

## Chapter 3 Scrap Management in Indian Railways

### 3.1 Highlights

- **Collection of Scrap was less than the target by 3,61,070 MT (value Rs.539.80 crore) on some Railways with reference to the targets fixed during the years 2002-03 to 2006-07.**  
*(Para 3.8.1.1)*
- **A shortage of 10909 MT of engineering and mechanical scrap was recorded in the Advice Notes indicating loss of Rs.9.84 crore.**  
*(Para 3.8.1.3)*
- **There was a difference of 4600 MT of Scrap between the total quantities of the lots placed for auction and quantity actually auctioned representing a shortage valuing Rs.4.79 Crore.**  
*(Para 3.8.2.2)*
- **There was loss of revenue to the extent of Rs.2.91 crore (Rs.1.65 crore in Southern Railway) due to the sale of scrap at prices lesser than the reserve price fixed over seven Zonal Railways.**  
*(Para 3.8.2.5)*
- **Despite increasing trends in the 'Wholesale Price Index' for 'Iron and Steel', Railway sold the rails as scrap material at lower rates. Audit noticed large variations in the rates for the sale of same scrap item in a year over Zonal Railways as well as between the minimum and maximum rates in the same year resulting in lesser realisation of sale value.**  
*(Para 3.8.2.6)*

### 3.2 Recommendations

In order to ensure proper account of scrap and obviate the possibility of leakage of revenue Railway should take immediate measure to:

- Introduce a system whereby each material dispatched by field offices to stores depots for arranging auction is weighed and accounted for by store depots before formation of lots.
- In order to ensure that Railways realise the best price from the auction, the reserve price should be fixed in such a manner that it is not less than the price obtained previously and there should be no relaxation for acceptance of lower price. Inter zonal Railway comparison of prices obtained in auction of similar material may be done before the actual auction so that the best price is obtained.

### 3.3 Introduction

Indian Railways sells approximately ten lakh tonnes of metallic scrap valued at Rs.1500 crore every year. Scrap disposal is one of the thrust areas for intensive scrutiny in order to prevent possible leakage of revenue. The sale of

scrap gathers more importance in view of the fact that scrap generation has been enhanced by the unigauge policy and gauge conversion projects undertaken in the last fifteen years. Scrap disposal has been identified as one of the high priority areas in the recent years for generating internal resources for supplementing the Railway finances. The major sources of scrap are from the Engineering and Mechanical departments. Various scrap materials like melting scrap, released track material including rails, condemned Rolling stock, released materials from redundant sidings etc., generated on the Railways are collected at convenient locations and disposed off through auction / tender sales.

### **3.4 Organisation and functions**

Policy making decision in respect of policy and procedure for disposal of scrap rests with Stores Directorate of Railway Board. At Zonal Railways level, the Stores department headed by Controller of Stores (COS) is responsible for regular collection of all items of scrap at convenient places for sale from the consuming departments i.e., Engineering, Mechanical, Signal etc. FA&CAO at Zonal Railway level is responsible for watching proper disposal and accountal of scrap.

### **3.5 Audit objectives**

The audit objective for the performance audit was to assess whether the systems in Railways ensure that:

- Released materials are properly identified and classified as scrap ensuring minimum delay and deterioration.
- Disposal of scrap is done at the earliest in a transparent manner ensuring that the best possible price is fetched.
- Accountal of scrap generated is done properly.
- Theft and pilferage is avoided by maintaining proper custody of scrap.

### **3.6 Audit criteria**

The rules and provisions contained in Indian Railway Codes for Engineering, Mechanical and Stores Departments, Indian Railway Permanent Way Manual (IRPWM) and the guidelines and instructions issued by Railway Board from time to time besides SAG Committee recommendations and Railway Board's decisions thereon on Scrap Management, Joint Procedure Orders and Procedure Orders issued from time to time were used as criteria to assess the performance of Indian Railways on Scrap Management.

### **3.7 Scope and area of coverage**

The review covers arising, accountal and disposal of scrap including Rails, C I scrap, Coaches and wagons for the period from 2002–03 to 2006–07.

