Authenticated.

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Report of the Comptroller and Auditor General of India

for the year ended March 1998

Union Government (Commercial)

(STEEL AUTHORITY OF INDIA LIMITED)

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PREFACE

A reference is invited to the prefatory remarks in Report of the Comptroller and Auditor General of India - Union Government No.1 (Commercial) 1999 where a mention was made that reviews of the performance of Companies/Corporations by the Comptroller and Auditor General of India are presented in separate Reports.

This Report contains four reviews covering areas on the working of Steel Authority of India (SAIL) viz. (i) Modernisation of Rourkela Steel Plant, (ii) Marketing Organisation of SAIL, (iii) Import of Coking coal by SAIL and (iv) Utilisation of Aircrafts owned by SAIL.

INTRODUCTION

Performance of Steel Authority of India Limited (SAIL) in the emerging Steel Scenario

Per capita consumption of steel is treated as one of the important indicators of socio-economic development and living standard of the people in the country. India's consumption of finished steel products rose from 14.37 million tonne (MT) in 1990-91 to 23.15 MT in 1998-99. However, per capita consumption of steel in India remained at 26 kg. which was only 17 per cent of the world average of 150 kg. The 9th plan Working Group had worked out that the demand for finished steel would go up from 25.43 MT in 1996-97 to 38.68 MT in 2001-02. As against this, the actual availability of finished steel from all sources (excluding stock) during 1998-99 was 22.41 MT. This indicates that there is a great scope for demand led growth in this sector.

Indian Steel Industry is dominated by Integrated Steel Plants (ISPs) as the primary producers and mini steel plants as the secondary producers. Except one steel company all the ISPs are owned by the Government, a majority of these being under the control of Steel Authority of India Limited (SAIL). However, with the introduction of economic reforms and adoption of liberalised economic policies in July 1991, the Indian Steel Industry underwent a structural change from a protective sector to an open competitive one. In January 1992 iron and steel products were decontrolled, industrial licensing restrictions abolished to encourage setting up of new steel plants in the private sector. In order to provide greater flexibility to main producers to respond to market forces the Freight Equalisation Fund Scheme was abolished in January 1992 and levy on account of Steel Development Fund was discontinued from April 1994. In the post liberalisation period following 1992-93, the public sector (SAIL and Rashtriya Ispat Nigam Limited) added additional capacity of 0.861 million tonne and 7.071 million tonne additional capacity was created in the private sector.

This report covers four major areas of functioning of SAIL which was and continues to be a major player in the steel industry even in the Liberalised Scenario. During 1997-98 and 1998-99, out of the total supply of finished steel of 23.04 MT and 22.41 MT, SAIL contributed 6.67 MT and 5.98 MT (i.e.29 and 27 per cent) respectively.

SAIL is the largest steel conglomerate in the country having four integrated steel plants at Bhilai, Bokaro, Durgapur and Rourkela besides two alloy steel plants at Durgapur and Salem.

As on 31 March 1999 the total paid up capital of SAIL was Rs. 4130.40 crore out of which Rs. 3544.69 crore (85.82 per cent) was held by the Government of India. The borrowing of the Company as on 31 March 1999 was Rs.21017.25 crore. Expenditure on debt servicing itself worked out to 230.11 per cent of the borrowings during 1998-99. The debt equity ratio of the Company in 1998-99 stood at 3.06:1 against 1.03:1 prevailing in 1990-91 (i.e. prior to decontrol). SAIL recorded a peak profit before tax of Rs. 1319

crore during 1995-96 which took a sharp plunge to Rs. 588 crore in 1996-97 and further to Rs. 149 crore in 1997-98. The profit before tax after taking into account comments of the CAG would turn into a loss of Rs. 46.81 crore and Rs. 831.09 crore (including statutory auditors' qualifications) during 1996-97 and 1997-98 respectively. SAIL recorded a loss before tax of Rs. 1618.33 crore during 1998-99 which after taking into account comments of CAG would further increase by Rs.994.32 crore (including statutory auditors' qualifications). The main reasons for a sharp decline in the fortunes of SAIL is the heavy burden of depreciation on capitalisation of assets after modernisation of it's plants, interest on borrowings, higher input cost and lower steel prices.

