 7)

- Energy charges from private parties, Government Departments and other users were not recovered to the extent of Rs.5.14 crores between the period from 1987-88 to 1993-94.

  (Para 12)

- Four Zonal Railways paid avoidable amount of Rs.70.95 lakhs due to less consumption of energy.

  (Para 8)

- Due to defective meters, Northern, Northeast Frontier and Western Railways made avoidable payment of Rs.2.30 crores during the period from 1987-88 to 1989-90.

  (Para 9)

- Due to non-segregation of Industrial and non-industrial load extra paymentsof Rs.26.04 crores were made by various Zonal Railways between the period from 1986-87 to 1993-94.

  (Para 10)

- Due to inability to negotiate the concessional tariff charged by State Electricity Boards for other bulk industries/consumers, Northern, Western, South Eastern and Central Railways were charged Rs.35.28 crores.

  (Para 11)

3. Consumption of energy in excess of contracted demand

According to terms and conditions of the agreements between the State Electricity Boards and the Railway Administrations, the consumption of electricity should not exceed the contracted demand. Consumption of electricity in excess of the contracted demand attracts penal charges for the excess load over and above the contracted load.

Seven Zonal Railways and Chittaranjan Locomotive Works incurred expenditure of Rs.37.70 crores on payment of penal charges because of excess consumption of electricity over the contracted demand during 1989-90 to 1993-94.

Railway	Amount (In lakhs of rupees)
South Eastern	1038.14
Central	1016.00
Western	733.49
Southern	714.01
Northern	180.63
Eastern	57.58
South Central *	5.59
Chittaranjan Locomotive Works	24.58

* During 1987-88 to 1990-91

Northern Railway paid Rs.7.08 crores on account of excess consumption of energy during 1984 to 1991 due to failure to assess the increase in demand for power and apply for additional load for sub-station at Chanakyapuri well in time. Although the additional load was retrospectively enhanced from November 1985 and again from September 1990, only an amount of Rs.28.47 lakhs out of penal charges could be adjusted. Diesel Component Works, Patiala paid Rs.10.60 lakhs to the Punjab Electricity Board as penalty charges because of failure to take timely action to obtain sanction of additional load commensurate with the demand.

The Railway Administrations need to review their energy requirements, from time to time and secure additional load from the Electricity Boards in order to minimise the payment of penal charges.

4. Over shooting of maximum demand due to bunching of trains

Integration period is the fixed duration of time in consecutive minutes for assessing drawal of load for the purpose of determining whether the load is within the maximum contracted demand or not. Railway Reforms Committee pointed out that the integration period of 15 consecutive minutes fixed in the case of some of the Electricity Boards was unduly harsh and a larger integration period of 30 minutes fixed by most of the State Electricity Boards merited consideration and was justified.

On Western Railway the integration period fixed by Gujrat, Maharashtra and Rajasthan Electricity Boards (GSEB, MSEB and RSEB) was 30 minutes, whereas that fixed by the Madhya Pradesh Electricity Board (MPEB) was only 15 minutes. Due to short integration period the bunching of trains on the areas fed by the MPEB often led to over shooting of the maximum demand which resulted in payment of penalty charges amounting to of Rs.525.65 lakhs during 1989-90 to 1993-94.

On Central Railway the Uttar Pradesh State Electricity Board (UPSEB), Madhya Pradesh Electricity Board (MPEB) and Haryana State Electricity Board (HSEB) had not permitted larger integration period of 30 minutes. This had necessitated payment of penalty charges amounting to Rs.982 lakhs to the State Electricity Boards.

5. Penalty charges on account of low power factor

Power factor is the ratio of energy available for consumption to that actually consumed. When the power factor is low, the mains and the generator capacity in the power house are inefficiently utilised, the voltage regulation will be poor and system losses and energy bill will be high. Failure to maintain the prescribed power factor necesitated payment of Rs.1644.17 lakhs towards penalty during 1987-88 to 1993-94 on four Railways.

Railways	Period	Amounts (in lakhs of rupees)
Central	1987-88 - 1993-94	872.00
South Eastern	1989-90 - 1993-94	504.53
Eastern	1989-90 - 1993-94	228.11
Southern	1989-90 - 1993-94	39.53

6. Provision of shunt capacitors

Railway Board issued instructions in April 1984, October 1986 and March 1988, to the Zonal Railways for planning the capacitor banks (shunt capacitors) at sub-stations sufficiently in advance to avoid payment of penalties on account of low power factor.

