



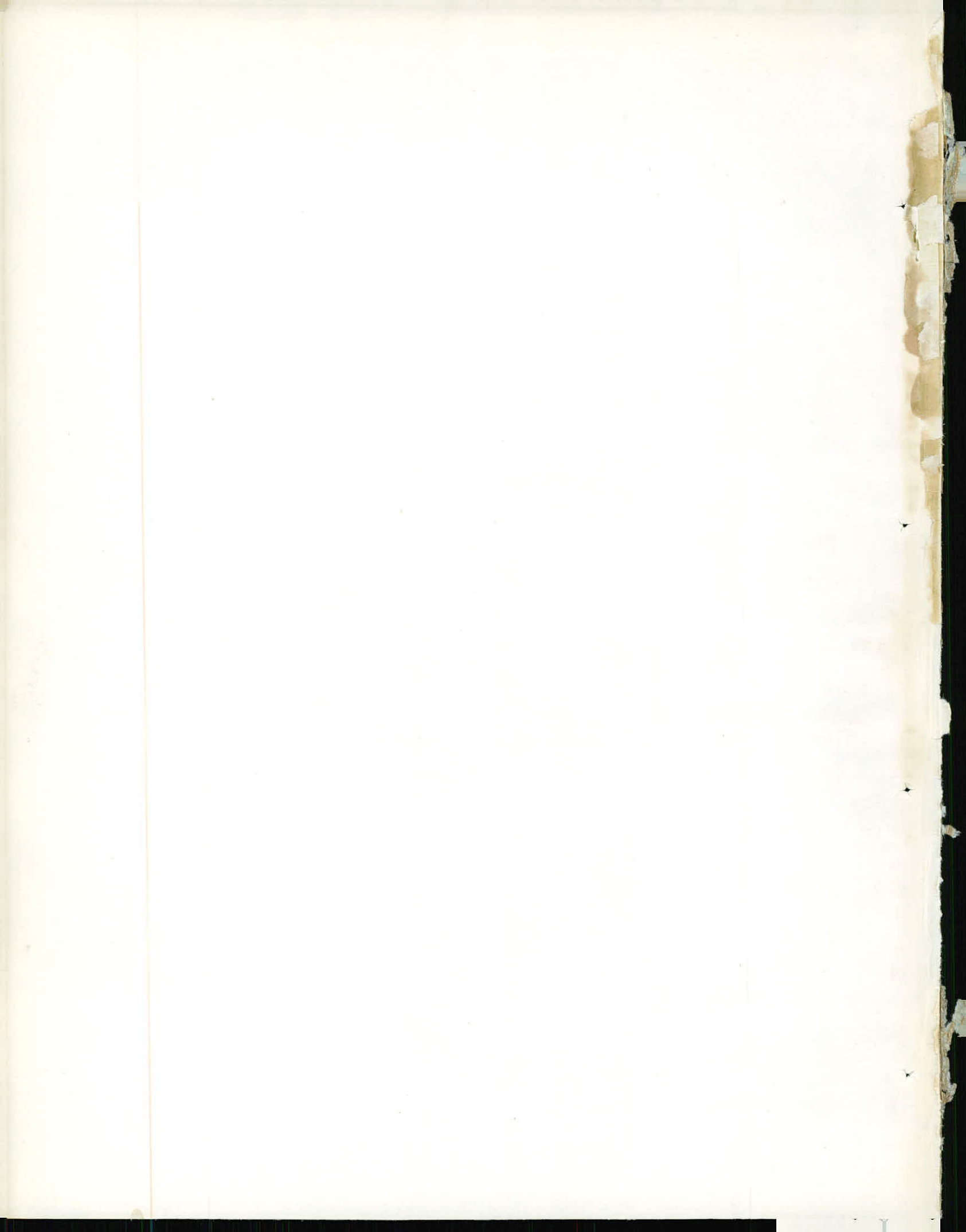
सत्यमेव जयते

**REPORT OF
THE COMPTROLLER AND AUDITOR GENERAL
OF INDIA**

FOR THE YEAR ENDED 31 MARCH 1987

NO. 3 OF 1988

UNION GOVERNMENT (RAILWAYS)







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THE COMPTROLLER AND AUDITOR GENERAL
OF INDIA**

176 APR 1988

को लोक सभा में प्रस्तुत
Laid to Lok Sabha on

FOR THE YEAR ENDED 31 MARCH 1987

NO. 3 OF 1988

176 APR 1988

को राज्य सभा में प्रस्तुत
Laid to Rajya Sabha on

UNION GOVERNMENT (RAILWAYS)

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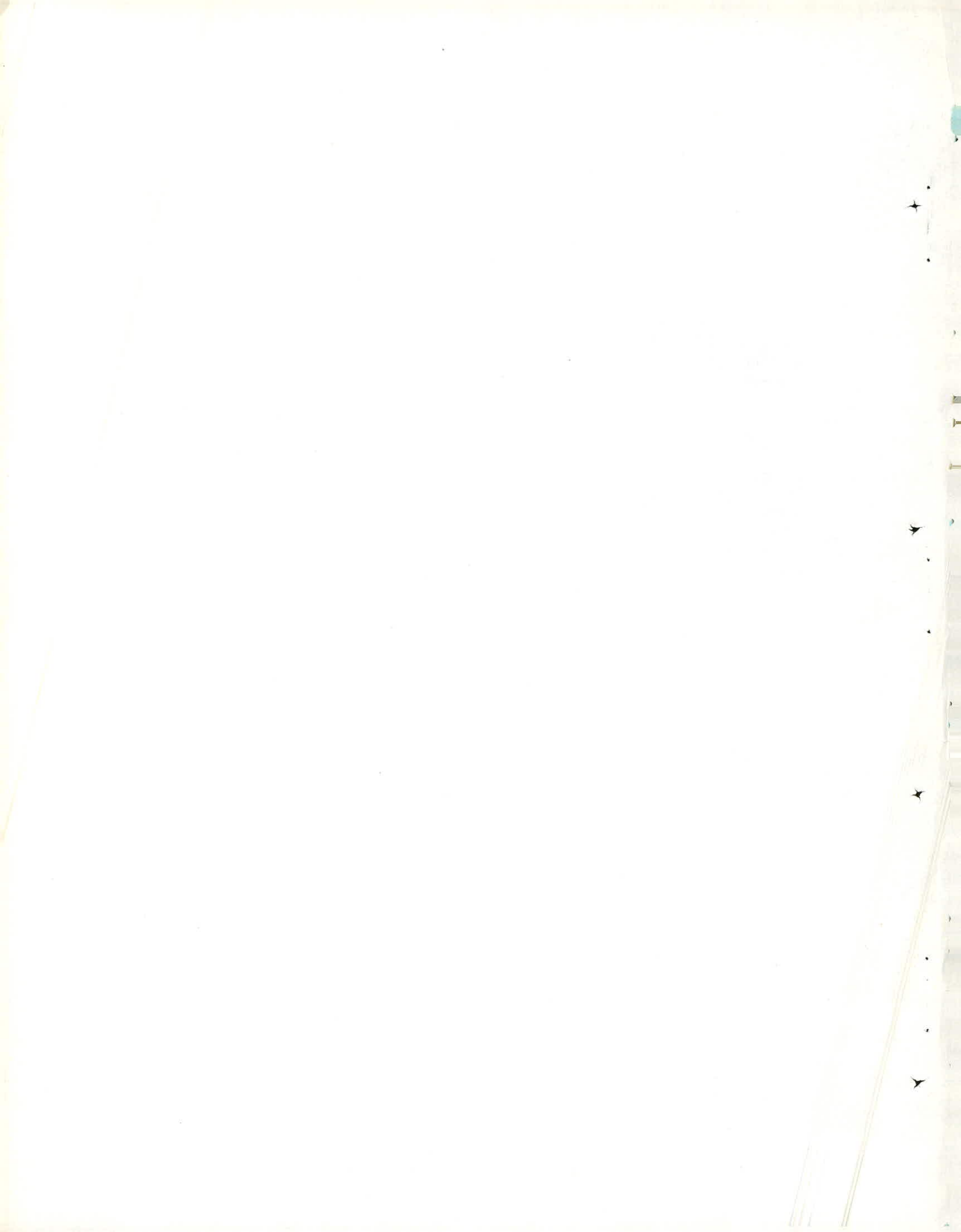
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PREFATORY REMARKS

This Report has been prepared for submission to the President under Article 151 of the Constitution. It relates mainly to matters arising from the Appropriation Accounts of Indian Railways for 1986-87 together with other points arising from audit of the financial transactions of the Railways.

The cases mentioned in this Report are among those which came to notice in the course of test audit during the year 1986-87 as well as those which had come to notice in earlier years but could not be dealt with in previous Reports; matters relating to the period subsequent to 1986-87 have also been included, wherever considered necessary. The Report includes, among others, reviews on procurement and utilisation of track materials, safety works on Indian Railways and container traffic and establishment of Inland container depots on Indian Railways, and comments on purchases, stores, works, establishment, earnings, etc.

Chapter I gives an overview of the Audit Report, bringing out the significant Audit findings.



CHAPTER I OVERVIEW

This Report contains three reviews and 33 paragraphs on individual irregularities besides comments on the financial management of Railways. Salient points emanating therefrom are:

1. Financial Results

(i) The net surplus for the year 1986-87 was Rs.101.99 crores against Rs.69 crores anticipated in the Budget.
(Para 2.1)

(ii) Indebtedness of Railways to the General Revenues at the end of 1986-87 was Rs.837.28 crores which comprised loans from General Revenues (348.17 crores) and deferred dividend (Rs.489.11 crores) kept outside the Railways Accounts.
(Para 2.2)

(iii) Dividend of Rs.578.85 crores was paid to the General Revenues for 1986-87 but the Railways obtained subsidy of Rs.143.90 crores resulting in effective rate of return of 4.19 per cent only.
(Para 2.1.4)

(iv) Operating ratio which is an index of profitability of railway operations showed a deterioration during the year.
(Para 2.8)

(v) Productivity in terms of total traffic tonne kilometres rose by 43 per cent between 1977-78 and 1986-87 though the capital-at-

charge had recorded 116 per cent increase over the same period.
(Para 2.9)

(vi) As compared to the approved Plan, the Railways spent during the year more on new assets than on renewals and replacements.
(Para 2.10.2)

(vii) Excesses of Rs.149.13 crores under four voted grants and Rs.16,817 under charged Appropriation require Parliamentary regularisation.
(Paras 2.11.4 and 2.11.5)

2. Procurement and utilisation of track materials

- The arrears in track renewals were 13033 km at the end of 1986-87 leading to imposition of speed restriction on 2291 km. of track in 1986-87.

- The supply of broad gauge rails from the only indigenous source of Bhilai steel plant was to the extent of 57 per cent to 88 per cent of the requirements. The indigenous production of metre gauge rails had stopped in April 1982. Consequently, Railways were obliged to resort to costlier imports.

- In the import of rails, Railway Board failed to keep in view the specification, economics of importing through nearest port, market trend, economics of obtaining longer length rails, etc., leading to avoidable extra expenditure of Rs. 135 lakhs in a few cases reviewed by Audit.

- In the procurement of sleepers, non-utilisation of available capacity for manufacture of concrete sleepers led to larger procurement of cast iron sleepers the use of which was costlier in the long run.

involving Railways share of Rs.1859 lakhs had not been completed due to delays in completion of connected works of the State Government/local bodies.

(Para 3.2)

- The performance of Allahabad unit set up with foreign collaboration for manufacture of concrete sleepers was poor in comparison with that of Khalispur unit set up with indigenous technology.

4. Container traffic and establishment of Inland Container Depots on Indian Railways

- Only 75 per cent of the concrete sleepers purchased between April 1983 and March 1987 were laid in track.

- The Railways introduced traffic in International Standards Organisation (ISO) containers in 1981-82.

- There was excessive procurement of cast iron sleepers and also extra expenditure of Rs.295 lakhs on account of failure to assess the requirements properly and failure to avail of a rebate offered by some of the firms.

(Para 3.1)

- Against a traffic potential of 79,200 and 94,000 ISO containers, the Railways moved only 21,614 and 32,422 ISO containers in 1985-86 and 1986-87 respectively.

- Want of adequate investment and delays in providing full fledged facilities at the Inland Container Depots limited the handling capacity of the ICDs resulting in diversion of traffic to road.

Review of Safety Works

- The trend of accidents showed that the incidence of accidents measured in terms of accidents per million kilometres rose from 10.54 in 1970-71 to 26.17 in 1985-86.

- By better utilisation of existing BFR wagons and deploying them for container traffic, the Railways could have earned additional revenue.

- The progress of works such as track circuiting, provision of axle counters, panel interlocking at stations, auxiliary warning system, last vehicle check device, etc sanctioned as technological improvement and aids to safety was slow and the investment on these works was idling because of slow progress and non-completion.

- Operational inefficiencies and lack of planning and co-ordination with Port Trusts resulted in avoidable detentions to containers.

- No targets had been fixed for inspections of safety measures.

- The performance of domestic container service had not shown improvement and continued to suffer from shortcomings such as, excessive transit time, detention to containers, poor outage of road units, though the Railway Board had informed the Public Accounts Committee in April 1985 that measures were being taken to improve the services. Small capacity containers acquired at a cost of

- Road over/under bridges sanctioned in 1983-84 and earlier,

Rs.2.06 crores were surplus to requirement. The financial return on the service also declined steeply.

(Para 3.3)

5. Works, Purchase and Stores

(i) In procurement of air brakes delays in finalisation of tenders, and excessive ordering of air brakes caused avoidable payment of higher rates leading to extra expenditure of Rs.1.98 crores.

(Para 4.1)

(ii) Purchase of cartridge tapered roller bearings involved concessions amounting to Rs.142.5 lakhs granted to a firm after award of contract in respect of foreign exchange content, reimbursement of countervailing duty etc.

(Para 4.2)

(iii) Non-acceptance of a lower offer for supply of wheel sets proved injudicious, resulting in avoidable expenditure of Rs.1.30 crores.

(Para 4.3)

(iv) Manufacture of Mark II Tower Wagons with known deficiencies continues because of delay in development of an improved Mark III type.

(Para 4.6)

(v) Mismatch in the ordering and manufacture of coaches and motors led to idling of coaches valued at Rs.1.26 crores, intended to provide relief in suburban services of Southern Railway.

(Para 4.7)

(vi) Failure of inspection of the mounting of axle boxes on wagons under manufacture caused an accident which resulted in loss of Rs.71.14 lakhs.

(Para 4.8)

(vii) Import of 30 sets of rewinding kits valued at Rs.32 lakhs for repair of traction motors of diesel engines proved useless because of defective design, and also costlier than indigenous procurement.

(Para 4.10)

(viii) Two projects on South Central Railway, namely, Development of a goods complex at Sanatnagar and construction of by-pass line between Moula Ali and Sanatnagar recorded cost over runs of Rs.0.96 crore and Rs.2.68 crores and time over runs of over four years and three years respectively. A review revealed deficiencies in planning and delays in acquisition of land and consequent additional expenditure of Rs.219.31 lakhs on land and earth work.

(Para 4.14)

(ix) Delay in execution of a contentious agreement with Tamil Nadu Electricity Board resulted in payment of Rs.3.40 crores as penalty charges to the Board.

(Para 4.21)

(x) Review of the working of exchange traffic with Port Trust Railways of Mormugao, Madras, Bombay and Calcutta ports disclosed significant losses of Rs.281.65 lakhs due to non-revision of wagon hire charges and demurrage charges by Port Railways, non-recovery of cost of repairs/damages to wagons etc. from the ports by the Railways.

(Para 4.22)

6. Earnings

(i) Incorrect charging of passenger fares on longer routes on the Northern Railway resulted in loss of revenue of Rs.3.94 lakhs.

(Para 5.1)

(ii) Undercharges of freight amounted to Rs.13.76 lakhs due to short realisation of freight charges and non-levy of 25 per cent extra charges on fish and perishable traffic on the Northern, South Central, Central and Southern Railways.
(Para 5.2)

(iii) Non-rationalisation of longer route for purposes of charging freight resulted in loss of earnings of Rs.7.78 lakhs per annum on the South Central Railway.
(Para 5.3)

(iv) Injudicious imposition of ban on booking traffic by mobile booking service on Southern Railway resulted in loss of traffic of Rs.20 lakhs per annum.
(Para 5.5)

(v) Dues over Rs.50 crores were pending recovery from Gujarat State Electricity Board on account of lower freight rates collected on coal wagons and dishonoured credit notes.
(Para 5.8)

CHAPTER II

RAILWAYS FINANCIAL MANAGEMENT AND AUDIT

Financial Results

2.1.1 The financial results of Railways for the year 1986-87 showed a surplus of Rs.101.99 crores, exceeding by 48 per cent, the surplus of Rs.69 crores anticipated at the Budget stage. The actual revenues exceeded the budgeted receipts by Rs.686.39 crores, while the rise in expenditure above the budgeted level was Rs.664.55 crores.

2.1.2 The Ministry of Railways had budgeted for transportation of 267 million tonnes of originating revenue earning goods and 3632 million passenger traffic. Keeping in view the traffic that materialised during April to December 1986, they reassessed the originating goods and the passenger traffic at 272 million tonnes and 3621 millions respectively at the Revised Estimates stage. The actual materialisation of goods traffic was to the extent of 277.75 million tonnes and 3604 million passengers. There was some upward adjustment of freight rates with effect from 1 December 1986 and also increases in passenger fares and parcel and luggage rates during the year. As a result, the actual revenue receipts exceeded the Budget Estimates by Rs.686.39 crores. This increase was correctly anticipated at the Revised Estimates stage.

2.1.3 The Budget Estimate of revenue expenditure was Rs.6337.69 crores and the Revised Estimate was Rs.7102.02 crores. Increased provision of Rs.764.33 crores (representing 12.06 per cent of the Budget Estimate) was made at the Revised Estimates

stage mainly on account of increase in salaries and wages, contractual payments, cost of diesel oil and electricity, as well as towards rise in traffic output. But the actual revenue expenditure was less than the Revised Estimate by Rs.99.78 crores. There was thus overestimation of funds required at the Revised Estimates stage.

2.1.4 Despite the increase in surplus, the Dividend of Rs.578.85 crores paid to General Revenues by the Railways during the year was less than Rs.590 crores, provided at the Budget stage. This formed 4.19 per cent return on the capital-at-charge of Rs.10373.10 crores, after taking into account subsidy of Rs.143.90 crores obtained from General Revenues.

2.1.5 Pending submission of detailed memoranda by the Ministry of Railways, the Railway Convention Committee (1985) recommended in February 1986 that the existing rates of dividend of 6 per cent on the adjusted capital invested in the Railways up to 31 March 1980 and 6.5 per cent on capital invested thereafter may be adopted while framing Revised Estimates for 1985-86 and the Budget Estimates for 1986-87. The Committee, in its report submitted in February 1987, regretted that though the first two years of the Seventh Five Year Plan period were nearly over the Ministry of Railways had not been able to submit a memorandum containing proposals for payment of Dividend to the General Revenues for the entire quinquennium 1985-90. The memorandum was submitted by the Ministry of Railways only in July 1987.

The accepted recommendations of the Committee thereon, to be given in future, will have to be applied to the years 1985-86 and 1986-87, the accounts of which have already been closed and certified by the Comptroller and Auditor General of India.

Indebtedness of Railways

2.2.1 The Railways have not been able to discharge in full their liability for payment of Dividend to General Revenues and have accumulated a deferred liability to pay the short-falls. This liability increased from Rs.428.4 crores as on 31 March 1986 to Rs.489.11 crores as on 31 March 1987.

2.2.2 The Railways have also not been able to contribute adequately to the Development Fund from which unremunerative works, amenities to Railway users and labour welfare works are financed. During the year under Report, the Railways obtained a loan of Rs.11.80 crores for financing the fund. The indebtedness of Railways on this account stood at Rs.348.17 crores at the end of March 1987.

2.2.3 The total indebtedness of the Railways at the end of March 1987 amounting to Rs.837.28 crores is outside the accounts (including Balance Sheet) maintained by the Railways.

Comparative position

2.3 The surplus of Rs.101.99 crores in the current year is less than the surplus of Rs.178.83 crores in the earlier year. In the two preceding years the Railways incurred losses. More details including salient indicators of financial results are given in Annexure I for the five years from 1982-83 onwards.

Railway Funds

2.4.1 Development Fund

This fund is financed from appropriation out of surplus and/or loans from

General Revenues and used to meet expenditure on works relating to amenities for all users of railway transport, labour welfare works and unremunerative operating improvement works. It is also used for paying interest on the loans credited to the Fund. During 1986-87 out of Rs.113.96 crores withdrawn from the fund, the component for financing development works was only Rs.84.03 crores and the balance, or 26 per cent of the expenditure from the fund, was used for interest payment. The balance in the fund as on 31 March 1987 was Rs.0.1 lakh. No repayment of loans to General Revenues has been made in the last 19 years, ever since the first loan was taken in 1967-68.

2.4.2 Depreciation Reserve Fund

The appropriation from Revenue to this fund was stepped up from Rs.920 crores in 1985-86 to Rs.1250 crores in 1986-87. The total withdrawals from the fund during the year was Rs.1175.29 crores consisting of Rs.691.02 crores for track renewals, Rs.477 crores for replacement/renewal of rolling stock and the balance for replacement of other assets. The fund closed with a balance of Rs.240.35 crores at the end of March 1987 as compared to Rs.144.21 crores at the end of March 1986. The balance in the fund constituted 1.81 per cent of the value of Block assets of Rs.13306.87 crores and represented about 20 per cent of the replacement expenditure during 1986-87.

2.4.3 Pension Fund

The fund constituted in 1964 for meeting expenditure on pensionary benefits of retiring railway employees, was to be financed on the basis of actuarial calculations, so that the fund has adequate balances to meet the precisely estimated liability on this account. However, after 1974, there has been no actuarial calculation and the annual contribution to the fund continued to be with reference to the trend of actual withdrawals from the fund. Due to substantial liberalisation of

pension scheme in recent years, the withdrawals from the fund had been more than the accruals to the fund in the last three years.

There was net depletion of Rs.68.37 crores in the fund balances during 1985-86 and 1986-87 due to inability of Railways to match the liabilities by sufficient appropriations. The balance in this fund as on 31 March 1987 was only Rs.363.89 crores, equivalent to 78 per cent of the expenditure of Rs.464.66 crores on this account during 1986-87.