### **3.8 Audit findings**

#### **3.8.1 Scrap identification, generation and collection**

In terms of para 2403 of the Indian Railway Code for the Stores Department, except for those items of scrap which the consuming departments have been authorized to dispose of, Stores Department should arrange for collection of all items of scrap and disposal thereof. Audit scrutiny of records of stores Department revealed as under.

##### **3.8.1.1 Shortfall in collection of scrap**

The position of target set for collection of the scrap and its achievement during the year 2002-03 to 2006-07 was reviewed and it was noticed that though the overall position of collection was more than the targets yet there was a total shortfall of 3,61,070 MT valuing Rs.539.80 crore on Central, East Central, South Central, Southern, North Eastern, North Western, South Western, South Eastern, Southeast Central, Northern, Eastern, Northeast Frontier, Western, and West Central Railways in some years.

The reasons for short collection were attributed to slow progress of Gauge Conversion, Track renewal works either carried out partially or not taken up etc.

##### **3.8.1.2. Shortfall in actual release of rail scrap as compared to the estimated quantity**

A test-check of 36 Complete Track Renewal, Through Rail Renewal and Gauge Conversion works revealed that as against the estimated quantity of 423437 MT of P. Way material scrap, the actual quantities realised was 350051 MT resulting in shortage of 14367 MT (value Rs.22.75 crore). This indicates Railway's inadequate planning for physical recovery of all the released material.

##### **3.8.1.3 Difference in weights indicated in Advice Notes sent by the custodian and accepted by the Scrap collection depot**

In terms of provisions of Indian Railway Code for the Stores Department, all material including scrap transferred to other depots should be sent with Advice Note in which particulars of PL No. and class, description, quantity dispatched, quantity received etc. of the stores are entered. A test check of 135 SSE/PW offices from all Zonal Railways and 46 SSE/PW offices of Construction Organisation revealed that a quantity of 506.10 MT of rails and 5377.43 MT of CI Scrap valued Rs.3.16 crore was acknowledged short in 80 P. Way depots and five Construction depots. The shortages ranged between 0.11 per cent and 46.61 per cent during 2002-03, 0.99 per cent and 100 per cent during 2003-04, 0.04 per cent and 39.13 per cent during 2004-05, 0.17 per cent and 14.75 per cent during 2005-06 and 0.01 per cent and 40.11 per cent during 2006-07. Cases of more than 10 per cent shortages involving sizeable money value were noticed in Southern Railway (46.83 per cent), Eastern Railway (30.47 per cent), West Central Railway (46.61 per cent), North Central Railway (100 per cent) and North Eastern Railway (40.11 per

cent). The reasons for the shortages furnished by the Administration viz., heavy corrosion, wear and tear and preparation of Advice Notes under sample weighment. The reasons are not tenable because in order to ensure proper accountal of material, all the material sent should be weighed/ linear weight assessed for rails scrap by the sender as well as by the recipient.

Similar check of eleven Mechanical depots on Southern (2), Central (2), North Eastern (1), South East Central (2), South Eastern (2), West Central (1) and Eastern (1) Railways revealed that Ferrous and wagons scrap measuring 5025.12 MT valued at Rs.6.68 crore was acknowledged short by the recipient. Heavy shortages were noticed over South East Central Railway (Rs.1.74 crore), South Eastern Railway (Rs.3.17 crore), Southern Railway (Rs.0.86 crore) and Central Railway (Rs.0.82 crore). The reasons for shortages were not recorded except in South East Central Railway where the shortage was attributed to non-availability of 'weighing machine' in the depot.

### 3.8.2 Shortcomings in disposal of Scrap

In terms of Para 2410 of the Indian Railway Code for the Stores Department, all scrap material accumulated for the purpose of auction sale should be separated into convenient lots of a size that would suit the bidders at auctions. The particulars of each lot be entered in a survey sheet to be submitted to a Survey Committee for inspection of lots and recording their recommendations. Audit scrutiny of records of Stores Department revealed as under.