Central Railway paid Rs.4.15 crores to MPEB during July 1988 to June 1991 on account of low power factor in respect of 9 traction sub-stations due to delay in installation of shunt capacitors. The Railway Administration paid Rs.98.26 lakhs as similar penalty during August 1991 to July 1993 because of failure to maintain the power factor despite installation of shunt capacitors at 8 traction sub-stations at a cost of Rs.2.07 crores. In Bombay Division, low power factor due to delay in installation of shunt capacitors necessitated payment of penalty charges of Rs.28.08 lakhs to MSEB during April 1992 to March 1994.

On Western Railway, despite the provision of shunt capacitors at a cost of Rs.3.96 crores, there was no significant improvement in the power factor and the Railway paid Rs.15.45 crores towards penal charges during 1989-90 to 1993-94. Non-improvement of power factor even after providing capacitors was attributable inter alia to improper metering equipment i.e. "Bivector" instead of "Trivector" provided at the sub-stations.

Northern Railway paid Rs.3.70 crores to UPSEB during 1988-89 to 1991-92 on account of penalty for low power factor because of delay in installation and unsatisfactory functioning of four shunt capacitors. This was in addition to the payment of Rs.4.11 crores upto 1988 pointed out in the Reports of the Comptroller and Auditor General of India for the years ended 1985 and 1988.

On Eastern Railway, despite installation of capacitor banks at Karamnasa and Sonenagar, penalty charges of Rs.6.23 lakhs were paid for the period April 1990 and

August 1991. Subsequently, when the minimum power factor was raised from 0.80 to 0.85 by the Bihar State Electcity Board (BSEB), the capacitor banks failed to meet the enhanced requirements and the Railway paid penal charges of Rs.108.29 lakhs for the period September 1991 to May 1994. The capacitor banks had not been replaced as of January 1995. On Kudra and Rafiganj due to non-installation of shunt capacitors penalty of Rs.65.11 lakhs was paid for the period April 1990 and to May 1994. Similar delay in providing shunt capacitor upto February 1991 necessitated payment of penalty of Rs.15.16 lakhs by Liluah Workshop during 1986 to 1991.

South Eastern Railway paid Rs.1.08 crores to MPEB upto December 1992 because of delay in commissioning of shunt capacitor banks at two traction sub-stations of Nagpur Division. Even after commissioning of the capacitor banks at the above stations, the Railway paid penal charges amounting to Rs.13.41 lakhs during the period from January to March/October 1993 because the power factor did not improve.

On Southern Railway, delay on the part of contractor in supply and erection of shunt capacitors at all traction sub-stations beyond the contracted period of November 1992 to December 1993, necessitated payment of penal charges amounting to Rs.25.25 lakhs for the period from January to December 1993 on account of low power factor.

7. Avoidable extra expenditure due to delays in payment of bills

State Electricity Board tariffs stipulate that rebate can be availed on electricity bills if paid within the prescribed period mentioned therein. As a result of delays in processing the bills and payment after the prescribed date the Railways could not avail of the rebate and had to bear an avoidable expenditure resulting in loss of Rs.67.04 lakhs during 1989-90 to 1993-94 as detailed below:

Railway	Amounts (in lakhs of rupees)
Western	23.48
Central	21.67
Northern	16.65
Southern	03.92
South Central	*1.32

* relates to payment of surcharge due to delay

8. Avoidable payment due to consumption of less energy than contracted demand

The terms and conditions of tariff/agreements with the Electricity Boards provide that billing demand for the month shall be the maximum demand or 75 per cent of the contracted demand whichever is higher.

An avoidable payment of Rs.41.81 lakhs was made by four zonal Railways on account of less consumption of energy than contracted as under:

Railway	Period	Amount (in lakhs of rupees)
Central	1987-88 - 1993-94	18.14
Northern	1986-87 - 1990-91	17.55
South Central	1988-89-1993-94	4.54
South Eastern	1988-89 - 1993-94	1.58

On Central Railway, Rs.0.59 lakh was paid to MPEB at Katni for the period July to November 1987 as minimum demand charges even though there was no consumption of electricity. On the same Railway Rs.13.45 lakhs and Rs.15.10 lakhs were paid in respect of Multai Sub-station for October and November 1992 respectively, though the said sub-station was taken on load from December 1992.

9. Excess payment of electricity charges

Because of defective energy meter for service consumption at Suraj Kund Sub-station from December 1987 to September 1992, Northern Railway paid Rs.1.76 crores extra on account of inflated billing by the UPSEB at 3.83 lakh units per month from April 1987 to March 1988 and 4.21 lakh units per month thereafter upto August 1992 against the average actual monthly consumption of 1.33 lakh to 1.55 lakh units during January-March 1987. On Ferozepur Division, failure to check the electricity bills with meter readings led to excess payment of Rs.1.94 lakhs.