2.4.4 Accident Compensation, Safety and Passenger Amenities Fund

The fund was set up on 1 April 1974 to meet the payment necessitated by accident compensation and expenditure on works of passenger amenities and operational improvements connected with safety of travel. During 1986-87, withdrawals from the fund were Rs.35.54 crores as compared to Rs.29.12 crores during 1985-86 indicating increased expenditure on safety and passenger amenities works. The fund closed with reduced balance of Rs.8.47 crores at the end of 1986-87 as against Rs.12.44 crores at the end of 1985-86. This balance as on 31 March 1987 is equivalent to 24 per cent of the expenditure during the year.

Passenger Earnings

2.5.1 The Budget for 1986-87 envisaged a growth of 4 to 5 per cent in suburban and non-suburban passenger traffic over the previous year and provided for a modest increase (5 to 7.5 per cent) in the second class Mail and Express passenger fares and an increase of 12.5 per cent in the fares of upper classes effective from 1 April 1986, without change in the fares for second class ordinary travel or for season tickets. To meet a part of the steep rise in working expenses not anticipated or provided at Budget stage, an increase in parcels and luggage rates and in the rates for haulage of Postal vans was effected from 1 November 1986.

2.5.2 Against an anticipated additional revenue of Rs.76 crores as a result of adjustment of fares etc., the actuals exceeded the Budget Estimates by only Rs.64.96 crores (3.5 per cent). The revision of parcels and luggage rates referred to above led to a substantial increase (44.6 per cent) in 'other coaching earnings'.

2.5.3 The five per cent growth in passenger traffic anticipated by the Railways proved correct. There was increased passenger traffic on seven Railways but the Northeast Frontier and South Central Railways recorded a fall. Further details are given in Table 1.

Table 1

Railway	Passenger Traffic in millions		Percentage variation
	1985-86	1986-87	
Central	846.52	888.81	5.0
Eastern	454.91	494.44	8.7
Northern	368.94	374.18	1.4
North Eastern	158.18	168.11	6.3
Northeast Frontier	31.41	31.06	-1.1
Southern	283.18	322.33	13.8
South Central	150.25	145.41	-3.2
South Eastern	164.37	173.95	5.0
Western	975.70	1005.97	3.1
Total:	3433.46	3604.26	5.0

Goods Earnings

2.6.1 During the course of the year, an upward revision of freight rates for all commodities was made in the form of increase ranging between 22 and 28 per cent in the taper of class rates of all commodities from 1 December 1986 to meet the anticipated increase in working expenses. Due to this revision as well as due to the originating goods traffic exceeding the budget anticipations by 10.75 million tonnes, the actual goods earnings proved to be Rs.507.24 crores more than Budget Estimate of Rs.4626 crores.

The increase of 10.75 million tonnes in originating traffic was mainly under food grains (7.01 million tonnes), movement of which was sponsored by the Food Corporation of India. This commodity is charged the lowest freight class rates and therefore the increase in this traffic would not have led to higher profitability.

The quantum of originating traffic (37.43 million tonnes) under 'Other Goods', which cover mostly high rated goods moving in wagon loads, smalls and in containers, was more than that budgeted by 3.43 million tonnes. But the target (34 million tonnes) as well as the actuals (37.43 million tonnes) were still much below the level of 43.26 million tonnes loaded in 1981-82.

To sum up, the movement of low rated commodities increased while traffic in the high rated commodities had not shown the increase necessary to compensate the deficit attributable to the movement of the former.

2.6.2 During the year the originating loading of total traffic (Revenue Earning) had improved on all the Railways except Southern Railway whose loading performance remained at the level attained in the previous year. However, the loading of 'other goods', which yields high profit margin, declined during the year reflecting poorer performance on the Central, Southern, South Central and South Eastern Railways. More details are given in Table 2.

2.6.3 The unrealised Railway earnings of all types rose from Rs.222.79 crores at the end of March 1986 to Rs.226.63 crores at the end of March 1987. Freight outstanding (including that on consignments yet to be received and delivered) rose by Rs.9.95 crores during the year. Major portion of the freight outstanding of Rs.142.76 crores related to Central (Rs.32.40 crores), Eastern (Rs.17.95 crores) and Northern (Rs.39.52 crores) Railways. Factors such as large scale diversion of coal wagons to stations or power stations other than those originally mentioned

Table 2

Railway	(In thousand tonnes)			
	Total Traffic		"Other Goods"	
	1985-86	1986-87	1985-86	1986-87
Central	24359	25858	4815	4567
Eastern	54835	59873	4343	4522
Northern	23419	26774	5361	5096
North Eastern	3755	4305	2130	2308
Northeast Frontier	4559	5091	1209	1237
Southern	13904	13910	2852	2383
South Central	26058	27749	3247	2972
South Eastern	84810	89559	6159	5891
Western	22849	24634	8104	8456
Total:	258548	277753	38220	37432

in the invoices, non-payment of freight by parties due to dispute relating to lesser weight of coal in BOXN wagons, payment of freight at train-load rates instead of wagon-load rates claimed by the Railways etc. mainly contributed to these outstandings.

2.6.4 Out of Rs.235.58 crores of demurrage/wharfage charges due the Railways recovered Rs.109.64 crores and waived Rs.86.69 crores leaving a balance of Rs.39.25 crores as at the end of 1986-87.

Revenue Expenditure

2.7 The increase in Revenue Expenditure to Rs.7002.24 crores from

Rs.5904.80 crores in the previous year was mainly due to increase in appropriation to Railway Funds viz., Depreciation Reserve Fund (Rs.330.00 crores), Pension Fund (Rs.89 crores) and Accident Compensation, Safety and Passenger Amenities Fund (Rs.3.48 crores) and more expenditure (Rs.657.42 crores) on Ordinary Working Expenses. The increase in working expenses was due to increase in salaries and allowances, consequent on introduction of new scales of pay from 1 January 1986, as well as increase in the traffic output, prices of diesel etc. These working expenses have risen by 14 per cent per annum in just two years as detailed in Table 3.

Table 3

Grant	1984-85 (Rs. in crores)	1985-86	1986-87	Percentage increase in 1985-86	Percentage increase in 1986-87
3 - General Superintendence and Services	232.61	257.71	312.74	10.79	21.35
4 - Repairs and maintenance of permanent way and works	497.04	557.82	643.25	12.22	15.31
5 - Repairs and maintenance of Motive Power	358.85	433.36	506.53	20.76	16.88
6 - Repairs and maintenance of Carriage and Wagons	504.11	571.32	660.27	13.33	15.57
7 - Repairs and maintenance of Plant and Equipment	251.80	316.90	356.30	25.85	12.43
8 - Operating Expenses-Rolling Stock and Equipment	409.00	454.46	518.60	11.11	14.11
9 - Operating Expenses-Traffic	481.63	536.59	630.31	11.41	17.47

10 - Operating Expenses-Fuel	959.52	1065.81	1183.35	11.08	11.03
11 - Staff Welfare and Amenities	166.15	188.87	221.91	13.67	17.49
12 - Working Expenses including Suspense - excluding Accident Compensation	200.86	251.20	258.53	25.06	2.92
13 - Provident Fund, Pension Fund and Other retirement benefits (net)	9.60	9.10	8.77	(-)5.21	(-)3.63
Total Ordinary Working Expenses (Grants No.3 to 13 - including Suspense)	4071.17	4643.14	5300.56	14.05	14.16

Table 4

Railway	1982-83	1983-84	1984-85	1985-86	1986-87
Central	71.9	76.3	79.6	76.1	76.83
Eastern	109.9	114.3	119.0	101.1	105.9
Northern	83.0	89.0	92.9	86.6	83.63
North Eastern	148.7	174.4	187.4	166.9	171.76
Northeast Frontier	161.8	184.4	209.1	195.8	189.23
Southern	118.6	123.2	124.4	119.6	130.08
South Central	82.4	89.9	85.9	82.1	89.52
South Eastern	73.5	77.0	76.8	72.9	75.0
Western	77.2	78.5	82.7	79.6	80.75
All Railways	88.3	93.5	96.3	90.6	92.20

Operating Ratio

2.8 The operating ratio worked out for each Railway is the percentage of working expenses to attributable earnings. It is an index of profitability of railway operations and a ratio above one hundred indicates losses. The overall ratio deteriorated from 88.3 in 1982-83 to 92.20 in 1986-87 due to faster growth of revenue expenditure as compared to that of revenue receipts. Out of nine Railways five showed profits, while the others continuously

incurred losses. The trend for last five years is given in the Table 4.

Productivity and the Bonus linked to it

2.9 The revenue expenditure in 1986-87 included Rs.247.95 crores paid on account of Productivity Linked Bonus for 1985-86 representing as ex-gratia payment equal to wages for 42 days.

The total traffic tonne kilometres covering both coaching and goods

operation is a measure of overall annual output. It increased from 1,59,996 in 1977-78 to 2,28,777 in 1986-87 representing an increase of 43 per cent. In the same period, the capital-at-charge increased from Rs.4797 crores to Rs.10373 crores i.e., by 116 per cent. It, therefore, appeared that efficiency in utilisation of capital assets like track, rolling stock, etc. has gone down during this period.

Plan (Capital) Expenditure

2.10.1 The year under review (1986-87) was the second year of the Seventh Five Year Plan (1985-90) at the end of which the Railways were anticipated to develop requisite capacity to meet a projected traffic of 340 million tonnes of originating traffic. The Railways handled only 277.75 million tonnes by 1986-87.

2.10.2 During the year, the Plan (Capital) expenditure of Railways was Rs.2697.06 crores as against the approved outlay of Rs.2650 crores provided in the Budget. An analysis of the expenditure showed that Railways spent more on acquisition of new assets out of borrowed capital from General Revenues, but less on renewals and replacements charged to Depreciation Reserve Fund. The details are given in Table 5.

Significant shortfalls occurred in

- Track renewals for which only Rs.691.02 crores were spent as against provision of Rs.710.57 crores. The actual coverage was 3978 km as against target of 3800 km.
- Electrification for which the funds utilised during 1986-87 were only to the extent of Rs.177.88 crores against the allotment of Rs.180.41 crores. Against the physical target of 730 km of energisation for this year, the achievement was only 573 km.

Table 5

Sources of finance	(Rs. in crores)	
	Budget Estimate 1986-87	Actual Expenditure 1986-87
1. Borrowed Capital from General Revenues	1280	1379.41
2. Internal Resources		
(i) Depreciation Reserve Fund	1250	1175.29
(ii) Development Fund	60	84.03
(iii) Accident Compensation Safety and Passenger Amenities Fund	35	34.90
(iv) Railway Revenue	25	23.43
Total:	1370	1317.65
Grand Total:	2650	2697.06

Budgetary Control

2.11.1 The Grants and Appropriations approved by Parliament for Railway expenditure are for gross expenditure, excluding recoveries which are adjusted in the accounts of revenue and capital expenditure.

2.11.2 The number of Demands voted during the year was sixteen and the number of charged Appropriations thirteen. The number of supplementary demands voted was 21 and the number of supplementary appropriations five.

2.11.3 During the year the total actual gross expenditure exceeded the amount approved by the Parliament. However, the order of excess was lower

in voted grants. The position of Voted Grants and Charged Appropriations of 1986-87 together with the Supplementary Grants/Appropriations obtained and expenditure incurred is given in Table 6.

Excess over Grants

2.11.4 The aggregate excess of Rs.6.93 crores in the voted grants during the year was the net result of excess of Rs.115.60 crores under 4 grants and saving of Rs.108.67 crores under 12 grants. However, the excess requiring regularisation, under Article 115 of the Constitution was Rs.149,13,02,189. Grant-wise analysis of excess is given in succeeding paragraphs.

Grant No.5 - Repairs and Maintenance of Motive Power

Original Grant	Rs.431,66,98,000
Supplementary Grant	Rs. 89,38,68,000
Final Grant	Rs.521,05,66,000
Actual Expenditure	Rs.527,13,23,302
Excess	Rs. 6,07,57,302
Percentage	1.16

Two supplementary grants for Rs.43.75 crores and Rs.45.64 crores were obtained in November 1986 and March 1987 respectively to meet mainly increased expenditure on salary and allowances as a result of implementa-

tion of the recommendations of the Fourth Pay Commission and payment of dearness allowance (Rs.40.89 crores), payment of higher Productivity Linked Bonus (Rs.2.86 crores), increase in cost of materials (Rs.30.94 crores) and other expenses (Rs.7.89 crores). The supplementary grants proved inadequate to the extent of Rs.6.08 crores.

The excess of Rs.6.08 crores occurred mainly under the sub-heads repairs and maintenance of Diesel (Rs.5.12 crores) and Electric (Rs.1.34 crores) Locomotives offset by aggregate of savings and excesses under other sub-heads of the grant (net Rs.0.39 crore). The excess of Rs.5.12 crores on repairs to diesel locomotives was attributed to increase in cost of materials and occurred on the North Eastern (Rs.2.03 crores), Northeast Frontier (Rs.2.04 crores) and South Eastern (Rs.2.04 crores) Railways offset by minor savings.

Grant No.13 - Provident Fund, Pension and other retirement benefits

Original Grant	Rs.349,20,84,000
Supplementary Grant	Rs. 71,22,07,000
Final Grant	Rs.420,42,91,000
Actual Expenditure	Rs.474,10,32,390
Excess	Rs. 53,67,41,390
Percentage	12.77

Table 6

Particulars	(Rs. in crores)			
	Voted (1985-86)		Charged (1986-87)	
1. Original Grants/ Appropriations	10680.20	19.80	12869.72	16.63
2. Supplementary Grants/Appropriations	719.65	0.88	968.97	0.32
3. Total Grants/ Appropriations	11399.85	20.68	13838.69	16.95
4. Total Disbursement	11485.62	10.16	13845.62	7.63
5. Savings(-)/Excess	85.77	-10.52	6.93	- 9.32
6. Percentage of Excess/Savings	0.75	50.87	0.05	54.99

A Supplementary Grant of Rs.71.22 crores was obtained in March 1987 for more payment of superannuation and Retiring pensions, Commutation pensions, Family pensions and Death-cum-Retirement Gratuity due to steady increase in the number of Railway employees opting for pensions and also increase in the rates of relief to pensioners. The supplementary grant proved to be grossly inadequate.

The excess of Rs.53.67 crores was mainly under the sub-heads (a) superannuation and retiring pension (Rs.33.33 crores), (b) commuted pension (Rs.13.43 crores), (c) Family pension (Rs.4.58 crores) and (d) Death-cum-Retirement Gratuity (Rs.4.50 crores) partly offset by aggregate of excesses and savings under other sub-heads.

The excess was attributed to more pension cases settled than anticipated, increase in pension cases, receipt of debits from Civil Accounts Offices through Reserve Bank of India during February and March 1987, and arrear payments consequent on restoration of commuted pension after fifteen years of retirement.

Northern Railway accounted for the maximum excess under sub-heads (a) Superannuation and retiring pension - Rs.18.26 crores (60.14 per cent) and (b) Commuted pension - Rs.3.24 crores (25.94 per cent) over their final allotment. The Eastern Railway recorded excess of Rs. 6.46 crores (15.56 per cent) and Rs.4.91 crores (Rs.36.18 per cent) respectively under these sub-heads.

The North Eastern Railway received a total debit of Rs.19.48 crores from other Accounts Offices responsible for paying pension to retired Railway employees. However, this Railway retained the amount under a suspense head at the end of the year without transferring it to final heads and including it in the expenditure discussed above. If this payment is taken into account the excess in this grant would have been Rs.20.01 crores as against Rs.0.53 crore shown.

Grant No.14 - Appropriation to Funds

Original Grant	Rs.16,35,00,00,000
Supplementary Grant	Rs. 70,00,00,000
Final Grant	Rs.17,05,00,00,000
Actual Expenditure	Rs.17,36,91,17,640
Excess	Rs. 31,91,17,640
Percentage	1.87

Appropriation to funds was estimated in the Budget at Rs.1635.00 crores. A Supplementary Grant of Rs.70.00 crores was obtained in November 1986 for appropriation from Revenue to Pension Fund to meet the expenditure chargeable to this fund on account of increased Pensionary liabilities.

The actual appropriation was more by Rs.31.91 crores than final grant of Rs.1705.00 crores. It was more due to Appropriation to Development Fund as a result of the actual surplus turning out to be Rs.101.99 crores far in excess of Rs.69 crores anticipated at the Budget Estimates stage and Rs.11 crores in the Revised Estimates.

Grant No.16 - Assets - Acquisition, Construction and Replacement

The original grant, supplementary grant and actual expenditure were as shown in Table 7.

Supplementary grants of Rs.104.05 crores were obtained in November 1986 (Rs.0.42 crore) and March 1987 (Rs.103.63 crores) for meeting increased expenditure under 'Inventories', 'Rolling Stock', 'Computerisation', and 'Investment in Indian Railway Finance Corporation'.

Though the overall excess is only Rs.23.95 crores, the excess requiring formal regularisation is Rs.57,46,85,857 under Capital, as the Ministry of Railways is not authorised to reappropriate funds between the three sources of financing indicated above.

An analysis of the excess in some components offset by savings in others is given below.

(i) Rolling stock (excess Rs.32.54 crores)

The excess of Rs.32.54 crores was caused mainly due to more adjustment of debits in respect of bulk order items of rolling stock and spares procured under the contracts finalised by the Railway Board centrally, mainly due to non-assessment realistically of the debits anticipated to be adjusted against the Railways with reference to the delivery schedules and allotment of different types of rolling stock procured by the Railway Board.

(ii) Track Renewals (excess Rs.9.68 crores)

The excess of Rs.9.68 crores is attributed to more expenditure on procurement of track materials and accelerated progress of works on the Eastern, Northeast Frontier, Southern, South Central and North Eastern Railways. While the South Central Railway, surrendered an amount of Rs.2.21 crores injudiciously, resulting in excess of Rs.1.68 crores on that Railway, the South Eastern Railway could not utilise the final allotment (Rs.95 crores) to the extent of Rs.9.4 crores.

(iii) Doubling (excess Rs.6.03 crores)

The excess occurred mainly on the Central (Rs.2.99 crores), Northeast Frontier (Rs.1.91 crores) and South Central (Rs.1.60 crores) Railways due to receipt of track materials and more progress of works.

(iv) New lines (excess Rs.5.59 crores)

The excess was due to speedier progress and receipt of more debits towards permanent way materials and other stores than anticipated for sanctioned new line projects mainly on the South Eastern, South Central and Northeast Frontier Railways.

(v) Manufacture suspense (excess Rs.4.27 crores)

The excess arose due to more drawal of stores from stock and direct purchases of stores on some of the Railways notably Eastern, South Eastern Railways, Chittaranjan Locomotive Works, and Integral Coach Factory. The Eastern Railway recorded the maximum excess of Rs.9.93 crores followed by South Eastern Railway (Rs.3.36 crores), CLW (Rs.2.74 crores) and ICF (Rs.1.95 crores).

Table 7

	Revenue	Capital	Funds	Total (Rupees)
Original Grant	24,99,50,000	38,84,12,85,000	14,81,74,50,000	53,90,86,85,000
Supplementary Grant	--	1,04,04,68,000	--	1,04,04,68,000
Final Grant	24,99,50,000	39,88,17,53,000	14,81,74,50,000	54,94,91,53,000
Actual Expenditure	23,46,64,447	40,45,64,38,857	14,49,75,00,278	55,18,86,03,582
Excess (+) Savings(-)	(-) 1,52,85,553	(+) 57,46,85,857	(-) 31,99,49,722	(+) 23,94,50,582

(vi) Stores Suspense (saving Rs.19.76 crores)

The saving was attributed to less receipt of debits than anticipated on purchase of general purpose stores, coal, non-receipt of supplementary bills for increase in cost of coal, coke, fuel oil etc. The largest saving occurred on Northeast Frontier Railway (Rs.11.46 crores) followed by Central (Rs.10.36 crores), Western (Rs.4.65 crores) and South Central (Rs.3.07 crores) Railways.

(vii) Miscellaneous Advances (saving Rs.2.81 crores)

The saving was mainly due to adjustment of less debits than anticipated. The largest saving occurred on Western Railway (Rs. 2.00 crores) followed by Central Railway (Rs.0.87 crore).

2.11.5 Excess over Appropriations

An excess of Rs.16,817 attributable to minor causes requires regularisation under Article 115 of the Constitution, as detailed below.

Appropriation No.8 - Operating Expenses - Rolling Stock and equipment

Final Appropriation	Rs. 6,53,000
Actual expenditure	Rs. 6,69,817
Excess	Rs. 16,817
percentage	2.58

2.11.6 Savings

In 12 grants, the actual expenditure amounted to Rs.5588.62 crores against the provision of Rs.5697.29 crores leading to a saving of Rs.108.67 crores or 1.91 per cent of the final provision as shown in Table 8.

Table 8

Statement showing savings in Grants - 1986-87

Number and Name of the Grant	Original Grant	Supplementary Grant	Final Grant (Rupees	Actual Expenditure in crores)	Savings	Per cent
1. Railway Board	6.47	0.70	7.17	6.63	0.54	7.53
2. Miscellaneous Expenditure (General)	40.82	-	40.82	37.45	3.37	8.26
3. General Superintendence and Services	267.41	55.85	323.26	314.22	9.04	2.80
4. Repairs and Maintenance of Permanent Way and Works	570.18	90.22	660.40	651.95	8.45	1.28
6. Repairs and Maintenance of Carriage and Wagons	606.82	96.19	703.01	690.65	12.36	1.76
7. Repairs and Maintenance of Plant and Equipment	323.83	45.60	369.43	361.63	7.80	2.11
8. Operating Expenses (Rolling Stock and Equipment)	490.30	62.23	552.53	541.25	11.28	2.04
9. Operating Expenses - Traffic	549.92	105.01	654.93	639.08	15.85	2.42
10. Operating Expenses - Fuel	1104.47	112.12	1,216.59	1,205.98	10.61	0.87
11. Staff Welfare and Amenities	192.38	33.76	226.14	222.74	3.40	1.50
12. Miscellaneous Working Expenses	295.46	32.61	328.07	308.26	19.81	6.04
15. Dividend to General Revenue, Repayment of loans taken from General Revenues and Amortisation of Over Capitalisation	614.93	-	614.93	608.77	6.16	1.00
Total:	5,062.99	634.29	5,697.28	5,588.61	108.67	1.91

Unnecessary or Excessive Supplementary Grants

Supplementary grants for ten grants proved unnecessary or excessive. Major savings occurred in the following grants.