#### 3.8.2.1 Disposal of scrap and realisation thereof

As per records maintained in the office of COS, the year-wise realisation from the sale of scrap is given below:

Year	Money value of scrap sold		
	P.Way scrap	Rolling stock	Total
2002-03	491.80	120.93	612.73
2003-04	486.79	145.05	631.84
2004-05	368.64	207.41	576.05
2005-06	339.49	163.06	502.55
2006-07	661.38	200.50	861.88
<b>Total</b>	<b>2348.10</b>	<b>836.95</b>	<b>3185.05</b>

It was observed that as on 31 March 2007, 185661 MT tonne of engineering scrap comprising of rails, ferrous and non-ferrous scrap and 472 Wagons and 165 Coaches (total value Rs.298.05 crore) was awaiting disposal.

#### 3.8.2.2 Differences between the original lot quantities and auctioned quantities

Lots of scrap material are formed only after following well laid down codal provisions and, therefore, there should not be any significant difference between the lot quantity and the quantity auctioned. Before conducting auction and effecting deliveries, Railway should ensure that there is no variation in the quantity indicated in the register of lots and quantity mentioned in the auction catalogue.

During the period under review, 2956 auctions involving sale of 73696 lots

were held wherein a large difference (4600 MT scrap value Rs.4.79crore) between the lot quantity and auctioned quantity was noticed on ten Zonal Railways. Six<sup>22</sup> Zonal Railways did not make available the records for review.

Railway Administration stated that variations were due to heavy corrosion, wear and tear and preparation of Advice Notes under sample weightment. This reply is not acceptable because measurement of lots on sample weightment may lead to pilferage and misappropriation of material.

### **3.8.2.3 Refunds due to short delivery of scrap**

Weight of a lot should be a sum of weights shown in all the Advice Notes already accepted by the Depot officials or the weight arrived at on linear basis in case of rails. Normally there should not be any case of refund due to delivery of lesser quantity of scrap during sale. However, a test-check of 545 cases of refunds made on all Zonal Railways revealed that Railway Administration refunded a sum of Rs.6.69 core as cost of 7344 MT scrap found short at the time of deliveries during the period covered under review. This indicates lacunae in the procedure for forming of lots.

In order to ensure proper accountal of all scrap and obviating the possibility of leakage of revenue, Railways should arrange for proper weightment of all scrap material and there should be no scope of discrepancy at the time of delivery.

Six<sup>23</sup> Zonal Railways did not make available to Audit the documents relating such refunds.

### **3.8.2.4 Blocking up of capital due to non-disposal of unusable materials**

In terms of provisions of Indian Railway Code for Stores Department, items not issued during the past 24 months and which are not likely to be used on any Railway system in the next two years may be surveyed and declared as 'dead surplus'. Such stores may be surveyed, re-classified and disposed promptly. A test-check of SSE/P.Way offices on all Zonal Railways except West Central Railway revealed that there were 94 items of Class I materials valuing Rs.9.20 Crore (approx) lying in 31 P.Way depots for a long period without any use or disposal. Thus non declaration of these items as dead surplus and non-disposal thereof has resulted in blocking up of capital amounting to Rs.9.20 crore.

### **3.8.2.5 Sale of scrap at lower than the fixed reserve price**

As per Para 2411 (2) of Indian Railway Code for the Stores Department read with Railway Board letter No. 74/709/37/RS(S) dated 25.02.1983, Reserve Prices for each lot earmarked for auction should be fixed on the basis of best bids obtained in the past auctions and information like published market rate of similar materials, rates of similar material in depots situated nearby etc. so that an item of scrap put for auction sale may be withdrawn from the sale, if the bids are found unsatisfactory. Bids lower than the reserve prices may

<sup>22</sup> ECOR, ECR, ER, NCR, NER and SECR

<sup>23</sup> ECOR, NCR, SECR, SER, ER and CR

however, be accepted by the Depot Officer where found expedient provided the Depot Officer records his reasons in writing. As per the procedure communicated by Railway Board in their letter No.86/RS(S)/709/14 dated 14 April 1987, whenever disposal of scrap is not progressing at a satisfactory level, the auction supervising officer may be authorized to accept a price below the reserve price up to a certain limit (say 10 per cent) to be fixed by the Controller of Stores in consultation with FA & CAO by recording reasons therefor.

Audit observed that Railways have quite often sold the scrap below the reserve price. The total financial loss due to sale of scraps at the rates lower than the reserved price over seven Railways was Rs.2.91 crore (maximum of Rs.1.65 crore in Southern Railway) during the review period. The loss in other nine<sup>24</sup> Zonal Railways could not be assessed due to the non-production of records to Audit by the respective Railway Administrations on the pretext of confidentiality. In most of the cases the reasons for accepting prices lower than the reserve price were not recorded.