On Northeast Frontier Railway, following the non-functioning of 33/11 KV transformer meters for New Jalpaiguri and Siliguri Railway Complex in September 1991, the Railway paid Rs.66.78 lakhs in excess to the West Bengal State Electricity Board (WBSEB) for the period from March 1992 to September 1993 because of billing based on average consumption for the two transformers although another Sub-station transformer was installed at Siliguri Junction on 17th March 1992. Out of the amount overpaid, only Rs.17.28 lakhs had been adjusted as of July 1994.

On Western Railway, Rs.2.85 lakhs was paid to GSEB due to incorrect billing upto August 1989 as per L.T. Panel (old) initially installed.

10. Non-segragation of industrial and non-industrial loads

State Electricity Boards and other local electric supply companies charge seperate electric energy tariff rates for industrial purposes which is higher than the rate for non-industrial purposes.

Non-segregation of industrial and non-industrial load had resulted in heavy recurring expenditure on account of energy supplied to Railway quarters for which the

Railways were billed at industrial tariff rates, while recovery was made from the staff at domestic rates. This resulted in payment of hidden subsidy to the Railway staff.

In four Divisions of Northern Railway (Ambala, Delhi, Jodhpur and Lucknow) and Diesel Component Works, Patiala, payment of energy charges by the Railway without segregating the industrial and domestic loads resulted in subsidy of Rs.8.09 crores to the employees during 1990-91 to 1993-94.

Central Railway incurred expenditure of Rs.3.78 crores towards payment of subsidy to Railway employees for the year 1991-92 alone since the MSEB, MPEB and USPEB which had supplied energy to the Railway in Bhopal, Bhusaval, Jabalpur, Nagpur and Solapur Divisions did not agree to segregation of the load supplied to Railway colonies. The Railway had incurred expenditure of Rs.2.14 crores on account of similar subsidy for the period 1986-87 to 1990-91 on Bombay, Jabalpur, Jhansi, Nagpur and Solapur Divisions.

On Northeast Frontier Railway in the absence of separate metering, the Railway incurred avoidable extra expenditure of Rs.5.68 crores upto March 1993 on account of power used.for domestic consumption.

Southern Railway incurred avoidable extra expenditure of Rs.4.24 crores on payment of electricity charges to the Tamil Nadu Electricity Board because of its failure to keep the lighting and non-industrial loads within the sanctioned load as a consequence of which the entire consumption was charged at H.T. tariff. In Mysore Division extra expenditure of Rs.6.3 lakhs was incurred on payment made to Karnataka Electricity Board because of non-segregation of domestic loads and other loads.

On South Eastern Railway because of drawing power for domestic and operational and maintenance purpose from one source, extra expenditure of Rs.71.26 lakhs was incurred during December 1988 to March 1991.

Although electiricity consumed in construction, maintenance and operation of the Railways is exempt from the electricity duty under the Constitution, failure to segregate dutiable and non-duitable electricity resulted in payment of Rs.14.12 lakhs and Rs.13.31 lakhs towards duty on Central and Western Railways for the years 1984-85 to 1993-94 and 1987-88 to 1988-89 respectively.

On South Central Railway, APSEB agreed to grant the benefit of lower non-industrial tariff in cases of energy utilised from High Tension supply units provided more than 51 per cent of the total load was consumed for domestic purposes. The Railway Administration took 10 to 15 months to identify only 11 such points; the delay led to loss of Rs.106.17 lakhs between August 1992 to October 1993, on account at payment at higher tariff. The Railway Board stated (January 1995) that as on date out of 67 H.T. supply points 43 had been identified for discounted tariff.

11. Inequitable Tariff for Railways

Railway Reforms Committee in its Report (1982) observed that in the matter of charging freight, the Railways treat SEBs at par with the industries. There is, therefore, no justification for SEBs to charge Railways higher rates than those charged by them from other bulk industries/consumers. The committees constituted by the Department of Power, Government of India, suggested in August 1988 that the tariff for Railway Traction should not be higher than the high tension industrial tariff for other consumers. The Public Accounts Committee (PAC) (1990-91) in its report on Railway electrification also reiterated, that the Railways should be provided electricity at reasonable rates. Despite the above recommendations, the Railways are still being charged a higher tariff as compared to the industrial sector.