(i) Grant No.2 - Miscellaneous Expenditure (General)

The savings were mainly under Miscellaneous establishment (Rs.1.33 crores) attributed to less payment of arrears on account of implementation of recommendations of the Fourth Pay Commission, non-materialisation of machinery for Research (Rs.0.62 crore) and less contingent expenditure incurred at R.D.S.O. (Rs.0.49 crore).

A new Minor Head 'Railway Research' (under Major Head 546/547 Capital Outlay on Indian Railways - Commercial/Strategic) was opened from 1 April 1986 for booking all expenditure on procurement of 'Research and Trial equipment' by Railways. However, the Budget provision for items of research equipment procured by Research, Designs and Standards Organisation was continued to be booked under revenue Grant No.2 of 1986-87.

(ii) Grant No.6 - Repairs and maintenance of carriages and wagons

Two supplementary grants for Rs.66.64 crores and Rs. 29.55 crores were obtained in November 1986 and March 1987 respectively for meeting increase in the salary and allowances as a result of implementation of the recommendations of the Fourth Pay Commission (Rs.66.64 crores) and increase in maintenance activity and other expenses offset by savings due to less staff cost and less cost of material (Rs.29.55 crores). The supplementary grant to the extent of Rs.12.36 crores proved to be excessive.

The saving under this grant was mainly under sub-head 'wagons' (Rs.5.01 crores) and 'carriages' (Rs.3.79

crores) and was explained as due to less payment of arrears of salary and allowances (Rs.2.43 crores), less adjustment of debits on periodical overhaul (Rs.3.16 crores) and other miscellaneous heads (Rs.3.21 crores). The Central Railway accounted for maximum saving under sub-head 'wagons' (Rs.4.42 crores).

(iii) Grant No.8 - Operating expenses - Rolling Stock and equipment

A supplementary grant of Rs.62.23 crores was obtained in November 1986 on account of increase in salary and allowances as a result of implementation of the recommendations of the Fourth Pay Commission and increased level of Productivity Linked Bonus. This supplementary grant proved excessive to the extent of Rs.11.28 crores. The savings on South Eastern Railway were mainly under sub-heads, 'steam locomotives' (Rs.1.23 crores), 'electric locomotives' (Rs.0.90 crore) and 'carriages and wagons' (Rs.1.07 crores). These were explained as due to less payment of arrears of pay and allowances than anticipated (Rs.6.77 crores) and aggregate of minor savings under other items of expenditure.

(iv) Grant No.10 - Operating expenses (Fuel)

Two supplementary grants for Rs.1.30 crores and Rs.110.82 crores were obtained in November 1986 and March 1987 respectively to meet the increase in cost as also increased consumption of fuel due to increase in traffic. The supplementary grants to the extent of Rs.10.61 crores remained unutilised. The savings were mainly under sub-head 'Electric traction' (Rs.5.51 crores) and 'Steam traction' (Rs.2.89 crores). The Northern Railway accounted for a major saving of Rs.2.72 crores under 'Electric traction' which was explained as due to more allotment of funds than asked for at the final modification stage.

Injudicious Surrenders

Grant No.15 - Dividend to General Revenues - Repayment of loans taken from General Revenues and Amortisation of overcapitalisation

The grant comprises four sub-heads, viz., Dividend to General Revenues, repayment of loans and interest thereon, payment of deferred dividend and payment towards amortisation of overcapitalisation. The Railway Board did not assess the requirements under each of these sub-heads realistically in the final estimates and surrendered in March 1987 Rs.20.5 crores in the final estimates. However, this proved injudicious as the actual expenditure was more than the anticipation to the extent of Rs.8.85 crores under Dividend and Rs.5.49 crores under payment of interest on loans.

Other topics

2.12.1 Loss due to non-accountal of coal ashes and cinders

Pursuant to recommendations of the Public Accounts Committee (1970-71) in

paragraph 1.57 of 94th Report (Fourth Lok Sabha), instructions were issued by the Ministry of Railways (Railway Board) to the Railways to improve the quantum of realisation of coal ashes and prevent losses due to pilferage and deterioration. The Railways were also asked to maintain records of coal ashes in stock.

A review of the value accounts of coal ashes and cinders for the year 1986-87 showed that sale proceeds of ashes and cinders, expressed as percentage of value of coal consumed, varied widely over the Railways. The Southern Railway showed the best performance. On the South Eastern, Northern, North Eastern and Northeast Frontier Railways the sale value realised through sale of coal ashes and cinders formed a poorer percentage to the value of coal consumed by them. More details are given in Table 9.

2.12.2 Cheques and Bills

The system of Railway accounts provides for credit to a suspense head 'Cheques and Bills' as soon as cheques for

Table 9

Railway	Coal consumed (000 tonnes)	Value	Sale of coal ashes		Percentage of sale value realised to value of coal consumed
			Budget	Actuals	
(Rupees in crores)					
Central	1008	28.90	2.4416	1.0018	3.5
Eastern	1160	35.08	0.0050	not available	
Northern	1543	43.99	0.2068	0.2689	0.61
North Eastern	1114	28.73	0.1020	0.0227	0.08
Northeast Frontier	300	10.87	0.0400	0.0283	0.26
Southern	342	12.10	1.2700	1.3108	10.83
South Central	648	20.60	0.8000	1.1920	5.79
South Eastern	683	20.71	0.0399	0.0515	0.25
Western	947	30.66	0.7500	0.9455	3.15
Total:	7745	231.64	5.6553	4.8215	2.09

payment are issued. Later when banks make payment against the cheques, the same head is debited. The balance under this head should, therefore, represent mainly the total value of uncashed cheques. The system also envisages that the balance under 'Cheques and Bills' should be reviewed and reconciled half yearly and the amounts relating to uncashed cheques remaining for more than 6 months after the dates of issue should be cleared from this suspense head treating them as Railway earnings.

A review of the balances under this suspense head disclosed the following:

- (i) The balance outstanding at the end of March 1987 registered an increase of Rs.78.32 crores during 1986-87. The increases were substantial in Northern and Eastern Railways.
- (ii) The reconciliation procedures had not been followed although only such reconciliation can bring to light fraudulent payments on railway cheques.
- (iii) In North Eastern Railway the account of this suspense head was maintained inefficiently, despite substantial clearance by 1986-87.

Further details are given in Table 10.

2.12.3 Outstanding audit objections

(i) Financial irregularities, and defects noticed during central and local audits are included in the Test Audit Notes/Inspection Reports/Special letters issued to the Departmental Officers for necessary action. The Financial Advisers and Chief Accounts Officers to whom copies of such communications are endorsed watch the expeditious settlement of these audit objections. Settlement of 3488 audit objections issued up to 31 March 1987 was pending on 31 July 1987. The money value of the objections was Rs.476.12 crores. The details are given in Annexure II. Objections pending settlement for over three years as on 31 July 1987 were 975 with a money value of Rs.108.66 crores. Some of the objections were outstanding from 1971-72.

Analysis of the objections pending in respect of civil engineering departments railway-wise is shown in Table 11.

Table 10

Railway	Balance as on 31 March 1986 (Rupees)	Balance as on 31 March 1987 in crores	Increase/ Decrease(-)
Central	25.14	29.62	4.48
Eastern	26.78	47.21	20.43
Northern	33.93	58.22	24.29
North Eastern	- 7.97	0.67	8.64
Northeast Frontier	11.79	14.55	2.76
Southern	6.02	1.59	- 4.43
South Central	16.88	26.00	9.12
South Eastern	14.10	9.08	- 5.02
Western	14.42	13.11	- 1.31
Other units	69.40	88.76	19.36
Total	210.49	288.81	78.32

Table 11

Railways	Irregularities in recurring payments	Overpayments to Contractors not recovered			Total	(Rupees in lakhs)	
		less than one year	between one to two years	over two years		Infructuous expenditure requiring fixation of responsibility	Avoidable expenditure requiring remedial action
Central	8.30	-	-	-	-	-	171.73
Eastern	27.59	0.67	12.56	-	13.23	1.81	304.70
Northern	69.66	1.34	2.17	-	3.51	59.23	1000.09
North Eastern	2.13	9.36	14.46	0.11	23.93	92.92	76.24
Northeast Frontier	0.18	0.25	0.69	2.21	3.15	0.7	-
Southern	3.84	-	-	-	-	-	8.14
South Central	-	2.49	7.82	2.12	12.43	5.57	539.72
South Eastern	22.95	0.13	2.73	15.03	17.89	23.61	407.15
Western	0.80	0.39	-	-	0.39	6.07	50.71
Chittaranjan Locomotive Works	-	-	-	-	-	0.52	-
Metropolitan Transport Project, Calcutta	0.36	-	-	-	-	-	291.36
Total:	135.81	14.63	40.43	19.47	74.53	189.80	2849.84

2.12.4 Recoveries at the instance of Audit

During the year 1986-87, Rs.4.40 crores were recovered or agreed to be recovered at the instance of Audit. A further amount of Rs.44.09 lakhs was recovered as a result of review made by the Railway Administrations on the basis of audit objections.

2.12.5 Unsanctioned expenditure

All items of irregular expenditure incurred by the Railways, such as expenditure incurred in excess of estimate sanctioned, expenditure incurred without detailed estimates and miscellaneous over-payments, etc., are noted in objection books by the Financial Adviser and Chief Accounts Officers pending regularisation. At the end of

1986-87, Rs.2662.78 crores were thus held under objection. It comprised Rs.2073.77 crores for want of estimates, Rs.504.13 crores for expenditure incurred in excess of sanctioned estimate and Rs.84.88 crores in respect of miscellaneous objections.

Bulk of the unsanctioned expenditure for want of estimates viz., Rs.1350.82 crores was on account of adjustment of debits for rolling stock by the Railways without preparation of estimates. The oldest outstandings pertain to March 1954 on the Central Railway, April 1963 on the Northeast Frontier Railway, March 1968 on the Eastern Railway, March 1979 on the South Eastern Railway and September 1979 on the Western Railway. Delays in settlement of objections raised in internal check by the Accounts Depart-

ment of the Railways have resulted in large accumulation of unsanctioned expenditure.

2.12.6 North Eastern Railway -
Liability for non-payment of
sales tax

According to section 25-A of Bihar Finance Act 1984, every person making payment for execution of works contracts is responsible for deduction of sales tax at a rate not exceeding four per cent from the bills of the contractors and making payment to Bihar Government. This responsibility is vested in three Railways operating in Bihar. However, while the Eastern and

Northeast Frontier Railways were implementing the provisions of the Act, the North Eastern Railway Administration did not recover and remit the amount to the Bihar Sales Tax authorities. In May 1987 the Railway Board reiterated the legal advice that the Railway Administrations were liable to make deductions from the bills of the contractors and deposit the same into the Bihar Government treasuries. Due to failure of the North Eastern Railway to comply with this Act, the Railway has incurred a contingent liability to make payment to Bihar Government on demand. It is estimated to be Rs.21 lakhs for the tax and Rs.42 lakhs towards penalty, for the year 1984-85.

CHAPTER III

APPRAISALS

3.1 Procurement and utilisation of track materials

1. Introduction

The Railway system in India as on 31st March 1986, had 77153 running track kilometres comprising 47810 in the broad gauge, 25097 in the metre gauge and the balance in the narrow gauge systems. The broad gauge system falls in four categories depending on traffic density (gross tonne kilometres per annum) and each category is subdivided in five groups, depending on speeds of trains using the track. Standards have been laid down for all groups and categories, about weight of rails to be used (ranging from 60 kg to 52 kg per metre) and number of sleepers to be laid (between 1660 and 1310 per km). Similar standards have been laid down for systems of other gauges also. A complete picture of these standards is given in Annexure III.

Due to normal wear and tear as well as changes in traffic density etc. track renewals have to be continuously undertaken to bring the track up to the prescribed standards through track renewal programmes. However, the Railways have not maintained the required tempo in track renewals, and accumulated arrears in track renewals.

The arrears in track renewal increased from 13048 km at the end of March 1980 to 20306 km at the end of March 1985 due to inadequate allocation of funds and constraints in availability of materials. During the Sixth Plan (1980-85) the actual track

renewal achieved was only 9558 km as against the target of 14000 km. In the two years thereafter, Railways overtook a part of the arrears, by providing additional funds. As on 31 March 1987, the arrears were 13033 km of which 9481 km were in sections with traffic density of more than 10 Gross Tonne Kilometres. The backlog in renewals led to imposition of speed restrictions over 2154 km in 1984-85, 2090 km in 1985-86 and 2291 km in 1986-87, affecting adversely fuel consumption and turn round of rolling stock.

2. Scope of review

The progress in track renewal works depends crucially on availability of rails and sleepers. Therefore a review by Audit covering procurement and utilisation of rails and sleepers was undertaken and the results are set out below.

3. Organisation

The Railways, submit to the Board, annual indents for rails and sleepers required for approved works between September and November of the previous year. These indents are consolidated and orders are placed on steel plants to the extent acceptable to them and for the balance tenders are invited. Urgent requirements, not available from indigenous sources are imported. Orders for wooden sleepers are placed on Forest Departments of the States of Uttar Pradesh, Assam, Madhya Pradesh, Andhra Pradesh, etc. after discussions.

4. Highlights

- The supply of broad gauge rails from indigenous source viz. the Bhilai Steel Plant was only to the extent of 57 to 88 per cent of the requirements during the years 1981-82 to 1986-87. The indigenous production of metre gauge rails had stopped in April 1982. Consequently the Railways resorted to costlier imports.
- In the import of 10,000 tonnes wear resistant rails in April 1979 the Railway Board failed to press for a rebate of Rs.18 lakhs following relaxation of specification. The cost economy of importing through Vishakapatnam port to save substantial haulage cost was also not considered.
- Economic option of accepting additional quantity of rails offered by a supplier was not exercised, resulting in extra expenditure of Rs.65.38 lakhs in a later import.
- Import of metre gauge rails through an order placed in November 1985 was injudicious and involved extra expenditure of Rs.33.75 lakhs.
- Despite potential for considerable economy procurement of longer rails had not commenced.
- Production of concrete sleepers in the departmental units during 1986-87 was costlier by Rs.340 lakhs than the supplies by the private firms. The available capacity in the country for production of concrete sleepers was also not utilised fully resulting in procurement of cast iron sleepers which are costlier in the long run.
- Of the two departmental units, the one with indigenous technology at Khalispur performed

better than the one at Allahabad with imported technology.

- Though 3637 track km could have been laid with the 57.68 lakh concrete sleepers procured between April 1983 and March 1987, 75 per cent only were laid in track.
- Requirements of cast iron sleepers were not assessed realistically and 21.77 lakh CI sleepers were procured in excess during 1984-85.
- The Railway Board did not avail of reduced rates offered by some of the CI sleeper suppliers resulting in extra expenditure of Rs.295 lakhs.

Rails

5. Indigenous supply

The only source of indigenous supply of broad gauge rails is the Bhilai steel plant, which has annual capacity to supply 5 lakh tonnes. However, its commitment to supply and actual supply fell below requirements of railways. The trend of steady increase in supplies since 1981-82 was reversed in 1986-87 when the supplies fell below even the level attained in 1983-84. Further details are given in Table 12.

The drop in supply in 1986-87 was attributed to adoption of conventional open hearth process and stoppage of payment of overtime in steel plants with effect from 1 April 1986. The plant undertook modernisation in stages after 1984-85 and the facilities are expected to be operational only after 1987-88. It has at present no facilities for end hardening of rails for increasing wear resistance, which is a feature in imported rails. It is yet to install facilities for sawing, drilling and straightening rail ends.

Table 12

Year	(Figures in lakh tonnes)			
	Requirement	Supply commitment by BSP	Actual supply by BSP	Percentage of compliance to requirement
1981-82	3.25	2.10	1.84	57
1982-83	3.25	2.10	2.02	60
1983-84	2.92	2.40	2.40	82
1984-85	3.50	2.68	2.68	77
1985-86	3.70	3.50	3.25	88
1986-87	4.01	3.50	2.37	59

Metre gauge rails were obtained for many years from Indian Iron and Steel Company (IISCO) and Tata Iron and Steel Company (TISCO). They however, stopped rolling metre gauge rails in March 1979 and April 1982 respectively, claiming that the prices were unremunerative. Though the Ministry of Steel had agreed in September 1982 to take steps to restart production of such rails by TISCO, supply has not started so far (November 1987). Consequently, the Railways were obliged to import annually 20,000 to 65,000 tonnes of metre gauge rails. During 1986-87, the average price of import (inclusive of freight and customs duty) at a port of entry in India was Rs.8400 per tonne which exceeded the rate of Rs.7370

per tonne paid to Bhilai Steel Plant for comparable broad gauge rail. The failure to reactivate the indigenous source of supply led to costlier imports.

6. Import of rails

The gap between requirement and indigenous supply was met through imports by the Railways, taking also into consideration the prospects of supply of sleepers and other fittings required for use along with imported rails. The import during the seven year period 1980-1987 was 3.134 lakh tonnes valued at Rs.113.12 crores as detailed in Table 13.

Table 13

Year	Quantity imported			Value (Rs. in crores)
	BG ('000 tonnes)	MG ('000 tonnes)	Total ('000 tonnes)	
1980-81	26.6	-	26.6	12.12
1981-82	8.5	6.3	14.8	5.42
1982-83	-	-	-	-
1983-84	45.0	25.0	70.0	24.18
1984-85	-	-	-	-
1985-86	19.5	35.0	54.5	19.72
1986-87	63.5	-	63.5	21.66
1987-88	75.0	9.0	84.0	30.02
Total:			313.4	113.12

The imports were from West Germany, Poland, United Kingdom, France, South Korea, Yugoslavia and Canada. Major supplies were made at c.i.f. prices not exceeding Rs.4800 per tonne. No significant trend towards large increases during this seven year period 1980-87 was noticed.

Audit comments on certain features connected with import of rails are given below.

(i) The Ministry of Railways placed in April 1979 an order for import of 10,000 tonnes of wear resistant (WR) 60 kg rails. The life of this variety of rails is over five times that of indigenous rails. The import was mainly for use in the difficult Kottavalasa-Kirandul Ghat Section of South Eastern Railway (5500 tonnes) and track renewal in the heavily worked Grand Chord section of Eastern Railway (2700 tonnes). An additional supply of 10,000 tonnes at the same rates was ordered in June 1979 on the ground that there was increasing trend in the price of rails in the world market. The total supply of 20,000 tonnes was received by June 1980 one half at Calcutta and another half at Bombay. A review of the contract revealed the following points:-

(a) The supplier had offered in February 1979 a reduction of Rs.90.50 per tonne if elongation of 9 per cent (minimum) against 11.5 per cent (minimum) prescribed in the specification was acceptable. This was not accepted. In November 1979, however, the Railway Board relaxed the specification accepting elongation of 9 per cent (minimum) as a result of representation from the firm. But no reduction in prices attributable to this relaxation was sought. On this being raised by Audit, the Railway Board stated in December 1987 that the chemical composition of rails for which rebate was offered was inferior to the one for which orders

were placed. This, however, does not clarify why a rebate was not pressed for lowering of specifications. Based on the offer given by the firm, this failure to seek a rebate led to extra expenditure of the order of Rs.18 lakhs.

(b) The Railway Board did not consider inclusion of Vishakapatnam as a port of discharge. Hence 6,052 tonnes of rails allotted to South Eastern Railway were discharged at Calcutta Port, transported by road to Shalimar Goods shed at Calcutta and despatched to Waltair Division involving rail haulage for about 900 km which could have been avoided to a large extent had the supplies been received through Vishakapatnam Port. The Railway Board stated in December 1987 that the cost of establishing organisation for clearance at Vishakapatnam would have been more. It was however, seen that the Railway Board had not worked out the relevant economics of importing through Calcutta and Vishakapatnam although the additional haulage cost from Calcutta was of the order of Rs.18 lakhs at public tariff rates.

(ii) An order was placed in September 1983 for supply of 10,000 tonnes of 52 kg rails on a firm 'B' of South Korea at an FOB price of \$ 350 per tonne. Though the delivery period was extended up to 30 April 1984, it supplied only 556.5 tonnes by July 1984 when the order was cancelled at the risk and cost of the firm. In the meantime, the Railway Board, after calling for global tenders, placed in February 1984 an order on firm 'C', also of South Korea, for supply of 25000 tonnes of same type of rails at a lower FOB price of \$ 310/311 per tonne. This firm 'C' offered in August 1984 to supply additional quantity up to 10,000 tonnes without change in prices or conditions

of supply. Instead of accepting this offer, particularly in the context of cancellation of orders on firm 'B' at its risk and cost, the Board decided to float fresh short notice tenders for 9,500 tonnes in December 1984. The lowest tender received from a French firm in April 1985 for supply at FOB price of \$ 326 was accepted and supplies received between December 1985 and May 1986. This led, apart from delay of over one year in the receipt of rails, to an extra expenditure of Rs.65.38 lakhs computed with reference to the offer for additional supply given by firm 'C'.

The Railway Board stated in December 1987 that prices in international market depended on demand and supply and order book position of steel plants, but did not clarify why the economic option of ordering the additional quantity on firm 'C' was not exercised.

(iii) A negotiated contract for supply of 10,000 tonnes of 60 lb/29.9 kg metre gauge section rails was entered into with a British firm 'D' in September 1985 at the FOB rate of \$ 319 per tonne. At the time the offer of this firm was under consideration, the Board, had received, against another global tender for supply of 30,000 tonnes of 37.2 kg section rails, an offer from firm 'E' of South Korea for supply at f.o.b. price of \$ 317 per tonne against which order for only 20,000 tonnes was placed in November 1985.

It was noted by Audit that the contemporaneous offer of firm 'E' was lower by \$ 27 on c.i.f. basis as compared to the offer of firm 'D'. Besides, the Board had decided more than one year earlier, in February 1984, that in high density metre gauge sections 37.2/44.6 kg rails (offered by firm 'E') should be used in place of 60 lb/29.9kg rails (offered by firm 'D'). In the circumstances procurement from firm 'D' instead of from firm 'E' was injudicious and involved an extra expenditure of Rs.33.75 lakhs.

The Railway Board stated in December 1987 that the new standard was to be brought into use as soon as they could be implemented. This did not clarify the audit points raised.