### 3.8.2.6 Scrap materials sold at lower than the previous year's rate

Though the rates for the supply of rails by Steel Authority of India had been on the increase as also the Index of wholesale prices for 'Iron and Steel' published periodically by Reserve Bank of India, Railways have sold the scrap materials at much lower rates than the previous year's rates as detailed in the table below:

Year	SAIL's rate for 60 kg rail as	RBI index for Iron and Steel	Sold rate of Rail Scrap		C I Scrap		Other Scrap	
			Minimum (Rs. Per MT)	Maximum (Rs. Per MT)	Minimum (Rs. Per MT)	Maximum (Rs. Per MT)	Minimum (Rs. Per MT)	Maximum (Rs. Per MT)
2002 – 03	24959	150.2	7050 (SR)	13176 (WR)	5696(WR)	11600(SR)	3610(NR)	18250(NER)
2003 – 04	25099	201.6	8100 (NFR)	19400 (WCR)	7000(WR)	19310(ER)	5180(WR)	21000(NER)
2004 – 05	27837	232.6	11400(NER)	23000 (NER)	10637(SR)	20300(NER)	10000(NR)	25100(NR)
2005 – 06	35635	249.6	15900 (ER)	17000 (ER)	7338(SR)	21699(NCR)	6850(NR)	29800(NWR)
2006 – 07	NA	255.0	12000 (NFR)	21651 (NWR)	8424(SR)	21327(SR)	6850(NR)	31100(NWR)

It could be seen from the above table that even though there was increase in the Iron and Steel prices, wide variations were noticed between the minimum and maximum rate in the same year and between the minimum rates obtained in the subsequent years for the same scrap material as compared with the maximum rates obtained during the previous year fetching much lower value. In this connection following observations are made:

- In respect of scrap rails, the minimum rates obtained during 2002–03 was Rs.7050 per MT on Southern Railway whereas the rate obtained in Western Railway was Rs.13176 per MT. Thus the rates accepted by Southern Railway were lower by 86.89 per cent than the rates of

<sup>24</sup> CR, SWR, ER, NCR, NEFR, NR, SER, WCR and ECR

Western Railway.

- In respect of C I scrap, rate of Rs.5696 per MT accepted by Western Railway was 103.65 per cent lower than Southern Railway rate of Rs.11600 during 2002–03.
- In respect of ‘other scrap’ also the rate of Rs.3610 per MT accepted by Northern Railway was lower by 405.54 per cent than the rate of Rs.18250 per MT accepted by North Eastern Railway during 2002–03.

In respect of wagons, the variation of rates per wagon between different Railways was abnormally high in the same year as noted below:

Year	Railway	Rate per unit Minimum (Rs.)	Railway	Rate per unit Maximum (Rs.)	Percentage lower
2002 - 03	NFR	52300	SCR	292857	459.96
2003 - 04	NFR	58307	WCR	338200	480.03
2004 - 05	ECR	86000	ER	490000	469.77
2005 - 06	SCR	83750	ER	504000	501.79
2006 - 07	NFR	63833	ER	400000	526.64

In respect of both BG and MG coaches, the variation of rates per BG / MG coach between different Railways in the same year was also abnormally high as noted below:

Year	Railway	Rate per No. Min. (Rs.)	Railway	Rate per No. Max. (Rs.)	Percentage lower
2002 - 03	BG NER	104000	SR	266667	156.41
	MG SR	80100	NWR	181670	126.80
2003 - 04	BG ECR	110000	SR	460000	318.18
	MG NER	88011	SWR	324950	269.22
2004 - 05	BG NER	140000	NR	460700	229.07
	MG ECR	85000	NWR	352000	314.12
2005 - 06	BG NFR	140250	SR	486000	246.52
	MG NFR	95000	NER	256000	169.47
2006 - 07	BG NFR	150000	NCR	493750	229.17
	MG NFR	80000	NWR	312000	290.00

The documents relating to coaches and wagons in respect of Central Railway, East Coast Railway, East Central Railway, South East Central Railway, North Central Railway, South Eastern Railway, West Central Railway, Western Railway and South Western Railway were not available.