On Northern Railway levy of higher tariff by UPSEB for traction power supply for Mughalsarai-Kanpur and Kanpur-Delhi sections compared to the tariff charged from large/heavy power users, burdened the Railway with extra expenditure of Rs.17.40 crores between January and December 1992. With the swichover to the National Thermal Power Corporation for traction load in Kanpur-Sahibabad (Delhi) section, the approximate savings on electric energy cost has been estimated at Rs.29.50 crores per annum.

On Western Railway the tariff levied by MPEB was higher by 12.30 per cent than that for other industries leading to additional burden of Rs.1659 lakhs on the Railway during the period 1989-90 to 1993-94.

In respect of Rajnandgaon and Panijola, because MPEB did not classify the Railways as an industrial user, South Eastern Railway paid an excess amount of Rs.63.02 lakhs on account of higher tariff between October 1992 and September 1993. In the Khurda Road Division, refusal of the Orissa State Electricity Board (OSEB) to grant the tariff rate applicable to large industries led to extra burden of Rs.23 lakhs on the Railway during 1993-94.

In Central Railway on Jabalpur Division MPEB charged the Railway as per tariff for 'General Purposes' instead of at the tariff offered to bulk industrial consumers. This resulted in an additional expenditure amounting to Rs.43 lakhs during the period from 1989-90 to 1993-94.

12. Outstanding dues

An amount of Rs.514.29 lakhs was outstanding recovery on account of electricity charges from private parties/outsiders and Government departments such as Government Railway Police, Railway Institutes, Union Offices, Post and & Telecommunications and Defence Departments for varying periods from 1987-88 onwards. This included Rs.111 lakhs due from private parties and other Government

Departments on Central Railway alone. On Eastern Railway, the party-wise break up of the outstanding amount of Rs.196.34 lakhs was not available.

On Northern Railway, Rs.18.52 lakhs was outstanding against the staff for the period from 1988-89 to 1990-91 on Ambala Division. In Delhi Division, 62 employees who were in unauthorised occupation of Railway quarters for 2 to 10 years had not paid the electricity charges.

The matter was taken up with the Railway Administration and Railway Board between June and November 1994; no reply has been received (March 1995).

(DHARAM VIR)
Deputy Comptroller and Auditor General of India

New Delhi
The 10 APRIL 1995
20 CHAITRA 1916

Countersigned

(C.G. SOMIAH)
Comptroller and Auditor General of India

New Delhi
The 10 APRIL 1995
20 CHAITRA 1916

APPENDIX
(Ref. Paragraph No.1.8)
Grand Summary of Appropriation Accounts 1993-94

(In Rupees)

Number and name of the Grant/Appropriation	Original Grant/ Appropriation	Supplementary	Final Grant/ Appropriation	Actual Expenditure	Exces (+)/ Savings (-)
1. Revenue - Railway Board (Voted)	13,98,00,000	--	13,98,00,000	13,60,09,798	(-) 37,90,202
2. Revenue - Miscellaneous Expenditure (General) (Voted)	84,09,20,000	--	84,09,20,000	73,44,72,959	(-) 10,64,47,041
3. Revenue - Working Expenses(W.E.) - General Suprintendent and Services					
Charged	96,000	--	96,000	92,530	(-) 3,470
Voted	618,53,44,000	--	618,53,44,000	603,74,03,928	(-) 14,79,40,072
4. Revenue - W.E.-Repairs and Maintenance of Permanent Way and Works					
Charged	--	4,00,000	4,00,000	3,84,787	(-) 15,213
Voted	1284,11,94,000	--	1284,11,94,000	1280,21,19,290	(-) 3,90,74,710
5. Revenue - W.E.-Repairs and Maintenance of Motive Power					
Charged	90,000	--	90,000	--	(-) 90,000
Voted	1015,06,61,000	--	1015,06,61,000	974,28,84,238	(-) 40,77,76,762
6. Revenue - W.E.-Repairs and Maintenance of Carriages and Wagons					
Charged	1,53,000	--	1,53,000	2,14,329	(+) 61,329
Voted	1381,49,29,000	--	1381,49,29,000	1406,89,74,424	(+) 25,40,45,424

(In Rupees)