7. Economies of longer rails

At present tracks are laid with rails of 13 metre length. The joints are welded through flash butt welding plants, in panels of 39 or 65 metre lengths for reduction of noise and improvement of riding conditions. Bhilai steel plant had facilities to make longer rails up to 26 metre each. The increase in length of rails would have led to reduction in the number of welds and overall savings in cost. The Railway Board, therefore, requested the plant in 1979 to supply rails partly in lengths of 26 metres each and instructed seven out of nine railways to receive a maximum of 2000 tonnes of rails in 26 m lengths and make arrangements for their movement in special wagons. However, no supply of 26 m rails has been so far (September 1987) received from Bhilai steel plant despite the reiteration of the request for longer rails in September 1986. On the other hand the same plant produced rails of this length for export to Iran and Korea.

In the global tenders for rails some of the offers included a reduction in rates for supply of rails in lengths of 18 to 26 metres, as against the standardised 13 metres. The Railway Board, however, did not consider the economical alternative of getting longer rails.

The continued procurement of rails only in lengths of 13 metres led to extra expenditure which, however, could not be quantified. The cost of each weld is about Rs.100.

The Railway Board explained in December 1987 that 52 kg rails are not amenable for indigenous production in length beyond 13 metres.

8. Supply of defective rails by the
Bhilai Steel Plant

The Southern Railway Administration observed in December 1985 manufacturing defects in the rails supplied by the Bhilai steel plant during 1980. It had to withdraw 390 tonnes of these rails already laid on an important section to ensure safety. The steel plant was advised in January 1986 to introduce 'on line' ultrasonic testing of rails to check the internal soundness of the rails before despatch to the Railways to prevent such defective supply in future. The replacement cost of these 390 tonnes of rails removed from track was Rs.28.74 lakhs excluding cost of welding, transportation to site etc. which is yet to be recovered or adjusted. The position of rails of the same batch of production supplied and laid in track on other Railways had not been ascertained.

Sleepers

9. Procurement of sleepers

The Railways have been traditionally using wooden, cast iron and steel sleepers. Based on the recommendations of Railway Accident Enquiry Committee 1968, the Railway Board took a policy decision to introduce concrete sleepers on a large scale in the trunk routes. Concrete sleepers with elastic fastenings are economical and have more than twice the track service life of other types of sleepers.

Despite efforts to increase other kinds of sleepers, cast iron (CI) sleepers, formed the mainstay of the railway system and about half the track is supported by cast iron sleepers as indicated in Table 14.

Table 14

As on 31 March	B.G. track kilometres laid with				Total (all types)
	Concrete sleepers	Wooden sleepers	Steel sleepers	C.I. sleepers	
1985	2,462	7,665	10,405	25,205	45,737
1986	2,500	7,700	10,500	24,400	45,100
1987	3,922	7,614	10,533	24,670	46,739

Table 15

Year	Total number of sleepers procured (Concrete sleeper Figures	Wooden sleeper in	Steel sleeper lakhs	CI sleeper)	Percentage of CI sleeper to total sleepers
1984-85	69.37	12.53	31.17	3.90	21.77	31.5
1985-86	63.94	14.71	22.43	3.30	23.50	36.5
1986-87	65.43	18.68	19.41	9.74	17.60	26.8

The utility of CI sleepers is strictly limited as they should not be laid in heavy density track on which higher horse power locomotives and trains with higher axle load wagons are run. However, due to lower receipts of other sleepers, the percentage of CI sleepers procured to total supplies was high and ranged between 26.8 and 36.5 as shown in Table 15.

During 1986-87, the average prices of the firms fail and some delay the for comparable sleepers were as below: starting of their production.

1. Concrete sleepers from : Rs.477
departmental units
2. Concrete sleepers from : Rs.344
private firms
3. Cast Iron sleepers : Rs.420
4. Steel sleepers from : Rs.650
Durgapur Steel Plant
5. Wooden sleepers from : Rs.550
State Forest departments

10. Concrete sleepers

The annual capacity for production of concrete sleepers in the country by 1981-82 was 17.5 lakh sleepers in 23 firms in private sector and 3.50 lakh sleepers in the railway departmental units at Allahabad and Khalispur (Varanasi). However, the actual supply in the last three years was well below the capacity as shown in the Table 16.

The failure to utilise the available capacity led eventually to more procurement of the cast iron sleepers. Since they would need more frequent replacement due to their shorter life, their use was costlier in the long run. The Railway Board explained in December 1987 that the capacity shown above does not get installed as soon as the contracts are awarded as some

The production from departmental units resulted in extra expenditure as the prices of supply by private firms were below the cost of departmental production. During 1986-87, the departmental cost exceeded the price of private firms by Rs.172 to Rs.200 per sleeper or Rs.340 lakhs for the entire departmental production of that year.

11. Departmental unit at Allahabad

This unit estimated to cost Rs.128.50 lakhs was set up with West German technology to have a production capacity of 25000 sleepers per month, in terms of a collaboration agreement signed in March 1986. The actual capital cost till it started production in May 1981, was Rs.4.13 crores. The plant has been able to attain only a production rate of 14208 per month in 1986-87 or 57 per cent of its rated capacity. Besides, the rate of rejection of its output was as high as 6.2 per cent in January 1987 as against only 0.8 per cent in Khalispur unit. The average cost of production during 1986-87 in Allahabad unit was Rs.477 exceeding that of Rs.400 in Khalispur unit.

The collaboration agreement provided for payment of royalty of one DM in repatriable foreign exchange and one Indian Rupee for each sleeper for a period of five years from commencement

Table 16

Year	Capacity	Supplies from			Total supplies
		Private sector	Allahabad unit (In	Khalispur unit lakhs)	
1984-85	21.00	10.15	1.56	0.82	12.53
1985-86	21.00	12.30	1.60	0.81	14.71
1986-87	21.00	16.01	1.77	0.90	18.68

of production, but to cover only 10 lakh sleepers in all. This ceiling limit has not been reached even after six and half years from May 1981, when the unit commenced production. A proposal to extend the agreement is under consideration. This was justified on the ground of non-availability of adequate raw material, loss of certain dimensional drawings supplied by the collaborator and need for training at the works of the collaborators.

The collaboration provided for use of either 7.5 or 9.5 mm diameter wire in the production process. However, the use of 7/7.5 mm diameter wire was costlier since it involved use of eight wires as against four wires required in the case of 9.4 mm dia wires and four sets of fixtures involving extra labour. The initial production commenced only with 7/7.5 mm diameter wires available in the country. However, adequate efforts have not been made for setting up indigenous facilities for procuring 9.4 mm diameter wire, which would have led to cost reduction. Between April and September 1985, only 250 tonnes of such a wire could be obtained as against requirement of 2000 tonnes. Consequently about 85 per cent of production appeared to involve use of 7/7.5 mm diameter wires, at higher costs.

12. Departmental unit at Khalispur

This was set up and commissioned in June 1982 for production of 4100 sleepers per month, adopting indigenous technology, at a cost of Rs.90 lakhs. The unit attained the rate of monthly production 6500 sleepers in 1985-86, exceeding its capacity, due to increased automation and improvement in manufacturing technique. Its rejection rate and cost of production were lower than those at Allahabad unit. In short, the performance of Khalispur unit set up with indigenous technology was better than that of Allahabad unit set up with foreign collaboration.

13. Utilisation of concrete sleepers

A review of the receipt and utilisation of concrete sleepers disclosed that the sleepers procured between April 1983 and March 1987 were not fully utilised in the track renewal works by the seven Railways which received the sleepers. They obtained 57.68 lakh concrete sleepers with which 3637 track km could be laid. But the track length actually laid with concrete sleepers during this period was only 2730 km i.e. 75 per cent. Among these Railways, the utilisation rate ranged between 98 per cent in Central Railway to 64 per cent in Northern Railway. The detailed position of sleepers received and laid in track, railway-wise, during 1984-85 to 1986-87 is shown in Annexure IV.

Even the utilisation was not in accordance with identified priorities. The instructions to lay these sleepers on Group 'B' routes with speeds between 130 and 180 kmph were not followed in Central, Southern and South Eastern Railways. Adequate priority was also not given to lay concrete sleepers in Group 'A' tracks with highest speed and heavy traffic. As a result even on the Rajdhani routes (Group 'A') on the Western, Northern and Eastern Railways, the track laid with concrete sleepers formed only 21, 37 and 67 per cent respectively of the total track, thereby affecting the speed and mobility of high speed trains.

The laying of concrete sleepers in track involves use of portal cranes, sleepers layers etc. The number of machines available for concrete sleeper laying declined from 27 in 1983-84 to 22.5 in 1986-87. This was attributed to the machines being under POH or under repairs. Six sleeper layer machines which were received in 1975 at a cost of Rs.18 lakhs had remained unutilised on Central, Eastern, Northern, Southern, South Eastern and Western Railways.

Due to inadequate availability of the sleeper laying machines, the Railways had to resort to manual laying

against the extant instructions of RDSO. The Northern Railway did not take up manual laying and consequently had the lowest utilisation percentage of 64 among all the Railways.

14. Steel Sleepers

The only source of indigenous supply is Durgapur Steel Plant which has a capacity to produce 10 lakh sleepers per annum. However, its annual supply ranged only from 2.8 to 3.3 lakh tonnes between April 1980 and March 1986. Consequently, the Railways had to import 36 thousand tonnes of steel sleepers between 1980 and 1986 at a FOB cost of Rs.15.50 crores. Taking into account prices at which indigenous procurement was made, the import resulted in additional expenditure of Rs.8.64 crores.

15. Cast Iron Sleepers (CI)

In terms of the procedure followed by the Railway Board, procurement of CI sleepers is made every year for the entire difference between the total number of sleepers indented by the Railways and the number of sleepers, other than CI sleepers allotted to them. This procedure failed to take note of actual variations caused by reduction in demand for sleepers, and receipt of other types of sleepers. Consequently, the procedure led to both contracted and actual supplies

exceeding the modified requirement for CI sleeper during the year 1984-85 and 1985-86 as shown in Table 17.

Against open tenders for supply of CI sleepers, the Railway Board received in April 1983, 227 offers. The lowest rate received was Rs.2821 per tonne and was found quite reasonable with reference to the rate accepted in August 1981 and adjusted for changes in price levels since then. Out of the 227 offers, the rates quoted in 194 tenders exceeded this lowest rate of Rs.2821 per tonne. In accordance with the established practice, a counter offer of this lowest rate was decided to be made to the tenderers for acceptance.

It was also noted by the Board that with the keen competition and already high level of participation, it would not be prudent to proliferate suppliers to unmanageable numbers. Accordingly, the Board decided to invite in future only limited tenders for CI sleepers from a panel of firms with proved capacity for quality supply.

In this background, the Board decided to make the counter offer only to 53 established suppliers, and sought in July 1983, extension of offers beyond their initial validity up to 12 July 1983. While exceeding the validity, five firms offered reduction in rates ranging from 3 to 5 per cent.

Table 17

Year	Modified requirement (including margin) of sleepers for approved works	Supply of sleepers other than CI sleepers	(Numbers in lakhs)			
			Gap to be filled by CI sleepers	Contracted supply of CI sleepers	CI sleepers supplied	Excess supply of CI sleepers
1984-85	47.26	47.69	Nil	21.77	21.77	21.77
1985-86	57.17	40.35	16.82	23.50	23.50	6.68

Instead of seriously considering this offer for reduction, the Board placed orders in November 1983 at the counter offer rates of Rs.2821 per tonne for supply of 1.7 lakh tonnes on 48 firms, excluding the five firms which offered a reduction on this rate.

Thereafter, the Board continued to place repeat orders at the same rate on the same firms up to December 1985 without inviting fresh tenders. While doing so, orders were placed also on these five firms which had been excluded initially at the rate of Rs.2821 per tonne, ignoring the reduction in rates offered by them. Thus in all 3.49 lakh tonnes of CI sleepers were procured between November 1983 and December 1985 at the rate of Rs.2821 per tonne failing to take advantage of the offer for reduction of 3 to 5 per cent in this rate. This entailed extra expenditure which would be of the order of Rs.295 lakhs.

3.2 Review of Safety Works on Indian Railways

1. Introduction

In railway terminology an accident is an unusual occurrence which does or may affect the safety of the railway, its rolling stock, permanent way, signalling works, etc. or passengers, railway servants or others. Accidents are classified as those attributable to human failures, and those caused by failure of equipment. Other accidents like cattle or trespassers getting run over by trains, fires at stations, etc. are termed as miscellaneous accidents. Failure of human element is the largest single factor responsible for accidents and Railways have introduced on the recommendations of a number of accident enquiry committees, technological safety devices in order to minimise accidents due to human failure. Besides provision of road over/under bridges, lifting barriers at busy level crossings, etc., the Railways have introduced modern safety measures like track circuiting

of lines, provision of axle counters, auxiliary warning system and ultrasonic testing for detection of flaws not visible to naked eye.

While the Railways have the primary responsibility to plan and implement all safety measures, an external agency, namely, the Ministry of Tourism and Civil Aviation oversees the safety system in Railways. Commissioners of Railway Safety of this agency, direct, advise and caution the Railway administrations through their regulatory, inspectorial and investigatory functions. All serious accidents are required to be reported to them and they have also the statutory obligation to enquire into all accidents involving death of or grievous hurt to any person.

2. Scope of Review

A review of progress in implementation of measures including use of advanced technological aids, for ensuring safety in railway operation was conducted by Audit and results are set out in the following paragraphs.

3. Organisation

The Railway Board has a Safety Directorate under Member (Traffic) and Director (Safety) who deal with all aspects of accidents. The Railways have Chief Traffic Safety Superintendents assisted by Junior Administrative Grade or Senior Scale Officers. At the Divisional level there are Divisional Safety Officers assisted by Safety Counsellors drawn from the Traffic, Mechanical, Signal and Civil Engineering Departments of the Division.

4. Highlights

- The accidents per million train kilometres increased from 10.54 in 1970-71 to 26.17 in 1986-87 and a majority of accidents were attributed to human failure.
- The progress on technological improvements and aids to safety such as track circuiting, pro-

vision of axle counters, panel interlocking at stations, auxiliary warning system, last vehicle check device, etc. was slow and substantial investment thereon was unproductive due to non-completion.

- Failures of signalling equipment has shown an increasing trend.
- No targets had been fixed for conducting safety inspections and the performance amongst the Railways varied widely.
- Road over/under bridges sanctioned in 1983-84 and earlier and involving Railways investment of Rs.1859 lakhs had not been completed due to delays in completion of approach roads by the State Governemnts and local bodies.

5. Trend of accidents

The total number of all kinds of accidents rose from 4918 in 1970-71 to

the highest level of 15665 in 1984-85 and showed a decline to 14927 in 1985-86. Incidence of accidents per one million train kms has also risen from 10.54 in 1970-71 to 28.95 in 1984-85, dipping to 26.17 in 1985-86. Bulk of these accidents was caused by failure of railway equipment. These figures exclude equipment failures dislocating the service for a period of less than 30 minutes.

It should, however, be mentioned that number of train accidents involving collisions, derailments, level crossing mishaps and fires did not go up steeply from 1970-71. In fact there is an improvement since April 1982. More details are given in Annexure V.

Human failure on the part of Railway staff was the largest single cause for the train accidents in the last five years involving collisions, derailments, level crossing mishaps and fires as shown in Table 18.

Table 18

Cause of accidents	1981-82	1982-83	1983-84	1984-85	1985-86
1. Human failure					
(a) Railway staff	761	514	514	536	484
(b) Others	103	82	81	75	66
2. Equipment failures					
(a) Track	26	20	18	22	24
(b) Rolling stock	139	106	67	83	89
(c) Electrical/ Signal and Telecommunication	1	Nil	3	2	2
3. Sabotage	12	12	11	12	4
4. Miscellaneous	88	63	74	82	48
Total:	1130	797	768	812	717

6. Track circuiting

Track circuiting is a technology for automatic electrical and visual display of occupancy of lines between stations or at the stations, which is an improvement over the total reliance on the station masters. It reduces the chances of collision of trains. The Railway Reforms Committee noted that out of 6197 block stations, track circuiting on run-through lines had been provided on 2305 stations only up to March 1982 and recommended that in view of the intimate linkage of safety with track circuiting, the Railways should complete, before March 1990, track circuiting of run-through and other passenger lines at all stations on trunk routes and main lines and important sections of branch lines. However, between 1982 and March 1986 track circuiting was completed only in 247 stations.

Even on the trunk routes, out of 2597 stations, track circuiting of run-through lines and other lines had been completed in respect of 2026 stations (78 per cent) and 650 stations (25 per cent) only respectively. On the South Eastern Railway, the works sanctioned in 1981 and 1982 had not progressed due to non-availability/diversion of required wooden sleepers to other works. It was decided in June 1979 to develop and use concrete sleepers suitable for track circuiting, but this has not been done and track circuiting works are still being carried out only with wooden sleepers. The Board explained that the slow progress was due to shortage of funds and slow absorption of the new technology.

7. Axle Counters

The axle counter is a device to count the axles of trains passing at its location, helping in transmission of information about line occupancy. It is a cheaper alternative, approved in 1977, to conventional track circuiting and does not require use of wooden sleepers, besides being immune to

failure caused by flooding of tracks during monsoon. However, the progress in installation of axle counters was quite slow as described below.

- (i) Out of 214 axle counters indented by South Eastern Railway up to March 1984, 186 had been received but only 69 had been installed and commissioned so far (May 1987). The balance 117 axle counters valued at Rs.84.43 lakhs remained unused.
- (ii) Twenty-eight imported axle counters (value Rs.57.57 lakhs) were received by Western Railway in 1983 of which 16 were yet to be installed even after four years. Besides there were 211 failures during the period April 1986 to February 1987 in the axle counters installed at nine locations.
- (iii) On the Southern Railway the Podanur Workshops had manufactured 262 axle counters, out of which, the Railway had installed only 30 so far (March 1987).
- (iv) On the Eastern Railway, installation of 54 counters procured in 1984 at a cost of Rs.36.15 lakhs was held up due to delay in developing axle counter cable suitable for electrified sections.
- (v) On the Northern Railway, twelve sets of axle counters procured at a cost of Rs.12.82 lakhs remained unused (February 1987).
- (vi) The Central Railway received 232 axle counters up to March 1987, out of which only 16 were installed and the balance 216 axle counters costing Rs.142 lakhs were yet to be installed (June 1987).

The Railway Board attributed the slow progress in installation of Axle counters to resource constraints and slow absorption of the new devices.

8. Panel Interlocking Works

Panel interlocking works enable centralised operation of signals and points by the station master from a panel installed in his room. It ensures safety and eliminates operation through cabins at a distance. By March 1986, the system was operational in 669 stations and works were in progress in 87 stations. In South Eastern Railway, panel interlocking works in 20 stations were decided in April 1979 to be deferred due to non-clearance by Commissioner of Railway Safety. However, work continued at three stations and cable laying was also completed at 12 other stations between December 1980 and May 1982. In June 1982 it was finally decided not to take up the panel interlocking works at 17 stations and by that time Rs.47.78 lakhs had been already spent on these works. The extent of infructuous expenditure had not been assessed.

9. Auxiliary Warning System (AWS)

This is a system for prevention of collision of trains. Delay in Eastern Railway in completing works and non-functioning of equipment installed in locomotives and electrical multiple units (i.e., suburban trains) connected with this system was commented in paragraph 38 of Advance Report of the Comptroller and Auditor General of India for the year 1983-84 - Union Government (Railways). Since then, the Railway Board decided in December 1985 that the system on Eastern Railway be scrapped as the equipment installed were unsuitable for suburban trains. Investment of Rs.62.83 lakhs on this account proved infructuous. However, the importance of installing AWS throughout the suburban section and in all EMUs of Eastern Railway was stressed and recommended by Commissioner of Railway Safety who enquired into the accident of head-on-collision between two EMU local trains at Dum Dum Junction on 27 January 1986. Action thereon is yet to be taken

(December 1987). The Railway Board stated in December 1987 that poor law and order situation was responsible for the delay in inducting the sophisticated device.

10. Last Vehicle Check Device (LVCD)

The system of verification of complete arrival of a train before closing the section in rear, is dependent on physical verification, at the end of the train, of the 'Last Vehicle board' or 'Tail lamp' at night. Efforts to develop an indigeneous design of Last Vehicle Check Device, which are going on for many years have not been successful so far (October 1987) despite the recommendations of the Commissioner of Railway Safety, who enquired into a very serious accident on 6 August 1986, that the development of a suitable Last Vehicle Check Device should be given the top most priority.

11. Failure of signalling equipment

The number of failures of signalling equipments has shown recently an increasing trend as shown in Table 19.

This trend requires to be arrested as on the Northern Railway, six major train accidents occurred between April 1982 and March 1987, due to signal failures attributable to improper maintenance, gear defects, interference with gears etc.

The Railway Board explained in December 1987 that the failures have to be related to the population of equipment and the number of operations and that efforts were made to replace the equipment on age-cum-condition basis. Even after the signalling gears are replaced in time there had been no abatement of accidents due mainly to human element.

Table 19

	1983-84	1984-85	1985-86
1. Total number of signal failures			
South Eastern Railway	2625	3397	3807
Southern Railway	813	1261	1310
Western Railway	1458	1324	1593
Eastern Railway	3370	3741	3927
Northern Railway	NA	7861	6905
South Central Railway	1197	1105	1221
2. Failures due to ageing of signal gears			
South Eastern Railway	113	618	615
Southern Railway	32	274	225
Western Railway	295	208	153
Eastern Railway	102	79	72
Northern Railway	NA	NA	NA
South Central Railway	600	600	647
3. Failures due to bad maintenance			
South Eastern Railway	216	456	400
Southern Railway	21	195	177
Western Railway	766	729	1041
Eastern Railway	560	616	719
Northern Railway	NA	NA	NA
South Central Railway	597	505	407
4. Failures due to defective design			
Western Railway	3	387	399
South Eastern Railway	81	386	370

(NA - Not Available)

Note: Railways which did not maintain records showing cause-wise analysis of failures are not exhibited in the table.

Table 20

Monthly average of inspections between April 1986 and September 1986

Railway	Night Inspection	Road Inspection	Level Crossing	Foot Plate	Mock Drill	Total
Central	341	54	562	434	2	1393
Eastern	361	198	519	867	2	1917
Northern	160	129	504	626	2	1422
Southern	484	353	873	720	4	2433
South Central	618	281	1014	495	3	2412
South Eastern	372	76	388	828	2	1667
Western	594	172	1006	881	12	2665

12. Inspections

Regular and rigorous inspections of track equipment and installations by the Railway officers and inspectors are essential to ensure railway safety.

A review of the safety inspections carried out in the seven major Railways between April 1986 and September 1986 showed comparatively poorer performance in Central, Eastern, Northern and South Eastern Railways as shown in Table 20.