### 3.8.3 Accounting Issues

Para 2927-S [sales (capital 7140 and 7150)] provides that during cash sales, auction sales or sales by tender, where the value of material sold by the Railway is recovered in advance of actual issue of stores, the credit to this account will appear earlier than the debit. The credit will be by debit to “cash”. In other cases, i.e. direct or tender sales to other Railways or Government departments, the debit will appear first by credit to “stores” for the value of

stores at the sale rates. The credit will be received through transfer certificates or exchange Accounts by debit to the “Transfer Railways”. Further transactions in the suspense heads are held temporarily pending clearance by payment or recovery or adjustment to the final head of account and no item becomes inefficient merely due to non-availability of detailed particulars as per provisions in Para 601 A –I. Audit observed the following deficiencies in accounting procedures.

**3.8.3.1 Non-clearance of debit/credit balances from Scrap Sales Suspense Account for more than three years.**

A review of Suspense balances under Scrap Sales Account as on 31.03.2007 revealed that 3580 debit items amounting to Rs.30.24 crore and 6578 credit items amounting to Rs.69.59 crore were lying for more than three years (from 1991-92 to 2003-04 on Southern Railway and from 2001-02 to 2003-04 on other Zonal Railways) without clearance. Debit balances represent non-accountal of Sale Issue Notes, credit not received from concerned accounts units and credit booked to wrong allocation, besides unlinked debits with corresponding credits. Credits represent the unadjusted advance amount deposited by the purchasers of scrap. These balances should have been cleared either by connecting the issue notes for sale of scrap or by refunding the amount to the purchasers.

**3.8.3.2 Non-reconciliation of credits afforded by Stores department with the value of scrap materials handed over to stores depot by Divisions**

As per codal provisions (Para 1514–E), credit for released materials constitutes a reduction of expenditure in accounts reflecting the effect of the resources generated by the realisation of credits for released materials. The resource allocation made for framing the works programme takes into account the additional resources that would accrue by the realisation of credits indicated by the Railway Administration and hence it is necessary that a watch is kept on the actual credit. Further, as per Railway Board’s decision (September 2002), all cases of credit not afforded should be taken up with the Depot Officer and the Stores Accounts Officer as per Paragraphs 1607 and 1628–S. A review of records maintained in Divisional Offices/Construction units of Indian Railways revealed that the Railways had not followed the above procedure and not maintained a Register of Advice Notes.

Railways handed over as much as 821785 MT of Rails and 895734 MT of CI Scrap to Stores department during the period 2002-03 to 2006-07 for auction sales. Out of this, Stores Department sold 624567 MT of rails and 828637 MT of CI scrap for Rs.1703.25 Crore. However, Divisions could link the value of credit afforded by Stores Department only for Rs.958.11crore leaving a balance of Rs.745.14 crore in the suspense.

**3.8.3 3 Write back adjustment for condemned rolling stock**

As per codal provisions, when a reduction in the authorized stock is sanctioned, an estimate should be prepared writing down the original cost of

such stock from Capital. Capital is credited with the cost-at-debit of Capital of the condemned rolling stock abandoned or disposed off without being replaced. A review of the condemned Coaches and Wagons on all Zonal Railways for the period 2002-03 to 2006-07 revealed that there were delays ranging from one to 120 months in writing down the original cost from Capital resulting in avoidable payment of dividend of Rs.37.59 Crore to General Revenues. A further detailed check on Southern Railway revealed that although Mechanical department of Zonal Headquarters had communicated the condemnation of rolling stock and their original costs to the Accounts department, reconciliation between the original costs advised and the actual amounts written back from Capital had not been carried out.

### **3.9 Conclusion**

The performance audit indicates that actual collection of scrap fell short of the targets fixed either due to non-identification of the scrap material or due to non-sending of scrap from custodian to the Depots responsible for disposal. Moreover, subsequent quantities of scrap material were not disposed for a considerable period due to an unnecessary ban on sale resulting in non-realisation of a large revenue for the related period. Management was also not sufficiently efficient and effective in disposing the scrap material resulting in non-realisation/delayed realisation of sale value. Revenue realised was also not as per the price projected.