Number and name of the Grant/Appropriation	Original Grant/ Appropriation	Supplementary	Final Grant/ Appropriation	Actual Expenditure	Exces (+)/ Savings (-)
7. Revenue - W.E.-Repairs and Maintenance of Plant and Equipment					
Charged	64,000	--	64,000	25,417	(-) 38,583
Voted	679,92,72,000	--	679,92,72,000	675,07,93,079	(-) 4,84,78,921
8 Revenue - W.E.-Operating Expenses - Rolling Stock and Equipments					
Charged	--	6,53,000	6,53,000	15,27,921	(+) 8,74,921
Voted	1079,01,49,000	30,00,00,000	1109,01,49,000	1144,57,75,915	(+) 35,56,26,915
9 Revenue - W.E.-Expenses Operating Expenses - Traffic					
Charged	15,00,000	--	15,00,000	4,78,920	(-) 10,21,080
Voted	2256,99,77,000	--	2256,99,77,000	2259,27,17,307	(+) 2,27,40,307
10. Revenue - W.E.- Operating Expenses - Fuel					
Charged	2,00,000	--	2,00,000	27,948	(-) 1,72,052
Voted	2756,97,81,000	--	2756,97,81,000	2652,27,45,333	(-) 104,70,35,667
11. Revenue - W.E.-Staff Staff Welfare and Amenities					
Charged	--	30,000	30,000	588	(-) 29,412
Voted	470,59,79,000	--	470,59,79,000	473,61,98,428	(+) 3,02,19,428
12. Revenue - Miscellaneous Working Expenses					
Charged	11,29,76,000	--	11,29,76,000	2,12,51,433	(-) 9,17,24,567
Voted	665,16,18,000	--	665,16,18,000	666,85,15,633	(+) 1,68,97,633

(In Rupees)

Number and name of the Grant/Appropriation	Original Grant/ Appropriation	Supplementary	Final Grant/ Appropriation	Actual Expenditure	Exces (+)/ Savings (-)
13. Revenue - W.E.- Provident Fund, Pension and other Retirement benefits					
Charged	68,82,000	--	68,82,000	9,23,538	(-) 59,58,462
Voted	1525,81,22,000	--	1525,81,22,000	1498,07,53,124	(-) 27,73,68,876
14. Revenue - Appropriation to Funds					
Voted	6104,00,00,000	--	6104,00,00,000	5190,07,69,127	(-) 913,92,30,873
15. Dividend to General Revenues					
Voted	1253,00,00,000	46,00,00,000	1299,00,00,000	1296,04,83,383	(-) 2,95,16,617
16. Assets - Acquisition, Construction and Replacement					
i) Open Line Works Revenue (Voted)	45,04,00,000	--	45,04,00,000	31,28,58,349	(-) 13,75,41,651
ii) Funds					
Charged	1,27,09,000	--	1,27,09,000	23,53,488	(-) 1,03,55,512
Voted	9018,95,41,000	1,00,000	9018,96,41,000	74670555844	(-) 1551,90,85,156
iii) Capital					
Charged	1,52,91,000	--	1,52,91,000	1,14,28,929	(-) 38,62,071
Voted	2533,96,35,000	4,00,000	2534,00,35,000	3682,83,37,680	(+) 1148,83,02,680
Grand Total					
Charged	14,99,61,000	10,83,000	15,10,44,000	3,87,09,828	(-) 11,23,34,172
Voted	32786,73,22,000	76,05,00,000	32862,78,22,000	31389,23,67,839	(-) 1473,54,54,161

ERRATA

Page No.	Line	For	Read
ii	3 from bottom	FREIGHT	WEIGHT
ii	10 from bottom	misnaming	mination
iii	3 from top	transshipment	transhipment
15	graph	82.83	82.93
25	16 from top	received	received/cleared
27	3 from bottom	Sever KOK/IOC/MG	Sevur IOC/MSB/MG
28	4 from top	January 1992	June 1992
28	7 from bottom	(subsequently revised to Rs.12.84 lakhs)	Delete
29	4 from top	Rs.28.48 lakhs	Rs.29.44 lakhs
33	18 from top	undercharge	overcharge
36	11 from bottom	----	Add - Audit verification, however, showed that only an amount of Rs.9.58 lakhs was recovered and an amount of Rs.27.01 lakhs had been waived.
37	9 from bottom	FREIGHT	WEIGHT
45	2 from top	41 35	35 43
54	10 from bottom	Rs.8.98 crores	Rs.9 crores
55	10 from bottom	Lumping	Lumding
65	5 from bottom	-	Delete
73	2 from top	November 1994	July 1994
94	Item 8	Draw Bar Coupling Testing Machines	Draw Bar/Screw Coupling Testing Machines
95	5 from bottom	Draw Bar Screw Coupling	Draw Bar/Screw Coupling
121	6 from top	Locomostives	locomotive