No targets for inspections have been set by the Railway Board. The performance amongst the Railways varied widely.

13. Inspections and Enquiries by Commissioners of Railway Safety

About 3 to 4 per cent of train accidents had to be statutorily enquired into by the Commissioners of Railways Safety, because of loss of lives or serious injuries to passengers as detailed in Table 21.

Table 21

Year	Number of train accidents		
	Total	Enquired into	Percentage enquired into
1982-83	797	21	2.6
1983-84	768	29	3.8
1984-85	812	33	4.1
1985-86	717	23	3.2

Specific causes for some major train accidents identified by the Commissioners of Railway Safety were as below:-

- (i) Undetected rail fractures,
- (ii) Failure to carry out planned track renewal,
- (iii) Failure to conduct biennial testing of rails,

(iv) Failure to tighten or replace slack fish bolts,

(v) Undetected deficiencies in long welded track,

(vi) Failure to follow specification while using buffer rails in lieu to suitable expansion joints on cast iron sleepers,

(vii) Absence of effective rail sleeper fastenings for a part of sleepers laid,

(viii) Non-regrading of approaches of a level crossing,

(ix) Non-inspection of level crossing by the Safety Officer for over two years,

(x) Keeping open unauthorisedly a 'C' class gate which is normally to be closed to road traffic, and

(xi) Undetected design deficiencies and installation defects in the panel interlocking.

14. Level Crossing Accidents

About a fifth of level crossing accidents occurred in Northern Railway. The total number of such accidents has gone down since 1981-82, as shown in Table 22.

Table 22

Railway	1981-82	1982-83	1983-84	1984-85	1985-86
Northern	18	14	23	13	14
Other eight Railways	66	56	59	52	48
Total:	84	70	82	65	62

As at the end of March 1986 the total number of level crossings manned was 15,670 or 37 per cent out of 42,250 level crossings in existence.

In 1982 the Railways had identified 1600 level crossing as hazardous which should be manned on a sharing basis with State Governments - 1200 by Railways and 400 by States. However, only 912 out of these are manned by Railways and none by State Governments as at the end of November 1987.

15. Road over bridges/under bridges

Road crossings, road over/under bridges and other bridge structures that are found necessary even at the time of construction of a railway line are provided by the Railways at their cost. Cost of conversion of a level crossing into a road over or under bridge, due to increase in traffic density is shared between Railway and the State Governments with share of the latter being met from Railway Safety Works Fund. The progress on works of road bridges sanctioned in 1983-84 and earlier was slow. In several cases the Railways had completed their portion but the road bridges were not commissioned due to delays on the part of State Governments or local bodies in completion of approach roads. The number of such major incomplete over bridges was 29 with a total estimated

cost of Rs.7774.57 lakhs out of which Rs.1858.76 lakhs had been spent by March 1987.

16. Ultrasonic flaw detectors

Rails and welds in the track are to be tested periodically by ultrasonic flaw detectors in order to detect cracks and flaws not visible to the naked eye. Defective rails noticed during such inspections are replaced as early as possible to maintain safety. The periodicity is 2 or 3 years, depending on density of traffic but all tracks with rails over 10 years old are to be tested every year.

According to the periodicity prescribed, about 58000 km of track needed to be tested annually. However during 1985-86 only 37954 km were tested. It was seen that average number of flaws per km tested during 1985-86 was 0.241. Therefore, it is, statistically probable that the 20046 km of track not tested contained 4830 undetected flaws.

For conducting this test all the Railways have been provided with 106 ultrasonic flaw detectors costing Rs.45.58 lakhs. During 1985-86 fifteen machines were under repair in four Railways. The output per machine was also uneven among the Railways indicating scope for improvement. More details are given in Table 23.

Table 23

Railway	Number of machines as on 31 March 1986		Km tested per month per machine during 1985-86
	Total	In working condition	
Central	15	15	24.71
Eastern	13	10	26
Northern	15	15	55
North Eastern	6	6	21.4
Northeast Frontier	6	4	19
Southern	8	8	65
South Central	15	9	39
South Eastern	13	9	12
Western	15	13	30

3.3 Container traffic and establishment of Inland Container Depots on Indian Railways

1. Introduction

Containerisation is a concept introduced in mid fifties by developed nations to move cargos in large reusable and sturdy containers over rail, road and sea. This multi modal form of transport has now become an integral part of international trade. It has advantages of economy in use of packing materials to withstand strains of transport, door to door delivery and quick loading and unloading to facilitate more intensive utilisation of ships, train wagons, road vehicles etc.

In India, Railways made a beginning in 1966, introducing service with containers of 5 tonne capacity for use within the country to retrieve high rated traffic which had moved away from rail to road transport. With the rapid growth in international maritime trade using containers, major ports in India had to develop capacity for handling international containers of 20 and 40 tonnes capacity called 20 equivalent unit (TEU) and forty equivalent unit (FEU) respectively. They are termed as International Standard Organisation (ISO) containers. The Railways also equipped themselves for moving these containers from and to the ports.

In 1981-82, the Indian Railways entered the world map of ISO containers for movement of the country's import and export cargo from Inland Container Depots where customs formalities are completed saving hold ups and efforts at ports.

Till March 1987 seven Inland Container Depots (ICD) have been set up for handling ISO containers at Bangalore (August 1981), Guntur (April 1983), Coimbatore (December 1983), New Delhi (March 1984), Anaparti (April 1984), Guwahati (November 1985) and Ludhiana (August 1986). The number of ISO containers handled by Railway has

risen steeply from 3156 in 1983-84 to 32422 in 1986-87. These include also traffic between ports on Western and Eastern coasts to serve the concept of "land bridge" for avoiding movement over the longer and costlier sea route between these ports.

The Railways Seventh Five Year Plan (1985-90) includes an outlay of Rs.30 crores on establishing ICDs at 14 more stations. In view of the compulsions to handle growing ISO container traffic, the Railways had requested Rail India Technical and Economic Services Limited (RITES), a company under the control of Railway Board, for providing consultancy services on Railway planning, construction, movement etc., mainly in foreign countries, to prepare a feasibility report on setting up a Container Corporation to handle container traffic. The report has been received in October 1986 and decisions thereon are awaited (December 1987). This feasibility report has reviewed the efforts already made by the Railways to handle such traffic and has observed that the progress made in India towards containerising has been rather tardy. Earnings from container traffic was Rs.5.84 crores in 1985-86 and Rs.10.08 crores in 1986-87, which formed less than 0.2 per cent of goods earnings in these years.

2. Scope of Review

Audit undertook a review of the facilities provided for container traffic (including traffic in smaller 5 tonne containers within the country), and related operational aspects and the results are set out below.

3. Highlights

- Against a traffic potential of 79,200 and 94,000 ISO containers, the Railways moved only 21,614 and 32,422 ISO containers in 1985-86 and 1986-87 respectively.
- Of the seven ICDs, only New Delhi depot showed good performance. The ICDs at New Delhi and

Bangalore continue in their pilot project locations, with constraints in area, line capacity etc. The ICDs at Guntur and Anaparti were not run on sound business lines.

- The service suffered from operational inefficiencies like longer transit times, empty haulage, non-utilisation of BFR fleet, failure to develop land bridge concept and avoidable detentions at Madras Port.
- Domestic container traffic declined despite steps taken by the Railways. The shortcomings in the service noticed earlier continued to persist.

4. Traffic potential

It was estimated by RITES that over 50 per cent of the traffic at Bombay and Cochin Ports, 42 per cent at Madras, 38.6 per cent at Haldia and 28.3 per cent at Calcutta Port was containerisable and could move in

containers by road or by rail. Even assuming a low uniform percentage of 20 per cent, the potential for rail traffic in ISO containers, was of the order of 79200 in 1985-86 and 94000 in 1986-87 based on actual traffic at the ports for these years. Against these, Railways carried only 21614 and 32422 containers in these two years implying that Railways have been unable to win their share of container traffic.

The Railway Board stated in December 1987 that the Ministry of Commerce had kept the target of 50 per cent for containerisation of the total potential during the Seventh Plan; but judging by the past performance this target is unlikely to be achieved.

5. Performance of ICDs

During 1985-86, six ICDs were operational and the seventh at Ludhiana was set up in August 1986. Of all the seven, only the New Delhi depot showed good performance, by over-fulfilling its target as may be seen from Table 24.

Table 24

Sl. No.	Name of ICD	1985-86		1986-87	
		Target	Actuals	Target	Actuals
1.	Bangalore	4850	4854	NA	4043
2.	Guntur	600	162	600	526
3.	Coimbatore	NA	2317	2600	1747
4.	New Delhi	NA	11548	12700	18180
5.	Anaparti	1200	1026	1200	1410
6.	Amingaon	NA	30	2500	1744
7.	Ludhiana			NT	212
8.	Land-bridge	NA	1366	2000	1172
	Ad hoc movements	NA	311	500	3388
Total ISO containers moved by Indian Railways			21614		32422

NT : No target

NA : Not available

The ICD at Ahmedabad, planned to become operational from 1 February 1982, is yet to be commissioned, mainly due to the inability of Gujarat Government to acquire and make available all the land required for the Depot.

The ICD at New Delhi continues even now at the same location it was started as a pilot project. A full fledged terminal with adequate facilities at Tughlakabad was included in the works programme of 1981-82 and a sanction for Rs.1.5 crores was issued in 1986-87, but work has not commenced so far (November 1987). Due to constraints of capacity and space, the flats on which containers are placed were detained at the depot for as long as 12 days in some cases. The depot could not provide space for stuffing and destuffing of less than full container loads, a facility which is essential for attracting more traffic.

Similar constraints operated in Bangalore depot, continuing at the site of pilot project without shifting to Whitefield, where work for providing larger facilities, sanctioned in 1985-86 at an estimated cost of Rs.3.64 crores, are yet to be completed. Due to limited line capacity in this depot the inward traffic received in train loads of 30/31 flats at a time suffered delay ranging up to 9 days in placement for unloading. The total detention to wagons beyond the free time was 492.5 wagon days (in terms of 4 wheeler units) during the 5 days in January 1986, checked by Audit.

The Guntur and Anaparti ICDs were opened in April 1983 and April 1984 respectively mainly to handle tobacco export traffic via Madras Port, But they were not run on sound business lines. There was a delay of over one year between April 1983 and April 1984, in arranging a handling contractor at Guntur. High rates for transport of containers between the depot and premises of exporters, delay in providing approach road, handling equipment etc. discouraged traffic from Guntur ICD. Besides, the Anaparti depot

suffered from operational constraints resulting in average detention of 1.15 days per container. Both these depots could not achieve the modest annual targets of 600 containers for Guntur and 1200 for Anaparti during the years 1985-86 and 1986-87.

The Railway Board explained in December 1987 that for want of adequate investment it was not possible to provide full fledged facilities at the ICDs. Denial of funds for such short gestation projects resulted in diversion of this high rated traffic to road.

6. Operational inefficiencies

The trains with ISO containers between Bombay and Delhi are planned to travel fast, in 43 hours from Bombay to Delhi and 47 hours 10 minutes in the reverse direction. A check of trains mainly in September 1986 showed the actual time was much more. It was 75 hours 50 minutes for Bombay to Delhi, as against the target of 43 hours. In the reverse direction it was 66 hours as against the target of 47 hours 10 minutes. The system of monitoring the movement of containers also appeared to be inadequate.

Quite a number of ISO containers move empty from ports to the depots for back loading but they are yet to be utilised for carrying domestic traffic moving in this direction. Such utilisation would have led to overall economies. After this was pointed out by Audit the Railway Board stated in December 1987 that a proposal had been sent to Central Board of Excise and Customs for laying down a procedure for use of empty ISO containers for domestic cargo.

To meet the anticipated traffic of 1.01 lakh containers in 1985-86, manufacture of 1450 BFKI wagons at a cost of Rs.32 crores was taken up in 1984-85 but only 408 wagons have been built so far (March 1987). The existing stock of BFR wagons with the Railways

could have been used (with minor modifications at a nominal cost) by improving their turnaround and making them available for ISO container traffic. This was not done and Railways lost the opportunity for earning additional revenue on their BFR wagon fleet.

The land bridge concept involves moving ISO containers between ports on eastern and western coasts at a cost which is less than that by the longer sea route. Although there is some traffic moving in this fashion, the Ministry of Surface Transport has held so far that the traffic under this concept will not develop because rail transport is costlier than ocean freight between such ports. The Railways are yet to make a study of the potential for increasing the traffic (which is unconnected with Inland Container Depot) by taking into account flow of traffic, incremental cost of operation, appropriate reduction of rates etc.

At Madras port, detention to flats loaded with ISO containers to the extent of 3 days were noticed for want of examination and certification by Train Examiner of the Southern Railway, who carried out the train examination at a place far away from the container berth. In case a container is found by the Train Examiner to be not properly set on the flat, the flat has to be sent back to the container berth as the necessary handling facilities exist only there. Such detentions to flats could be avoided if train examination is done at the container berth. On this being pointed out in audit, the Railway Board stated in December 1987 that this matter should be tackled by the Port Trust.

7. Domestic Container Service

This service was started in 1966 with a view to retrieve a part of high rated traffic which had moved away from rail to road transport. However, the initial momentum in such container service could not be sustained and the number

of containers loaded had declined from 43,649 in 1981-82 to 38,432 in 1986-87. There was substantial decrease in loading in all the Railways except Southern Railway.

The service now operates on 12 broad gauge routes of the seven Zonal Railways except North Eastern and Northeast Frontier Railways, with a fleet of 2424 containers. During the period from April 1981 to March 1985, the Railway Board procured 782 additional containers at a cost of Rs.2.06 crores which proved surplus to requirements resulting in idle assets. It was only in January 1984 the Board stopped further production of 524 more containers.

The Railways also manufactured 8 flats in 1966 to carry these containers on metre gauge routes, if necessary after gauge transshipment. However, services in metre gauge sections were stopped in April 1982 and the flats are idling in North Eastern Railway.

A review on this domestic container service was included in the Report of the Comptroller and Auditor General of India on Railways for 1981-82. It was discussed by the Public Accounts Committee and covered in the 210th Report (1983-84) of the Public Accounts Committee (Seventh Lok Sabha). Therein the Committee recommended that in the interest of optimum utilisation of scarce resources of the country, the Railways should not only continue with the container service but also extend its coverage, stressing the need for the Railways to overcome the present shortcomings by reorienting their approach and strategies. The Ministry of Railways (Railway Board) had reported in April 1985 to the Committee action taken on its recommendations, indicating measures taken such as introduction of speed link service, container services on new routes on experimental basis, improving the performance of road units by getting the repair work done by accredited garages, etc. These measures have, however, not succeeded in arresting the decline in the service.

A review by Audit of the working of the domestic services during January-March 1987 disclosed that the services continued to suffer from same shortcomings as before:

- (1) On all the Railways the services suffer from excessive transit time and terminal detentions. The Speed Link Express had not proved successful on account of underload and en route marshalling. On the Madras - Bangalore Sector, the road transport covers the distance overnight while even the target fixed for container transit by Railways is two days. The targets were not adhered to and the actual time taken was generally twice the target on the Madras - Bangalore direction and thrice in the reverse direction.
- (2) The average detention to containers and flats by users on South Eastern Railway ranged between 69 hours to 99 hours and 12 hours to 14 hours respectively. The Public Accounts Committee recommended that the charges from the third day onwards should be sharply increased to act as a deterrent against detention of containers by the consignees/consignors. However, revision of demurrage charges in September 1984 provided for steep increases only for detention beyond seven days.
- (3) The road services continued to suffer from poor outage of road vehicles.

(i) During January 1987 the average number of trips per day made by each road vehicle of the Madras terminal was about 1.3 only and that in a number of cases the vehicles were detained at the delivery point up to seven hours. Madras terminal

receives daily 157 containers on an average which far exceeded the capacity for road haulage. The consignees were therefore required to take delivery of the goods by de-stuffing the containers at the Container terminal thereby defeating the objective of the service. One major customer alone was due to be refunded on this account a sum of Rs. 7.89 lakhs for traffic cleared during the years 1984 to 1986.

(ii) There was similar non-availability of road services at Shalimar terminal as less than one third of the fleet of road units was effectively available during the three years from April 1983 till March 1987. Consequently, deliveries of consignments were made at the Shalimar terminal instead of at Consingnee's premises resulting in loss of revenue.

(iii) At the Wadi Bunder terminal of Central Railway only six to seven road units out of 17 were in service per day during April 1985 to February 1987.

The Railway Board explained in December 1987 that for achieving the desired level of improvement in the domestic container service an integrated Inland Transport Corporation/Agency is the answer.

As recommended by the Public Accounts Committee, the Railways made a financial appraisal of the domestic container service for 1982-83 and 1983-84. The return on capital was computed as 14.78 per cent for 1982-83 and much lower at 8.98 per cent for 1983-84. For the years beyond 1983-84, the Board is yet to work out the return. They are likely to be lower in the subsequent years because of the decline in traffic.

CHAPTER IV
PURCHASES, STORES, WORKS, ESTABLISHMENT AND
OTHER EXPENDITURE - COMMENTS ON

4.1 Procurement of air brakes for BOXN wagons

In April 1981, the Ministry of Railways (Railway Board) invited offers from three firms 'A', 'B' and 'C' for 2,750 air brakes required for manufacture of BOXN wagons up to March 1983 and all of them responded.

After negotiations, orders at the rate of Rs.23,786 per set were placed in December 1981 on firm 'A' for 3300 sets and in March 1982 on firm 'C' for 1800 sets. Firm 'B', which did not get any order represented and an order was placed in December 1982 for 800 sets on it at a lower rate of Rs.23072 per set. At this reduced rate a further supply of 1230 sets was ordered on firms 'A' and 'B' in August 1983 and February 1984. Thus until the next open tender was invited in March 1984, a total of 7130 sets were procured, out of which 5100 were obtained at higher rates at an extra cost of Rs.36.41 lakhs.

At the time orders were placed at the higher rate, the production plan for BOXN and BVZC wagons in 1982-83 called for procurement of 5180 air brake sets. However, this was found to be too optimistic and in December 1982, the Board drastically pruned its wagon production schedule due to a number of constraints, reducing requirements of air brakes by 2800. The actual production of such wagons during 1982-83 consumed only 827 air brake sets. Thus an unrealistic forecast resulted in placement of orders for 5100 sets in December 1981 and March 1982 at higher prices. A more reliable estimation of

requirements would have not only saved a good part of the extra expenditure of Rs.36.41 lakhs but also idle outlay on air brakes not fitted to wagons.

In August 1983 it was specifically noted in the Railway Board, that subsequent to the placement of orders on firm 'C' in March 1982, there had been recession all over the world and that the prices in future should be lower than Rs.23072 per set. However, no fresh tenders were invited and at this rate a further supply of 1230 sets was ordered in August 1983 and February 1984, despite curtailment of wagon production in 1982-83 after placement of earlier orders for 5100 sets. When the next tender was opened in May 1984, the lowest rate obtained was Rs.17,950 per set which was 22 per cent lower than Rs.23,072 per set at which orders had been placed in August 1983 and February 1984. Had these orders been deferred for acceptance against fresh tenders, the Railways could have saved about Rs.63 lakhs.

The Board took seven months to accept this rate and orders were placed on seven firms in January 1985 at Rs.17950 per set for 7172 sets.

The next tender was floated in September 1985 and the lowest offer of Rs.19740 per set received was counter-offered to other firms at this rate. Orders at this rate were placed in February 1986 for 4409 sets on five firms without an indepth examination to check whether the increase of Rs.1790 over the rate of previous procurement (Rs.17950) was reasonable and without

conducting negotiations. The Railway Board stated in October 1987 that negotiations with firms were not normally held unless prima facie unreasonableness of price had been established.

Some of the firms represented in March 1986 against the quantity distribution. The Railway Board then decided to negotiate with the firms. One firm 'E' which received an order for 2672 sets out of 4409 already ordered did not participate in the negotiations. However, three firms agreed to supply at substantially reduced prices of Rs.17,052, Rs.17,412 and Rs.17,501 per set. Thus, failure to assess reasonableness of offer and to conduct negotiations resulted in extra expenditure of Rs.98.71 lakhs on 4409 sets ordered.

The Railway Board explained that during negotiations of prices for additional quantity certain firms offered very low rates with a view to grabbing larger share. This explanation is hardly tenable.

4.2 Avoidable payment on procurement of cartridge tapered roller bearings

For procurement of cartridge bearings for BOXN wagons the Railway Board invited global tenders in January 1981, against which offers from two indigenous firms 'A' and 'B' and from five foreign firms were received.

After conducting negotiations, orders were placed in July 1982 for 8000 bearings on an Italian firm at the rate of Rs.2962; 8000 bearings on a Japanese firm in October 1982 at the rate of Rs.3281; and 24000 and 8000 bearings on indigenous firms 'A' and 'B' in June 1982 and in October 1982 respectively at the rate of Rs.3385.

While the supply was completed in time by foreign firms the performance of indigenous firm 'A' was poor despite grant of a number of concessions as below:

- (1) It was given an additional order in April 1984 at the same rate, for 7200 bearings beyond the initial 24000. It, however, completed the supply only after two years. This delay entailed large scale stabling of wagons which were otherwise complete. The firm was not penalised and an amount of Rs.27.64 lakhs recovered as liquidated damages was later refunded to it.
- (2) Initially the contract with it provided for release of foreign exchange of Rs.282 lakhs for 24000 bearings and for the additional supply of 7200 bearings no foreign exchange was to be released. However, the contracts were revised to provide more foreign exchange and eventually the firm secured additional foreign exchange of Rs.55.28 lakhs for the entire supply, defeating the objective of indigenisation at higher prices.
- (3) The firm claimed compensation of Rs.10.26 lakhs under the clause in the contract providing for such compensation due to variations in foreign exchange rates. This claim was paid in August 1984 by the Board, although it should have been rejected because the delivery of supply against related foreign exchange release was delayed up to March 1983, beyond the stipulated month of September 1982.
- (4) The firm failed to discharge its responsibility to mount bearings supplied on wagons even after receiving full payment for supply. Consequently, there was considerable delay in commissioning of wagons which were otherwise complete.
- (5) Countervailing duties of Rs.77 lakhs on imported components were borne by the Railways though the contract did not impose this liability on the Railways.

(6) The firm did not produce American Rail Road approval for its product though considered very essential under safety requirements. Lack of such approval was cited by the Railway Board as the reason for procuring only 8000 instead of 16000 bearings from the Italian firm, which had offered the lowest rate of Rs.2962 per bearing in 1982.

4.3 Avoidable expenditure on procurement of wheelsets

Against the global tenders floated in May 1986 for supply of wheel sets, to be financed with assistance from International Development Association (IDA) and Organisation of Petroleum Exporting Countries (OPEC), eleven offers were received. The lowest offer, \$ 610 (FOB) per wheelset was that of a Polish firm. This offer was not considered by the Railway Board on the ground that Poland was not a member country of IDA and that its past performance was unsatisfactory because it had committed to supply 8000 wheel sets up to March 1986 but was able to supply only 4895 by then.

Orders were therefore placed in August 1986 on three other foreign firms for 23000 wheel sets at FOB rates varying from US \$ 960 to \$ 983 per wheel set and financed mainly with IDA and OPEC assistance and partly with free foreign exchange resources.

It was, however, seen in audit that the Polish firm was a regular supplier of wheel sets for many years. When the tenders were under consideration it was known that the application of Poland for membership of IDA was being processed and if Poland became member of IDA, at the time of award of contract, IDA will have no objection. Subsequently, the membership was confirmed on 21 July 1986, before the placement of orders on other firms. Further the past supply by the Polish firm had been affected due to extraneous causes as below.

- (1) Delay in finalisation of specification.
- (2) Delay in inspection arranged by Railways.
- (3) Non-availability of ships touching Poland.
- (4) Deferred delivery requested by the Railway Board due to lesser allotment of funds for wagon procurement.

According to Audit the rejection of this attractive offer of the Polish firm was injudicious and led to extra expenditure of Rs.1.30 crores, mostly in foreign exchange, on 2000 wheel sets offered to be supplied by it.

4.4 Injudicious cancellation of a contract

On the basis of global tender invited in July 1983, the Railway Board placed order in March 1984, on a Romanian firm for 8424 loose wheels at the rate of Rs.1604 per wheel. Exercising the contractual option to purchase more wheels without change in prices and conditions, the order was increased by 2527 wheels in October 1984. The same firm was given further orders in November 1984 for supply of 6176 wheels at the rate of Rs.2186 per wheel.

There was delay on the part of the firm to adhere to the time schedule for supplies and the Railway Board granted extension of delivery dates from time to time up to August 1985. The firm had attributed the delay to fall in production due to heavy snow fall early in 1985 as well as refusal of Romanian Government to grant export licence for 2527 wheels against orders placed at the lower rate of Rs.1604 per wheel. As this supply was not received even by March 1986, the Railway Board cancelled the order for 2527 wheels without financial repercussion. In replacement, wheels were procured from indigenous steel plants at the rate of Rs.5280 per wheel involving extra expenditure of Rs.13 lakhs.

However, the same course was not adopted by the Board for supplies at the higher rate of Rs.2186 which were also delayed and got completed only by January 1987.

The action of the Railway Board to cancel only balance of supply at lower rate while receiving supplies subsequently at higher rates resulted in additional expenditure of Rs.14.70 lakhs attributable to the difference in prices. Replacement procurement from costly indigenous sources also entailed further extra expenditure.

The Railway Board explained in July 1987 that cancellation proposal started as an exploratory effort to take risk purchase action but eventually such action was not found legally sustainable.

4.5 Procurement of minimum oil circuit breakers

The Ministry of Railways (Railway Board) invited tenders in March 1980 for procurement of single Phase Minimum Oil Circuit Breakers to be used as feeder breakers at the traction substations in Railway Electrification Projects. Two offers were received, the lowest one from firm 'A' at Rs.59,400 for each breaker and another from Bharat Electricals Limited (BHEL) at Rs.77,700 each. The firm 'A' had supplied such breakers in 1973 and 1977. Its offer was found to conform to the tender specifications except for the deviation in symmetrical short current breaking capacity of the breakers, which had been, however, accepted for the earlier supplies.

This time the lower offer of this firm 'A' was not accepted on the ground that the circuit breakers supplied earlier by it had failed in service and had not reached the required level of reliability. The only other offer of BHEL was found to be overrated as compared to specifications. This was held to be advantageous for future use with shunt capacitors and after mutual

discussions, orders for 89 breakers were placed in June 1981 and March 1982. The value of supplies by BHEL was Rs.68.17 lakhs as against Rs.53.76 lakhs computed at the lower rate of firm 'A'.

After carrying out prototype tests, the Railways accepted 70 breakers supplied by BHEL by July 1983. However, the breakers installed by Northern Railway failed in September 1982 immediately on energisation. After discussion with BHEL the Railway Board found the BHEL breaker unsuitable for service as feeder circuit breakers and cancelled the contract with BHEL beyond 70 breakers already received. Instructions were issued in March 1986 to use them only as transformer breakers. The requirement was met by placing orders on firm 'A' itself for 70 breakers in March 1984 at the rate of Rs.60000 each.

Out of the 43 breakers supplied by BHEL to Railway Electrification Organisation 13 are lying in damaged condition awaiting repairs by BHEL. The Board agreed to meet the expenditure of Rs.1.55 lakhs needed for repairing 11 breakers. None of the nine breakers supplied to South Central Railway could be installed as feeder circuit breakers. Information on performance in other Railways is being gathered.

The failure of the Railway Board to develop gradually BHEL as an alternative supplier and procurement of requirements from BHEL even before being satisfied fully about technical adequacy of its breakers led to unproductive outlay of Rs.68 lakhs on 70 breakers. It included an extra expenditure of Rs.12.39 lakhs arising out of high rates paid to BHEL for the supply as compared to rates in subsequent procurement from firm 'A' which had been passed over earlier.

The Railway Board stated in January 1988 that the failure rate of BHEL came down after modifications were evolved and carried out; that the breaker had by and large fared satisfactorily

compared to other makes of the similar type and that the problem had been limited to a few isolated locations which was attributed to abnormally excessive trippings and the breaker could not be blamed.

4.6 Delay in improvement of Tower Wagons

Tower wagons are used for day to day maintenance and to attend to breakdowns in over-head equipment on electrified sections. The present Mark II design of these wagons built in Jamalpur workshop of Eastern Railway was found to be inadequate for carrying out duties due to low speed and frequent failures of engine, clutch, laminated springs etc. The Railway Board, therefore, initiated action in January 1982 to develop a new design (Mark III) of tower wagons to overcome the defects.

However, even after five years the design has not been standardised and components obtained for development were diverted. The progress in the development work is indicated below:

- (i) Five fully indigenous power packs and four power packs with imported transmission were received in 1985 by Jamalpur Workshop entrusted with the development of the new tower wagons. Out of these two were diverted for narrow gauge rail car service on Gwalior-Sheopur Kalan section and the rest valued at Rs.81 lakhs, except one are lying unused.
- (ii) The order for wheel sets to be fitted to the new wagon was placed in June 1986 one year after the Jamalpur Workshop was directed to commence development.
- (iii) Only one prototype wagon of the new design has been built till February 1987 and its testing is still not complete.

Due to the delay in development, 24 wagons are being produced by Jamalpur Workshop in accordance with the earlier Mark II design, despite its proven inadequacy.

The Railway Board stated in November 1987 that two power packs were diverted for use on the narrow gauge rail cars as the services, which had been solely dependent on old and obsolescent steam locomotives, required urgent infusion of a better mode of traction and that the diversion of power packs had not caused any delay in the introduction of Mark III tower wagon.

4.7 Southern Railway - Procurement of MG EMU Motor and Trailer Coaches

With a view to affording relief to commuters in the Madras Beach-Tambaram Metre Gauge suburban section, the Southern Railway Administration proposed in October 1983 to increase the capacity of the trains by converting the existing eight car EMU trains to ten car formations by addition of one motor coach and one trailer coach to each train. The Railway Board approved in June 1984 the manufacture of additional stock of 25 motor coaches and 19 trailer coaches for the purpose, noting that the motor coaches and the trailer coaches should be supplied in matching pairs for effective utilisation.

Despite the need to ensure simultaneous availability of a motor, the motor coach with it and the trailer coach, for running the augmented trains, the Board placed order for 25 motors on firm 'A' only in September 1985, three months after 19 trailer coaches ordered on ICF were manufactured and delivered to Southern Railway. Even after placement of order, manufacture of motors could not be taken up by the firm for want of approval of designs/drawings by RDSO and no supply was received till October 1987.

The manufacture of motor coaches by ICF has already commenced in 1987-88 and would be completed in 1988-89. In the meantime the 19 trailer coaches produced at a cost of Rs.1.26 crores are lying unused for the intended purpose.

Belated placement of order by the Board for motors and delay in their supply has led to an idle outlay of Rs.1.26 crores, excluding expenditure on producing motor coaches by ICF. It was stated by the Board that the purpose of affording relief to commuters had been achieved by using four trailer coaches to run shuttle services between Tambaram and Chengalpattu (which service was being run with conventional coaches till then) and remaining coaches were being utilised for releasing existing trailer coaches for corrosion repairs and recabing. However, the objective behind the outlay, to provide relief to commuters in the Madras Beach - Tambaram section, still remains to be achieved.

4.8 Loss due to improper fitting

A Jaipur firm manufactured and supplied 9675 roller bearing axle boxes at a total cost of Rs.2.77 crores by December 1981.

According to the purchase contract, the firm was responsible for mounting them on wheel sets at the premises of the wagon builders, to the satisfaction of Research Designs and Standards Organisation (RDSO) and payment was to be made to the firm only on the basis of inspection certificate issued by RDSO. The payment was made though the mounting was neither inspected by the RDSO nor by RITES to whom the inspection work was entrusted subsequently.

In March 1982, a POL special goods train with such tank wagons met with an accident and the Enquiry Committee found that the accident was due to deficiency of locking plate in the mounted bearings and inadequate

inspection. The total loss due to the accident was estimated as Rs.71.14 lakhs. In all 776 tank wagons built were commissioned with such inadequate inspection and the Railway Board had not ascertained whether the locking plate had been fitted properly in all the tank wagons.

A demand notice for compensation of Rs.71.14 lakhs had been preferred on the firm on 30 January 1987 but it raised certain objections and no recovery has been effected so far (January 1988). The Railway Board held in November 1987 that no responsibility for loss could be attributed to RDSO.

4.9 Non-recovery of liquidated damages

The Railway Board placed orders on a firm in December 1981 for manufacture and supply of 13,690 roller bearing axle boxes for wagons by March 1982. A further order was placed in March 1982 for supply of 922 axle boxes by May 1982 at the same rates.

The firm could supply only 5387 roller bearing axle boxes by March 1982 and based on its requests, the Railway Board allowed extensions of delivery dates, subject to levy of liquidated damages. The firm completed the entire supply by February 1984, with a delay of nearly two years.

The delay in supply entailed large scale stabling of wagons resulting in loss of revenue. However, the Board reversed its order to recover liquidated damages and refunded in June 1985 liquidated damages of Rs.30.44 lakhs recovered earlier from its bills.

The Railway Board explained in January 1988 that according to the prescribed procedure the maximum possible amount of liquidated damages is held back by the Railway in all cases of delays and after the completion of the contracts the question is examined in the context of loss or inconvenience suffered on the basis of completion report received from the Railway. In

this case the refund was made on the basis of the completion report given by the nominated Railway Administration. However, it was not clarified why the Railway Board did not make an independent assessment of the loss as described above and confirm the recovery made instead of refunding Rs.30.44 lakhs.

4.10 Diesel Locomotive Works - Loss due to defective imports

The Railway Board approved in July 1973 import by Diesel Locomotive Works, Varanasi, of 30 sets of rewinding kits for traction motors of diesel locomotives, as they were not available indigenously from Bharat Heavy Electrical Limited (BHEL) which supplies the traction motors. They were received by June 1982 at a total cost of Rs.32.18 lakhs.

However, all the kits were found to be defective as the dimension of coils were different from those of the motors to be repaired. The Indian representative of the firm admitted in June 1983 that there were some incomplete operations on the coils before despatch and that the firm would furnish instructions with sketches and drawings for carrying out necessary repairs. The firm has failed to carry out repairs or to pay compensation to the Railways, even five years after the supply.

It was also noticed later in November 1985 that the import was uneconomical and costly as the customs duty of Rs.15 lakhs paid on the kits out of the total value of Rs.32.18 lakhs exceeded the amount payable for indigenous procurement.

The failure of the Board to assess the comparative economics of import and indigenous procurement as well as carry out proper inspection led to loss of Rs.32.18 lakhs.

The Railway Board stated in January 1988 that the firm had agreed to replace the supplies.

4.11 Eastern Railway - Procurement of an industrial X-ray machine

The Kancharapara workshop received in July 1981 an industrial X-ray machine from the Jamalpur workshop valued at Rs.2.93 lakhs to be used for detection of cracks and flaws in locomotives and EMU stock. It required special housing to prevent radiation exposure to workers. The planning for its housing was initiated in January 1977 and it was envisaged to be completed in August 1981. The construction, however, commenced only in May 1987. The long delay of over five years in taking up construction of housing for the equipment, led to an unproductive outlay of Rs.2.93 lakhs.

The Railway Administration stated in February 1987 that the machine had been housed temporarily in a room adjacent to the Roller bearing section of the workshop after modifications with lead sheet lining, etc. However, it was not utilised for want of proper staff.

4.12 Southern Railway - Loss due to unutilised stores

The Signal and Telecommunication Workshop at Podanur manufactures signalling and telecommunication equipment for the Railways based on the designs and drawings developed by the Research Designs and Standards Organisation and orders placed by the Railway Board. The Railway Board placed an order in January 1972 for manufacture of 2062 VN series relays on this workshop which procured necessary raw materials and components worth Rs.1.49 lakhs in 1973-74. While this manufacture was in progress, the Railway Board entered into a technical collaboration agreement with U.K. firm in June 1975 for manufacture of 'Q' series plug-in type relays which was an alternative for VN series relays. The production of 'Q' series relays started immediately, giving up use and manufacture of VN series relays. Consequently, no use could be made despite efforts, of the VN series relays, partly or fully

produced with raw material and components valued at Rs.1.49 lakhs. The expenditure proved infructuous, due to abandoning the use of VN series relays after placement of orders by the Railway Board for their manufacture.

On the other hand, the Railway Board did not place orders for 'QTI' and 'QTAI' series relays on the same workshop but allowed in 1975 import of certain components required for the manufacture with a total value of Rs.2.97 lakhs. No order was placed at all, as these types of relays were found unsuitable. This expenditure on import has remained unproductive so far.

Thus in all, the expenditure of Rs.4.46 lakhs incurred by the workshop on procurement of stores for manufacture of relays not found suitable for Railways proved infructuous or unproductive.

4.13 Southern and Eastern Railways - Disposal of scrap

Southern Railway

The Railway Board had directed in May 1982 the grant of incentive for payment of balance value and quicker removal of auctioned scrap by successful purchasers from Railway. It was to be given at half a per cent for payment of the balance sale value within half of the normal time allowed and at one per cent of the value of scrap removed for every week ahead of the terminal date notified for removal in the auction notice.

It was observed from the accounts of scrap auctioned by Southern Railway between July 1985 and June 1986 that the Administration granted extension of time for payment of balance value and removal of scrap in some cases beyond the dates notified for removal in auction notices. Normally this should have entailed the quashing of

the right for incentive for quicker removal. However, the Railway Administration allowed incentives of Rs.14.63 lakhs reckoned from the dates of removal during the extended periods. Corresponding claim for ground rent during the extended period amounting to Rs.37.62 lakhs was also forgone. Thus the Railway suffered a loss of revenue of Rs.52.25 lakhs although the primary object of quick clearance of scrap from railway area was not achieved.

Eastern Railway

The Railway Board also directed in May 1982 that the size of each lot of scrap auctions should have a value less than Rs.2 lakhs and not more than Rs.5 lakhs normally; and that reserve prices should be fixed for all lots in advance of auction. Eastern Railway offered two lots of 2000 and 1000 tonnes of scrap for the auction in January 1986. Reckoned with reference to the prices secured earlier the value of the lots were Rs.51.10 and Rs.25.50 lakhs far exceeding the prescribed maximum of Rs.5 lakhs. At the time of auction both were combined into one lot. No reserve price was fixed for disposal. The rate of Rs.2251 per tonne received was accepted although it was well below the rate of Rs.2555 per tonne received two months earlier in November 1985. The accepted rate of Rs.2251 was also substantially lower than Rs.2800 per tonne accepted in the next month of February 1986. Thus the disposal in January 1986 led to a loss of revenue of Rs.15 lakhs. The Railway Administration did not produce the relevant records, though called for, to determine the exact loss.

Audit also noted that the successful bidder for the combined lot of 3000 tonnes was given liberal concessions of removal in 210 days as against 60 days shown in auction notice and payment in 8 instalments within 210 days as against entire payment within 20 days as prescribed in auction notice.

4.14 South Central Railway - Development of goods complex at Sanatnagar and construction of by-pass line between Moula Ali and Sanatnagar

(i) Development of goods complex

The South Central Railway Administration decided in April 1976 to set up in two phases a goods complex for both Hyderabad and Secunderabad at Sanatnagar, based on a traffic survey conducted in 1971-72. The work was included in the works programme for the year 1978-79 and the first phase was completed in August 1981.

Phase I of the work sanctioned, at a cost of Rs.310 lakhs, consisted of

- Rs.65 lakhs for land acquisition in January 1978
- Rs.143 lakhs for stage I in April 1979 for shifting goods facilities to Sanatnagar from Hyderabad
- Rs.102 lakhs for Stage II in April 1981 for similar shifting from Secunderabad

The land acquisition was completed at a cost of Rs.49 lakhs. The cost of stage I and II works, estimated initially as Rs.245 lakhs was revised in February 1984 to Rs.341 lakhs by the South Central Railway Administration which is yet to be sanctioned by the Railway Board. In the meantime the actual expenditure was Rs.346 lakhs and the cost overrun was found to be mainly due to

- Rs.28.02 lakhs for provision of more roads (44900 sq. metres as against 20000 sq.metres anticipated earlier) and additional layers of topping and seal coat. The Railway Administration stated that these were necessary because of the black cotton soil of the site.
- Rs.15.04 lakhs for provision of more area in service building (1555 sq. metres instead of 759

sq.metres provided initially) for accommodation of canteen, electric sub-station, fire fighting etc. The Railway Administration stated that the addition was necessitated by closeness of the goods station at both Hyderabad and Secunderabad.

- Rs.10.43 lakhs for side drains planned later because the site was in marshy land.
- Rs.33 lakhs due to rise in prices.

A good part of the cost overrun was due to additional works which could have been foreseen and provided in the original estimates. The additional works had to be entrusted to the contractor already executing the works, increasing the contract value from Rs.12.11 lakhs to Rs.52.57 lakhs. For certain items of work provided in the contract which would have cost Rs.28.02 lakhs as per the original agreement, the Railway Administration had to pay higher negotiated rates involving additional payment of Rs.5.67 lakhs due to increase in scope of work.

The Railway Administration stated that the work surveyed in 1971, was planned and executed in 1981 and hence modifications in such cases were inescapable. The Railway Board indicated in December 1987 that the increase in the value of contract from Rs.12.11 lakhs to Rs.52.57 lakhs was under Vigilance investigation.

The facilities created at Sanatnagar after completion of the work could not be utilised optimally. As against capacity to handle 108 wagons per day in the new complex, the daily average traffic was only 61 wagons, during April 1985 to October 1986, which was even less than 65 wagons dealt with at Hyderabad & Secunderabad stations before the transfer of facilities. Still detention to wagons at the Sanatnagar complex was considerable, due to which extra detentions occurred in the "Kazipet - Sanatnagar"

and "Wadi - Sanatnagar" sections to wagons booked to Sanatnagar leading to loss of earning of the order of Rs.35 lakhs per month. The Railway Board stated in December 1987 that the detentions to wagons at the complex were primarily due to insufficient length of goods platform and in order to reduce the detention, additional works at a cost of Rs.278 lakhs were under execution.

(ii) Provision of a by-pass line between Moula Ali and Sanatnagar stations

Based on the survey report furnished by South Central Railway Administration in April 1974, for providing a by-pass line between Moula Ali and Sanatnagar, the Railway Board decided in October 1975, in principle, to construct this by-pass line. However, the detailed estimate of Rs.193 lakhs for land acquisition was sanctioned only in April 1978 and the estimate of Rs.425 lakhs for laying the by-pass line in June 1979.

The work scheduled to be operational by March 1984 is still incomplete at the end of March 1987 with the progress estimated as 89 per cent.

The South Central Railway recommended in August 1974 quick land acquisition as the areas in which the by-pass line was to be constructed were centres of industrial activity. Due to delay, till April 1978, in approval by the Board for land acquisition, and consequent difficulties in land acquisition the alignment had to be changed. The expenditure on land acquisition was Rs.401 lakhs as against initial approval for Rs. 193 lakhs inclusive of compensation of Rs.51.50 lakhs for providing a new firing range for Defence Department and Rs.15.04 lakhs for lands and building acquired for Bharat Heavy Electrical Limited (BHEL). The new alignment also necessitated additional expenditure of Rs. 37.45 lakhs on more bridges and Rs.54.23 lakhs for bridges already provided. The Railway Board stated in December 1987 that there were unforeseen delays and

hurdles in acquisition of land for the Defence Department and BHEL.

The revised cost of work (excluding land acquisition) was sanctioned as Rs.886 lakhs in July 1986 by the Railway and expenditure till the end of March 1987 was Rs.793 lakhs. The increase was Rs.461 lakhs or 110 per cent of the original cost, and was attributed to escalation in prices (Rs.292 lakhs), increase in scope of work (Rs.78 lakhs) and new bridges and additional spans for bridges (Rs.91 lakhs).

The execution of work disclosed substantial hard rock strata, resulting in increase of quantities for work with rock blasting from 9650 to 25250 cubic metres, offset by decreases in work without blasting. Consequently the cost of the contract as executed did not remain the lowest of tenders received. It exceeded by Rs.1.05 lakhs the value of another offer rejected earlier, as not being the lowest. This was due to inadequacy of soil samples taken by the Railway Administration at nominated intervals and not continuously.

There was also an extra expenditure of Rs.61.09 lakhs as the Railway Administration could not provide Railway land for borrow pits and consequently the contractor had to secure earth from outside Railway areas. The Railway Administration stated that due to sudden spurt of population in the urban area, acquisition of land for borrow pits could not be made.

(iii) A total amount of Rs.16.47 lakhs is due from a contractor towards risk cost, overpayments made on approximate measurements, non-return of steel/cement etc. in respect of five contracts awarded to him between July 1980 and October 1982. Claims amounting to Rs.46.39 lakhs preferred by him against the Railway were pending.

A contract awarded in December 1979 was terminated in February 1983 at the risk and cost of contractor as he

failed to complete the work even after granting extensions for a total period of 26 months. An amount of Rs.3.10 lakhs was assessed as due from the contractor towards risk cost. The contractor contended that the termination of the contract was illegal and preferred in November 1983 a counter claim of Rs.12.66 lakhs. In arbitration the contractor's contention was upheld and he was paid Rs.6.18 lakhs including the interest due.

An amount of Rs.33.50 lakhs was paid in March 1979 to the Defence Department towards the cost of 2.83 lakhs sq. metre of land to be acquired from that department based on the initial alignment. With the change in alignment (September 1978) only 2.03 lakhs sq. metres of land were taken over from the Defence Department. Refund of Rs.9.47 lakhs paid towards land not acquired has not been realised so far (October 1987).

4.15 Central Railway - Avoidable expenditure on repairs to a building

The construction of an electric rectifier traction substation including 22 KV power supply at Bombay V.T., at a cost of Rs.1.10 crores was sanctioned in January 1982 by the Railway Board, for providing better suburban train services. The sub-station proposed was to be built next to the New Administrative Building, after demolishing "Krishna Building" owned by the Railway, and used for residential purposes by four Railway officials. The highest offer of Rs.41,809 for demolition and removal of debris, received in July 1983, was accepted. Three of the officials vacated the premises in January 1984, but the fourth did not do so. Consequently, the contract was terminated in May 1984 without financial implications on either side. Subsequently, tenders were re-invited in July 1985 and work was awarded in August 1985 accepting an offer of Rs.34,500. The building was finally dismantled in November 1985.

In the meantime, the Railway Administration carried out departmentally urgent repairs to the building between August and September 1984 at a cost of Rs.1.10 lakhs, although three of the four officials residing therein had vacated and the remaining one had been offered alternative accommodation.

When the avoidability of expenditure was pointed out by Audit, the Railway Administration stated in October 1986 that the final decision regarding the location of the substation was taken only in June 1985 and before that date it was necessary to carry out the urgent repairs required.

Failure to provide in time alternative accommodation to all the officials occupying the Krishna Building, led to avoidable repairs costing Rs.1.10 lakhs, useful for less than a year before its demolition. There was also an incidental loss of Rs.6309 in revenue because of subsequent acceptance of a lower offer for demolition.

4.16 South Central Railway - Infructuous expenditure on provision of additional facilities

A firm, constructing a factory at Gondiparla situated at a distance of seven kilometres from Alampur Road station sought a siding to its factory but decided in May 1976 to defer the work as its cost would be Rs.30 lakhs. In January 1978, the Railway Administration agreed to the request of the firm to provide certain additional facilities at Alampur Road station for unloading of raw materials and chemicals and also for despatching the finished products from its factory after commencement of production, assessing the additional daily traffic at 60 wagons inward and 10 wagons outward. The factory started production in 1979. The work of providing additional facilities at Alampur Road station, was awarded in September 1980, for completion by March 1983. In November 1981, the firm requested the Railway Administration to provide also

a rail link up to its godown to be constructed on the railway land leased to it in October 1979. Pending finalisation of this proposal, the Administration asked the contractor in February 1982 to stop the work and by that time an expenditure of Rs.4.75 lakhs had been incurred on the work. In February 1985, the firm finally asked the Railway Administration to drop the proposal for rail link. The Railway Administration, however, decided in February 1986 to complete the work of additional facilities at the station as an operational necessity at a cost of Rs.10.10 lakhs.

It was seen that the additional facilities at the station would not be necessary for railway operations until the siding to the firm was constructed. The maximum actual average daily traffic at the station during 1985-86, more than five years after the factory started production, was only 8 inward wagons and 5 outward wagons as against 60 and 10 respectively forecast earlier. Thus the expenditure of Rs.10.10 lakhs on the work proved unproductive. Even if some facilities are put to use, the infructuous component spent on earth work and bridge work would be Rs.1.69 lakhs.

The loss arose due to the failure of the Railway Administration to get clear commitment and deposits from the firm before undertaking works for which the firm was the sole beneficiary.

4.17 Southern Railway - Loss on account of failure to observe the provisions for enforcement of risk action

Six contracts (five for collection of ballast alongside the track and one for provision of battery and relay rooms at certain stations of Mysore Division) for a total value of Rs 13.60 lakhs were awarded to contractor 'A' during 1981. However, in view of his very poor performance, all the contracts were terminated in April 1983 at his risk and cost. Open tenders

were invited between May 1983 and March 1984 for the left over works. The same contractor also quoted, and was found to be lowest for five works for collection of ballast and the only tenderer for the sixth work. His offers were, however, not considered on the ground that he had failed in the previous contracts and that in one tender the Chief Engineer, Madras had ordered that the contractor may not be awarded any ballast contract in future. All the contracts were, therefore, awarded between August 1983 and May 1984 to other contractors, involving an extra cost of Rs.9.5 lakhs deemed as recoverable from contractor 'A'.

However, the legal advice obtained in December 1984 showed the risk action against the defaulting contractor could not be sustained in the Court of Law because

- (i) the defaulting contractor was not given an opportunity to participate in the risk tender in order to enable him to mitigate his losses,
- (ii) a contractor could not be prevented from competing in public tenders on the advice of Chief Engineer unless he was black listed,
- (iii) in the case of one tender (for Battery Relay rooms) at Chickjajur the personal approval of the Chief Engineer for rejecting his offer was not taken.

Therefore, in December 1984, the Railway Administration decided to finalise all the terminated contracts of contractor 'A' without any risk action, enforcing only a token penalty of Rs.3400 as compared to the extra expenditure of Rs.9.50 lakhs caused by his poor performance.

Thus, due to various procedural lapses, as highlighted in the legal opinion, the Railway Administration had to forego a claim for recovery of

Rs.9.47 lakhs, towards risk action. The Railway Board stated in December 1987 that risk action had to be given up in view of the legal opinion.

4.18 Central Railway - Non-recovery of risk cost from a contractor

The work of construction of quarters at Kalyan (value of Rs.6.75 lakhs) awarded to contractor 'A' in May 1973 was due for completion by November 1974. He failed to complete the work within the stipulated period, and the Railway Administration terminated his contract in April 1975. The left over work was entrusted to another contractor in July 1976 for Rs.7.35 lakhs at the risk and cost of the defaulting contractor 'A' and was completed in December 1977. However, an amount of Rs.1.65 lakhs towards risk cost found to be recoverable from 'A', is still to be recovered although 12 years had elapsed since the termination of his contract in April 1975.

The Railway Administration stated in September 1987 that legal opinion was obtained to file suit against the contractor and a notice was issued in August 1987.

4.19 Eastern Railway - Non-realisation of interest and maintenance charges for assisted sidings and a level crossing

A. Sidings

Under the rules for construction and working of assisted sidings the siding owner is required to pay annually interest and maintenance charges on the cost of the portion of the siding borne by the Railway, inspection charges in respect of the portion borne by the owner and establishment charges.

The Eastern Railway Administration constructed an assisted siding to serve the Obra Thermal Power Station of the Uttar Pradesh Electricity Board and commissioned it in January 1966. The

Electricity Board has failed to settle its account with the Railways and dues outstanding against it total Rs.91.09 lakhs as on March 1987 representing interest and maintenance charges (Rs.46.77 lakhs) for the period from April 1981 to February 1987, cost of establishment (Rs.41.17 lakhs) for the period 1983-84 to 1984-85 and accident repairs (Rs.3.15 lakhs) for the period from 1978-79 to 1986-87.

The Railway Administration stated in August 1987 that the party had lodged in 1986 a complaint with Railway Rates Tribunal, Madras about the recovery of these charges and other matters and that the quantum of railway dues outstanding could be assessed only on disposal of the case.

B. Level Crossing

A level crossing gate was provided in May 1976 at the request of Central Coal Fields Ltd. as a deposit work and two gatemen were posted by the Railway to operate the level crossing. However, neither an agreement was entered into nor written undertaking obtained from the company for recovery of related operation and maintenance charges for nine years. Only in January 1986, a demand was raised and so far (September 1987) no recovery of the amount of Rs.2.37 lakhs due from the company till the end of March 1986 has been effected.

4.20 Northeast Frontier Railway - Non-recovery of maintenance charges for private sidings

The owners of private sidings are required to pay charges on the portions of the sidings maintained by the Railway. For assessing such charges, apart from the actual length of the track maintained, weightage is given to the number of points and crossings at the rate of 0.10 km for each.

Maintenance charges for a private siding at Namrup in Dibrugarh Division, were being recovered only for 9.071 km

representing the actual track length of the original siding, excluding 6.906 kms attributable to the extensions to the siding provided in December 1974 and February 1977 and to the weightage for 31 points and crossings. On this being pointed out in audit in May 1985, the Railway Administration preferred bills for the correct chargeable length of 15.977 km. with effect from April 1986. Arrears of Rs.8.74 lakhs for the earlier periods are yet to be recovered (December 1987).

A further review by audit indicated that in 20 other sidings on the Railway the weightage for points and crossings had been ignored resulting in short recovery of maintenance charges of Rs.18.78 lakhs. The Railway Board stated in December 1987 that action had been initiated to verify physically all private sidings and to work out the charges recoverable.

4.21 Southern Railway - Avoidable payment of penal charges due to delay in execution of agreement with the Tamil Nadu Electricity Board

High Tension (HT) power supply is being taken by the Southern Railway Administration from the Tamil Nadu Electricity Board (TNEB) at Ennore and Avadi Traction sub-stations (TSSs) from 9 March 1979 and 21 September 1979 respectively for Broad Gauge electric traction with sanctioned maximum demand (MD) of 5.6 MVA at Ennore and 4.4 MVA at Avadi. The Tamil Nadu Electricity Board introduced a two part tariff from May 1982 under which apart from the energy consumed, the MD charges were also payable. Further, whenever actual MD exceeded the sanctioned MD, penal charges at double the normal rate is leviable on such excess consumption.

On an application by the Southern Railway Administration in June 1982,

the TNEB sanctioned in November 1982, additional load of 6.9 MVA at Ennore and 8.1 MVA at Avadi TSS, thereby raising the sanctioned MD at both the TSSs. The sanction stipulated, inter alia, that an agreement should be executed before effecting the supply. No agreement was, however, entered into as the Railway Administration contested the revision of the tariff and also the format of the agreement. Consequently, TNEB billed the Railways with reference to the MD, sanctioned prior to the additional load. This led to levy of penal charges for excess over sanctioned MD, although no excess occurred over and above the revised MD. The Railway Administration had to pay the penal charges of about Rs.2.15 crores up to February 1986.

In respect of another TSS at Arakkonam commissioned in October 1983 with a sanctioned MD of 6.0 MVA, enhanced MD of 12.5 MVA was sanctioned by the TNEB in October 1984. Here again due to non-execution of agreement with the TNEB, the billing was done with reference to lower initial load and the Railway Administration had to pay about Rs.1.33 crores as MD penal charges from December 1983 to February 1986.

The question of refund of the penal charges was taken up with Tamil Nadu Government and the Ministry of Energy, Government of India, but the latter pleaded inability to issue any directive to the State Electricity Board. Refund of the penal charges of Rs.2.15 crores is yet to be made by the TNEB to the Southern Railway (January 1988).

The Railway Board explained in December 1987 that the unilateral revision of tariff by TNEB and one sided format of the standard draft agreement were unacceptable to the Railway. The Railway Administration executed, thereafter under protest, agreements in respect of all the three TSSs in March 1986.

4.22 South Central, Central and Eastern Railways - Heavy losses in the interchange traffic with Port Trust Railways at Mormugao, Bombay and Calcutta Ports

The Port Trusts of the Mormugao, Bombay and Calcutta Ports operate mainly the wagons owned by the Indian Railways for handling import and export traffic moved by rail. Agreements are entered into between the individual Port Trust and the Railway Administration concerned about the hire charges and demurrage charges to be levied by the Port Trust on wagons of Indian Railways operating inside the Port Trust area. A review in audit of the interchange traffic between the Port Trust Railways and trunk Railways disclosed significant losses due to non-revision of wagon hire charges and demurrage charges by the Port Trusts, maintaining parity with the rates in force on the trunk Railways and non-recovery of cost of repairs/damages to wagons received from Port Trust Railways as detailed in the succeeding paragraphs.

Mormugao Port Trust (MPT)

An agreement entered into in October 1976 between the Port Trust and the South Central Railway Administration, effective from April 1974, provided, inter alia,

- (i) payment of hire charges to the Railway Administration in respect of the Indian Railway wagons used at the port at the rates prescribed by the Railway Board from time to time,
- (ii) revision of rates of demurrage charges by 30 June 1976 levied by the Port Trust Railway to bring them on par with the rates in force from time to time on the Railway Administrations and retention of demurrage charges by the Port Trust, and

(iii) in the event of the demurrage charges collected in a year ending 31 March on Indian Railway wagons exceeding the hire charges paid to the Railway Administration, the Port Trust shall pay such excess to the Railway Administration.

Although the Railway Board had twice increased the rates to Rs.36 and Rs.56 per day with effect from 1 June 1981 and 1 July 1985 respectively the Railway Administration recovered the wagon hire charges from the MPT only at Rs.17.70 per day per MG 4-wheeler. Even after the under-recovery was pointed out by Audit in March 1984, the revised rates were brought into force only from 1 November 1986, resulting in less recovery of hire charges to the extent of Rs.4.72 lakhs for earlier periods. The South Central Railway Administration explained that the lapse had occurred due to non-receipt of the notifications on the Hubli Division.

The MPT collected demurrage charges from consignees/consignors only at 7 paise per tonne per hour from April 1974 till March 1987 although in the meantime demurrage rates were revised upwards thrice by the Railway Administration to reach a range of 60 to 100 paise per tonne per hour.

The proposal of MPT for revision of the rate of demurrage charges remained under the consideration of the Central Government for over ten years from September 1976 to May 1987, when a notification for recovery of demurrage charges by MPT at the rates applicable on Indian Railways was issued. The loss of revenue sustained was approximately Rs.57.43 lakhs between April 1977 and March 1987 due to the very low rates of demurrage levied by MPT.

The Railway Board admitted in November 1987 that there had been a delay on the part of South Central Railway to realise hire charges and stated that action is on hand to effect recovery of arrears.

Bombay Port Trust (BPT)

The agreement entered into in 1914 by the Central Railway with Bombay Port Trust did not provide for recovery of cost of repairs to sick wagons. It was mutually agreed in 1940 that the repairs to all wagons interchanged would be carried out by the Central Railway at the cost of the BPT Railways. However, cost of repair charges claimed for fair wear and tear and for all major defects caused to wagons due to accident/derailment while working on BPT Railways amounting to Rs.20.81 lakhs for the period 1968-69 to 1986-87 had not been recovered so far.

Calcutta Port Trust (CPT)

The agreement executed in 1922 provided for joint examination of all wagons interchanged for assessing defects/deficiencies and reimbursement by CPT of all repair charges of wagons within the CPT Railway area. However, the Eastern Railway has failed so far to prefer bills for cost of repairs. Specifically no recovery was effected for 579 wagons drawn out from CPT Railway area in damaged condition and repaired in 1980 at a cost of Rs.5.81 lakhs. The Railway also suffered losses due to large scale theft of wagon fittings in CPT area, due to inadequate security.

CPT also failed to pay the Indian Railways the amounts due. The outstandings owed by CPT to the Eastern Railway at the end of May 1986 amounted to Rs.6.62 crores, consisting of Rs.4.58 crores for wagon hire charges, Rs.0.37 crore towards establishment charges and Rs.0.64 crore towards apportioned liability for settled compensation claims. The heavy outstandings were attributed to non-observance by CPT of Railway tariff rules regarding prepayment of freight, issue of memo invoices, as well as non-remittance of station earnings daily during certain periods, apart from non-payment of hire charges. Further, sale proceeds of auctioned unclaimed/unconnected Railway consignments realised by CPT amounting to Rs.54.88 lakhs had also not been paid to the Railways.

The Railway Board stated in November 1987 that the Railways would be directed to expedite the recoveries.

4.23 South Central Railway - Extra expenditure on avoidable litigation

Mention was made in para 1.12(c) of the Advance Report of the Comptroller and Auditor General of India for the year 1982-83 - Union Government (Railways) regarding the outstanding claims of Food Corporation of India due to non-delivery of 5,830 missing wagons since 1969. Thereupon the Public Accounts Committee in its 41st Report (1985-86) recommended joint action by the Railways and the Food Corporation of India in order to settle the claims of Food Corporation on account of missing wagons.

Besides, the Public Accounts Committee in its 154th Report (1974-75) had recommended resolving of disputes between government departments and enterprises by mutual consultation or through arbitration and in compliance thereof suitable instructions were issued and circulated in 1976.

A review in audit of the action taken by the Railway Board and the Food Corporation of India on these recommendations of the Public Accounts Committee indicated that all disputes in respect of missing and unconnected wagons had been resolved by the Railway Board and the Food Corporation of India except in respect of Northeast Frontier Railway and 131 court cases (as on 31 March 1985) filed by the Food Corporation of India against the South Central Railway Administration. Seventeen cases out of these had been dismissed by the courts, 35 were decreed against the Railway and 33 cases were settled out of court. There were still 46 suits with a money value of Rs.32.66 lakhs, pending in January 1987.

In June 1984 the Food Corporation gave an undertaking not to file suits against the Railways as the Railway

Board in turn agreed not to repudiate the claims on the plea of claims being suit-barred. However, no agreement could be reached on withdrawal from courts of pending suits for settlement out of court.

The expenditure on litigation incurred so far by the South Central Railway Administration on 85 suits already disposed of out of the 131 suits filed by the Food Corporation of India, amounted to Rs.2.41 lakhs, excluding some payments yet to be made to the Railway's advocates in 21 cases.

4.24 Incorrect deployment of Railway staff for valve operations at POL loading points

In July 1982, the Railway Board decided that at POL loading points the closing and opening of valves, closing of man-hole covers, tightening up of the bottom plates during and after the loading operations, should be deemed to be a part of the loading operations of tank wagons for which Railways are not responsible. If the Oil Companies desired deployment of railway staff for this purpose, the cost thereof was to be recovered from them. In November 1982, the Railway Board also instructed the zonal railways to withdraw the Railway staff wherever deployed at the cost of Railways, after giving due notice to the Oil Companies.

On the Western Railway, the train examining staff continued to perform these jobs at two POL loading points of the Indian Oil Corporation siding at Bajuva and Sabarmati. The cost of staff recoverable from the Indian Oil Corporation for the period up to September 1987 worked out to Rs.24.55 lakhs. Neither was any recovery of cost effected nor were the staff withdrawn so far (January 1988).

Test check also disclosed recoveries due on this account from Oil Companies as Rs.80.12 lakhs on the Central

Railway, Rs.6.27 lakhs on the North Eastern Railway and Rs.5.21 lakhs on the Northeast Frontier Railway. The Railway Board admitted in January 1988 that there had been some delay in preferring bills and assured that the matter would be pursued vigorously.

4.25 Northeast Frontier Railway - Loss due to irregular establishment of a Departmental Catering Unit at Darjeeling station

The Darjeeling-Himalayan section of the Northeast Frontier Railway has good potential for substantial tourist traffic. However, due to disruption in traffic on account of land slides, limitation of seasonal traffic to about six months in a year and uncertain weather prevailing even then, train services on this section, remained suspended for 336 days and 175 days during the calendar years 1981 and 1982 respectively.

A tea-stall under a vending contractor had been providing satisfactory catering service at Darjeeling till April 1983. Thereafter a departmental restaurant named "Kanchanjungha Restaurant" was opened in April 1983 after renovating the existing officers' Rest House at a cost of Rs.2.92 lakhs without preparing any estimates, with the expectation of earning a net profit of about Rs.2120 per month. Thirteen non-gazetted posts were sanctioned for operation of the restaurant in two shifts.

The restaurant failed to yield the expected returns and incurred a net loss of Rs.4.75 lakhs during the four years ending 31 March 1987 as compared with the anticipated profit of about Rs.1.02 lakh for this period. As against proposed annual sales turnover of Rs.3.4 lakhs the actuals ranged from Rs.1.33 lakhs in 1983-84 to Rs.0.34 lakh in 1986-87. The volume of

sales has also declined in recent years.

tention was, however, not supported by evidence available to Audit.

The Railway Administration stated in September 1987 that the departmental restaurant was set up as an amenity to the users and hence no financial justification was necessary. This con-

The Railway Board has since stated in December 1987 that it had decided to close down this unit where only five out of the sanctioned thirteen posts are being operated.

CHAPTER V

EARNINGS

5.1 Northern Railway - Loss of revenue due to incorrect charging of passenger fares

Rule 255 of Indian Railway Conference Association Coaching Tariff No.23 Part I, Volume I provides that all journeys other than those by the 'normal and reasonably direct' route be deemed to be circular journeys and such journeys will be charged for as two single journeys, the length of each single journey being taken as half the total distance. The 'normal and reasonably direct' route between two stations should be taken to be the shortest route or any longer route if the distance does not exceed the distance via the shortest route by more than 15 per cent.

A test check by Audit of passenger tickets of 14 stations on Northern Railway revealed that in the case of tickets issued by longer routes where the distance differential was more than 15 per cent of the distance by the 'normal and reasonably direct' route (shortest route), passenger fares were charged on the continuous distance giving the benefit of telescopic rates instead of two single journeys as provided under the rule. The incorrect charging of passenger fares resulted in undercharges and loss of revenue to the extent of Rs.3.94 lakhs at these stations for the period 1 June 1981 to 10 July 1987.

Though the Audit objection was communicated in September 1984 the Railway Administration referred the matter to the Railway Board only in

July 1985. The Railway Board upheld the Audit view and advised the Railway Administration in September 1986 that no change in the existing rule was called for. The Railway Administration, accordingly, issued necessary instructions in September 1986 to all concerned for compliance.

On the Southern Railway clarifications regarding charging of fares by longer route under the provisions of rule 255 of Coaching Tariff were notified only in June 1987. The undercharges in collection of fares was assessed in audit at Rs.1 lakh per annum. Information about undercharges on the other Railways has not become available so far.

The Railway Board explained in January 1988 that having regard to the known preference of the public to undertake journeys by the fastest available route, a proposal to extend telescopic rate to passengers travelling by a route longer than 15 per cent of the 'direct' route was under consideration.

5.2 Northern, South Central, Central and Southern Railways - Short realisation of freight charges on fish and other perishable traffic

As per rules in force since 1 January 1983 no package exceeding 150 kilograms in weight will be accepted for carriage as parcel except by previous arrangements; when accepted such packages exceeding 150 kgs in weight were to be charged at 25 per cent above the normal

tariff rate. In respect of perishable parcels required to be cleared by Mail/Express Trains, the maximum weight limits applicable were:-

(i) Mutton/Liver/Fish including ice - 150 kgs. per package

(ii) Other perishables - 50 kgs. per package.

The Railway Board reduced on 30 January 1986 the maximum weight limit of fish with ice from 150 Kgs. to 100 Kgs. per package and directed the Railway Administrations to give fish merchants one month's notice to change the practice.

A review in audit of perishable traffic at certain selected stations on the Northern, South Central, Central and Southern Railways disclosed undercharges of Rs.13.76 lakhs as detailed below:-

(i) On the Northern Railway, 12 stations had not levied the 25 per cent extra charge above the normal rate since January 1984 in respect of

(a) fish packages with ice weighing more than 150 Kgs. each and cleared by Mail/Express trains resulting in undercharge of Rs.5.37 lakhs for the period January 1984 to December 1986.

(b) other perishables weighing more than 50 Kgs. and cleared by Mail/Express trains, resulting in undercharges of Rs.4.84 lakhs for the period January 1984 to 31 December 1986.

The instructions of January 1986 reducing the weight condition from 150 kgs to 100 kgs per package for purpose of levy of 25 per cent extra charge in respect of fish consignments had also not been implemented by these stations till December 1986.

(ii) On the South Central Railway, the instructions revising the weight condition of fish consignments from 150 kgs to 100 kgs each were advised by the Headquarters to the Divisions on 17 February 1986. Test check in audit of the accounts of Vijayawada Division (September 1986) disclosed that revised weight limit of 100 Kgs. for packages booked by Mail/Express trains were not implemented till August 1986, leading to undercharges.

The Railway Administration stated in September 1987 that the staff of Vijayawada Division were not aware of the revised instructions; however, it came to notice during June 1986 when destination stations on Southern Railway collected the undercharges; thereafter proper collections were effected from August 1986. A review of all fish booking stations of the South Central Railway by the Railway Administration, revealed total undercharge of Rs.1.51 lakhs of which Rs.0.81 lakh had been realised so far (September 1987).

(iii) A test check of fish traffic booked at Bombay V.T., Dadar, Khamgaon and Katni stations on Central Railway disclosed undercharges amounting to Rs.1.19 lakhs up to 31 August 1986 due to non-implementation of revised weight limits. An additional undercharge of Rs.76903 was raised in internal check at Bombay V.T. station by the Travelling Inspectors of Accounts for the further period from 1 September 1986 to 30 November 1986.

(iv) On the Southern Railway, a review of the local outward traffic for the period from 18 March 1986 to 9 April 1986 in

respect of seven stations revealed undercharges of Rs.7583, as instructions were given effect to only from 10 April 1986.

The Railway Board stated in January 1988 that action against the staff responsible for violating the instructions would be taken up.

5.3 Central and Southern Railways—Loss of revenue due to non-observance of rationalisation orders

As per the Rationalisation Scheme effective from 1 June 1985, factories having both BG and MG sidings should book consignments for movement entirely on BG or MG route, without any transshipment. The freight also should be recovered for the actual distance transported. It was, however, seen that train load traffic of food grains from Food Corporation siding, Agra Cantt. on Central Railway to Milavittan on Southern Railway was moved by the all BG route of 3337 km, but was charged for 2744 km only, based on the shortest route involving gauge transshipment. The Southern Railway raised additional debit against Central Railway of Rs.66,024 towards this under recovery of freight and it was accepted by Central Railway in March 1986.

A further check in audit disclosed three more cases of similar undercharges amounting Rs.1.04 lakhs.

The Central Railway Administration stated in August 1987 that as per the Rationalisation Scheme, the consignors have an option to elect longer route not involving transshipment and where the consignors did not exercise this option, freight was to be charged by shorter route involving transshipment and hence efforts are being made to reverse the debits raised by Southern Railway. However, according to Audit no such option was available under the Rationalisation Scheme.

5.4 South Central Railway - Loss sustained due to longer haulage

Coal from broad gauge stations moved regularly to the siding of a cement factory at Bugganappalli station on the Guntur-Dronachallam Metre Gauge section of the South Central Railway by a longer route involving transshipment at Tadepalli. But recovery of freight was made only for a notional shorter route involving transshipment at Moula Ali. The longer haulage over 90 kms involved undercharge of Rs.7.78 lakhs per annum with reference to the quantum of such traffic during October 1985 to March 1986.

The Railway Board held that the coal traffic was moved by the longer route to obviate the need for moving MG empties for supply at Moula Ali Transshipment Shed and to utilise the MG stock available at Tadepalli.

However, Audit is of the view that it would be appropriate to declare the actual route used as the chargeable route for recovery of freight, so that such undercharges would not occur in future.

5.5 Southern Railway - Loss due to non-appointment of contractor for Mobile Booking Service

Mobile Booking Service (MBS) is operated by the Railway to attract traffic to rail without any restriction on the type of traffic to be moved. Under the scheme, the Railway appoints contractor to canvass traffic, lift the consignments from the premises/godowns of the consignors and transport them by road to rail heads for loading and despatching. An assured daily quota of wagons is made available to the contractor for the service.

MBS was introduced at Coimbatore in March 1972 for smalls traffic and was extended to cover wagon loads in July 1972. The service earned Rs.21.10 lakhs during 1981-82.

In October 1982, the Divisional authorities banned booking of low priority traffic under MBS on the ground that the contractor had failed to capture high rated traffic. On receipt of representations from the trade, the Railway Administration removed the ban in January 1983 but the contract with the existing contractor, which expired in June 1983, was not renewed. A fresh contract for the service was entered into only in February 1985 and there was no earning from July 1983 till February 1985. But thereafter the service failed to be attractive and yielded only Rs.0.16 lakhs during 1985-86.

The imposition of ban for four months and non-appointment of a contractor for 20 months, for this service yielding revenue, led to an estimated loss of Rs.20 lakhs per annum.

The Railway Administration stated in June 1987 that because of the ban imposed the contractor lost interest in working the service and discontinued working even after the ban was lifted by the Divisional authorities. Accordingly the contract which was due for renewal in June 1983 was not renewed. A fresh contract after call of tenders etc. was finalised in February 1985 for the Mobile Booking Service but it was not able to win back the traffic lost due to long suspension of the service and also there was a general recession in the traffic offered at the Coimbatore goodshed. The Railway Administration also stated that the award of fresh contract could not be finalised early due to various procedural reasons.

5.6 South Central Railway - Incorrect nomination of stations for booking train loads

To achieve economy in cost of operation and improve turnaround of wagons, the Railway Board introduced with effect from 1 January 1982, a new classification for train loads having minimum weight of 1300 tonnes for sugar and 1400 tonnes for other commodities on

BG. For attracting traffic in such train loads, the rate of freight for them was fixed lower than individual wagon load rate. In September 1982 the Railway Board also instructed the Zonal Railways to notify the stations/sidings which were allowed to book/receive train load consignments. Accordingly, the South Central Railway Administration nominated in February 1983 a number of stations including Kolhapur, Sangli, Miraj, Karad and Lonand on Pune-Miraj section to deal with train load traffic, inward or outward.

In order to ensure that benefit of lower train load rates is given only to traffic moving in bulk of 1300/1400 tonnes, the Railway Board clarified in March 1983 that if the net trailing load on any section en-route was less than the minimum weight prescribed for the application of the train load rates, the benefit of train load classification would not be admissible. Since the maximum permissible trailing load in Pune-Miraj section was only 1000 tonnes, and less than the minimum for train load rates, the South Central Railway should have withdrawn the facility of train load rate at the five stations of Kolhapur, Sangli, Miraj, Karad and Lonand in this section. This was not done and train load rates were made applicable to train loads, booked/received at these five stations and attached to trains which had net trailing load between 578 and 1096 tonnes only, as compared to 1300/1400 tonnes prescribed by the Board. This resulted in loss of revenue amounting to Rs. 161.54 lakhs (July 1983 to March 1987 for Kolhapur station and April 1984 to March 1987 for other stations).

The Railway Administration stated in November 1987 that the nomination of these stations for dealing with train load traffic was done keeping in view the train load traffic offering at these stations and such train loads in Kolhapur-Miraj-Pune section could have been moved en bloc by utilising double headed engines but they resorted to single engine operation only on cost considerations.

5.7 North Eastern Railway - Loss of revenue due to limitation of working hours

A free time of five working hours is permissible for loading tank wagons/rakes including POL (Petroleum, Oil and Lubricants) at all locations. It is to be counted from the time the wagons are supplied for loading at the exchange yard/interchange point to the time the loaded wagons are received back at the exchange yard/interchange point.

The Railway Board instructed the Railways in September 1981 to review the working hours of all major sidings taking into account their working pattern and change both the working hours and free time, so that large factories and major sidings who were working round the clock should resort to round the clock handling of wagons also. However, the Railway Administration declared working hours as 6 to 22 hours for Indian Oil Refinery siding at Barauni although the refinery was working round the clock.

The Railway Administration also decided in October 1983 not to charge demurrage on tank wagons, if placed in the siding between 22.00 hours to 6.00 hours (in all such cases placement was to be reckoned from 6.00 hours) and if five hours free time was not available up to 22.00 hours. Consequently, the refinery took extra time for loading the tank wagons although it could have worked throughout the night and released the wagons quickly for earning additional revenue. The loss of revenue on this account is not quantifiable.

The Railway Board stated in December 1987 that the economics of resorting to round-the-clock working has to be worked out by the Railway having regard to the traffic offered and expenditure on staff deployed. This was awaited.

5.8 Western Railway - Heavy amounts due from Gujarat State Electricity Board

A large amount of Rs.263.94 lakhs is due to the Railways from Gujarat State Electricity Board (GSEB) for coal wagons delivered to its power stations, as detailed below:-

- (a) Non-payment of freight on coal wagons at wagon load rates instead of train load rates, in respect of
 - (i) regular wagons for the period 15 February 1982 to 14 July 1983 - Rs.53.00 lakhs
 - (ii) unconnected coal wagons delivered during the period January 1983 to February 1987 - Rs.47.86 lakhs
- (b) Non-payment of freight as per the revised carrying capacity of wagons for the period 1 June 1986 to 31 March 1987 -Rs.158.43 lakhs
- (c) Siding charges paid on the basis of single engine though double engine was used during the period from April 1986 to March 1987 - Rs.4.65 lakhs

The Western Railway holds total guarantee of Rs. 405 lakhs for credit notes issued by the GSEB for clearance of its dues towards freight and other charges in respect of traffic received in their sidings. However, due to dishonour of the credit notes by the banks, the Railways are yet to receive payment of Rs.4872 lakhs covered by such dishonoured credit notes.

The Railway Board explained in immediately due to want of funds. As November 1987 that the GSEB was no regards the other undercharges it was longer disputing the Railways dues in stated that the GSEB had gone in appeal respect of dishonoured credit notes, against the single bench court's order but they were unable to pay these up for payment of the dues.

New Delhi
Dated the

30 MARCH 1988

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(D.K. CHAKRAVORTY)

Deputy Comptroller and Auditor
General of India(Railways)

Countersigned

New Delhi
Dated the

30 MARCH 1988

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CHA TURA 1980

T.N. Chaturvedi

(T.N. CHATURVEDI)

Comptroller and Auditor
General of India

ANNEXURE I
(cf. Para 2.3)

Summary of salient indicators of the financial and operating performance
of the Railways for the years 1982-83 to 1986-87

	1982-83	1983-84	1984-85	1985-86	1986-87
1. Capital-at-charge at the end of the year (Rs. in crores)®	7,251.09	7,567.80	8,285.65	9,078.07	10,373.10
2. Total Block assets (Rs. in crores)	8,832.20	9,401.40	10,377.15	11,931.03	13,836.59
3. Revenue Receipts(Rs. in crores)	4,483.32	5,089.06	5,469.09	6,590.67	7,683.08
4. Revenue expenditure including (amount appropriated to funds->) (Rs. in crores)	3,929.03	4,710.11	5,198.99	5,904.80	7,002.24
5. Net revenue including subsidy (Rs. in crores)	715.89	1,044.26	1,084.09	1,212.44	1,630.92
6. Net revenue excluding subsidy (Rs. in crores)	554.29	378.95	270.10	685.87	680.84
7. Net revenue excluding subsidy (Rs. in crores)	457.64	285.95	169.67	557.73	536.93
8. Revenue surplus after providing for dividend due (Rs.in crores)	118.31	-44.75	-195.59	178.83	101.99
9. Return on Capital-at-charge (reckoning subsidy - percentage of item 5 over item 1)	7.64	5.01	3.26	7.56	6.56
10. Return on Capital-at-charge (without reckoning subsidy - percentage of item 6 over item 1)	6.31	3.78	2.05	6.14	5.18
11. Return on Block assets (Percentage of item 5 over item 2)	6.08	3.91	2.52	5.75	4.92
12. Return on block assets (Percentage of item 6 over item 2)	5.02	2.95	1.58	4.67	3.88
13. Total indebtedness(Rupees in crores)					
(a) On account of shortfall in dividend liability	304.82	349.57	545.16	428.44	428.44
(b) On account of deferred dividend payable in respect of new lines which have completed moratorium	58.61	60.05	63.49	58.48	60.67
(c) On account of shortfall in Development Fund	224.16	273.75	336.36	336.36	348.17
Total (a to c)	587.59	683.37	945.01	823.28	837.28
14. Revenue earning goods traffic in million tonnes	228.76	230.12	236.44	258.55	277.75
15. Total traffic (million tonnes)	256.00	258.00	264.17	286.38	307.31
16. Passenger kilometres (in millions)	226,930	222,935	226,582	240,614	256,467
17. (a) Goods earnings (Rs. in crores)	2,972.12	3,353.50	3,602.42	4,376.38	5,133.24
(b) Passenger earnings (Rs. in crore)	1,161.65	1,353.55	1,458.82	1,719.68	1,940.96
18. Fuel consumption by locomotives per thousand gross tonne kilometres					
(a) Passenger Service					
(i) Coal (Kg)	79.2	77.3	82.3	81.9	81.0
(ii) Diesel (Litre)	5.30	5.40	5.25	5.27	5.37
(b) Goods Services					
(i) Coal (Kg)	95.0	98.5	97.0	99.8	105.4
(ii) Diesel (Litre)	3.6	3.6	3.6	3.5	3.48
19. Number of staff (thousands)	1,584	1,593	1,603	1,613	1,612
20. Average annual wage per employee (Rupees)	10,846	12,890	14,797	16,883	21,076
21. Operating ratio (per cent)	88.34	93.5	96.3	90.6	92.2

® Excludes expenditure on Metropolitan Transport Projects.

ANNEXURE II
(cf. Para 2.12.3)

Details of Audit Objections issued up to 31 March 1987
but outstanding on 31 July 1987

Sl. No.	Railways and other Units	Money Value Known						Money Value Not Known							
		Part I Audit Notes and Special letters			Part I Inspection Reports			Part I Audit Notes and Special letters			Part I Inspection Reports				
		No. Items	Amount (Rs. 000)	Oldest pertains to	No. Items	Amount (Rs. 000)	Oldest pertains to	No. Items	Amount (Rs. 000)	Oldest pertains to	No. Items	Amount (Rs. 000)	Oldest pertains to		
1.	Central	36	52	7,28,52	1984-85	72	157	18,77,92	1983-84	12	19	1983-84	14	40	1983-84
2.	Eastern	37	41	3,00,41	1978-79	246	625	1,24,33,46	1976-77	18	22	1978-79	95	216	1981-82
3.	Northern	334	347	16,79,81	1979-80	174	645	30,70,02	1979-80	1091	1226	1975-76	312	1845	1977-78
4.	North Eastern	167	204	4,05,17	1975-76	350	3745	40,99,75	1973-74	133	148	1978-79	419	2788	1977-78
5.	Northeast Frontier	197	244	11,08,67	1973-74	362	1155	10,67,38	1971-72	568	720	1966-67	1068	8039	1969-70
6.	Southern	90	154	7,71,06	1984-85	14	36	10,29	1983-84	403	816	1983-84	53	267	1984-85
7.	South Central	152	271	18,21,32	1975-76	217	526	10,16,74	1976-77	76	181	1975-76	130	817	1975-76
8.	South Eastern	152	164	16,25,09	1975-76	229	453	85,94,79	1976-77	29	29	1975-76	51	80	1976-77
9.	Western	153	165	7,86,13	1978-79	287	420	15,17,21	1982-83	10	17	1978-79	30	57	1982-83
10.	Chittaranjan Locomotive Works	25	25	10,95,96	1976-77	99	200	9,33,61	1976-77	4	4	1982-83	36	221	1977-78
11.	Diesel Locomotive Works	37	46	1,87,40	1976-77	28	68	21,58,77	1977-78	36	36	1984-85	87	108	1977-78
12.	Integral Coach Factory	5	7	27,20	1981-82	-	-	-	-	94	189	1983-84	25	89	1982-83
13.	Metropolitan Transport Project, Bombay	-	-	-	-	-	-	-	-	-	-	-	1	3	-
14.	Metropolitan Transport Project, Calcutta	5	5	2,13,38	1984-85	20	24	81,71	1982-83	4	4	1983-84	19	87	1981-82
Total		1390	1725	1,07,50,12		2098	8054	3,68,61,65		2478	3411		2340	14657	

ANNEXURE III
(cf. Para 3.1.1)

Track Standards

Broad Gauge Traffic density (GMT/annum)	Category of route				
	Group 'A' routes (speeds up to 160 kmph)	Group 'B' routes (speeds up to 130 kmph)	Group 'C' routes (suburban section)	Group 'D' routes (speeds up to 100 kmph)	Group 'E' routes (speeds below 100 kmph and branch line Sections)

Rails (k.g. per metre)					
Over 20	60	60	60	60	Normally released rails of 44.6 kg section and above may be used. If primary renewal is considered necessary and traffic density is more than 5 GMT, 52 kg rail section should be used.
15 to 20	52 (60 kg rail if concrete sleepers are used)	52 (60 kg rail if concrete sleepers are used)	52	52	
10 to 15	-do-	52	52	52	
Under 10	-do-	52	52	52	

Sleeper Density (Numbers per Km)					
Over 20	1660	1540*	1540*	1540	1310
15 to 20	1660	1540	1540	1540	1310
10 to 15	1660	1540	1540	1540	1310
Under 10	1660	1540	1540	1310	1310

*This may be increased to 1660 when speed is increased beyond 130 kmph.

Track Standards

Metre Gauge

Category of route	Speed	Traffic density	Rails	Sleeper density (number per km)
	More than 75 kmph	NA	90 R (new)	1540
R-I	Up to 75 kmph	More than 5 GMT	90 R (new)	1540
R-II	Up to 75 kmph	2.5 to 5 GMT	Second hand 90 R or 75 R (new)	1540
R-III	Up to 75 kmph	1.5 to 2.5 GMT	Second hand 90 R or 75 R (new)	1308
S	less than 75 kmph		Second hand 80 R (Minimum)	1230

ANNEXURE IV
(cf. Para 3.1.13)

Railway-wise position of concrete sleepers received and laid in track

Particulars	R a i l w a y s						
	Central	Eastern	Northern	Southern	South Central	South Eastern	Western
1. Concrete sleepers received							
(a) Number in thousands	857	986	967	408	453	545	645
(b) In terms of track km	557	640	620	265	294	354	418
2. Concrete sleepers laid with							
(a) Machines(km)	255	197	507	226	169	112	208
(b) Manually(km)	289	306	18	10	89	137	90
3. Total concrete sleepers laid (km)	544	503	525	236	258	249	298
4. Percentage of sleepers laid to total received.	98	78	64	89	88	70	71

ANNEUXURE V
(cf. Para 3.2.5)

Incidence of various kinds of accidents on Indian Railways

Year	A. Train accidents				Total	B	C	Total (A+B+C)	Incidence of acci- dents per million tkm
	Colli- sions	Derail- ments	Level crossing	Fire		Failure of Rail- way equip- ments	Miscel- laneous		
1970-71	59	648	121	12	840	3,062	1,016	4,918	10.54
1971-72	57	667	118	22	864	3,043	1,052	4,959	10.45
1972-73	59	598	131	25	813	5,185	1,179	7,177	15.17
1973-74	66	578	125	13	782	6,082	1,206	8,070	18.65
1974-75	66	696	140	23	925	8,499	1,301	10,725	24.94
1975-76	64	768	105	27	964	9,765	1,071	11,800	24.21
1976-77	45	633	86	16	780	7,856	907	9,543	18.65
1977-78	54	705	93	14	866	9,256	867	10,989	20.89
1978-79	55	778	86	12	931	9,258	894	11,083	21.98
1979-80	72	692	115	21	900	10,450	839	12,189	24.21
1980-81	69	825	90	29	1,013	11,099	773	12,885	25.54
1981-82	87	936	84	23	1,130	13,731	791	15,652	30.30
1982-83	54	653	70	20	797	13,346	1,018	15,161	28.56
1983-84	48	621	82	17	768	13,454	1,407	15,629	28.84
1984-85	39	678	65	30	812	14,030	823	15,665	28.95
1985-86	46	588	62	21	717	13,436	774	14,927	26.17

ERRATA

Page No.	Column No.	Line No.	For	Read
10	2	4 from bottom	-	delete 'as'
13	1	15 from bottom	Rs.36.18 per cent	36.18 per cent
13	2	Bottom line	in	is
13	2	4 from bottom	above	in table 7
21	1	1 from top	utilistion	utilisation
23	2	4 from bottom	seven	eight
23	Table	8 from top	198788	1987-88 (up to Nvember 1987)
24	1	7 from top	seven	eight
24	1	16 from bottom	specifecation	specifications
29	2	3 from bottom	exceeding	extending
39	1	11 from bottom	But	but
43	1	11 from top	one firm'E'	Firm 'A'
48	1	12 from top	July 1973	July 1979
50	2	6 from top	closenss	closure
50	2	16 from bottom	52.57	52.47
52	2	4 from top	August and Setember 1984	August 1984
52	2	23 from top	Rs.6309	Rs.7309
56	1	3 from bottom	Administrations	Adminitration