2. SAIL had undertaken large scale modernisation programme of Durgapur, Rourkela and Bokaro Steel Plants on which it spent nearly Rs. 12000 crore. Despite this huge investment the installed capacity could only be increased by 0.746 million tonne in respect of production of crude/liquid steel.

The shortcomings/irregularities noticed in the modernisation of Durgapur Steel Plant have been commented upon in Report No. 4 of 1998-Union Government (Commercial). Chapter-1 of this report covers the observations arising out of audit of 'Modernisation of Rourkela Steel Plant'. These reports inter-alia reveal that at least in Durgapur and Rourkela huge investment of Rs.10023 crore on modernisation has been largely unproductive as there has been little or no improvement in techno-economic parameters and these plants continue to make progressively huge losses. The working results of the Company and it's various individual units for the last three years may be seen at **Annexure-III** of Chapter-1.

3. Apart from the huge unproductive investment the burden of which is being felt by SAIL by way of depreciation and interest charges, SAIL's growing losses are also attributable to it's late reaction to the changed market scenario. The market set up of SAIL took considerable time to gear itself up to meet the changed requirement of the market which was characterised by diminishing trade and tariff barriers on the one hand and declining steel consumption due to economic recession on the other hand. Saleable steel products sold by SAIL which stood at 78.17 lakh tonne in 1995-96 declined to 72.83 lakh tonne and 73.66 lakh tonne during 1996-97 and 1997-98.

Market share of SAIL in the areas of Hot Rolled (HR) coils/sheets/plates has declined from 40.6 per cent in 1995-96 to 34 per cent in 1997-98 as SAIL has lost substantial ground to new entrants in the steel market. Limitations of the Central Marketing Organisation of SAIL through which it's sales are effected are discussed in details in Chapter-2 of this report.

4. Information technology is another area where the Company's lack of preparedness for the future is evident. SAIL introduced computer system in its Integrated Steel Plants/Units in early sixties which was expanded gradually by investing Rs.153.71 crore (up to 31 March 1999) on mainframes, multiplexors, supermini, mini systems and personal computers as also equipment with embedded chips. Their application included financial accounting, material management, sales invoicing, traffic management, production process control application and process automation. As most of the hardware/software systems held by the Company are more than 5 years old, they are prone to Y2K risk. Against the advice of Reserve Bank of India and the Securities and

Exchange Board of India to make all systems Y2K compliant by September 1998 and June 1999 respectively, the Company launched its belated compaign on Y2K related issues in November 1998 and formed a Task Force at Corporate level only in March 1999 to monitor the Y2K redressal. The extent of Y2K compliance carried out (June 1999) ranged between 20 per cent and 100 per cent in different areas of application.

5. This report is not a complete chronicle on the working of SAIL but it does throw light upon two other significant aspects of it's functioning viz., irregularities and limitations observed by audit in 'Import of Coking Coal' and 'Utilization of aircrafts owned by SAIL' as detailed in Chapters-3 and 4 respectively. Whereas the chapter on 'Import of Coking Coal' reflects the adhocism involved in purchase of an important raw material which constitutes a significant percentage of total inputs, the chapter on 'Utilization of aircrafts owned by SAIL' brings to light absence of professionalism and commercial prudence in use of important infrastructure facilities created by the Company at a huge cost. The areas of review covered in this report are merely four and the observations of audit are based on test check. But this limited exercise has also succeeded in highlighting serious symptoms of a large malaise inflicting SAIL which if not checked will completely destroy the health of this 'Navratna' Company.

CHAPTER 1 : MODERNISATION OF ROURKELA STEEL PLANT

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OVERVIEW

1. Introduction

Rourkela Steel Plant, a constituent unit of SAIL was set up in 1962 at a cost of Rs.220.10 crore with a capacity of one million tonne of steel ingot per annum. The capacity was expanded to 1.8 million tonne in 1969 at a further cost of Rs.160.21 crore.

2. Modernisation Scheme

A Modernisation Scheme to increase the capacity of the plant to 1.9 million tonne per annum (MTPA) of liquid/crude steel besides upgradation of technology and reduction in manufacturing cost was approved by the Government in principle in September 1986. The Government approved the cost estimate of Rs.2461 crore in October 1989 with the completion schedule as April 1995.

A few interesting points noticed were as under:

(a) The modernisation of RSP, though felt needed as early as in 1982 was finally cleared by the Government in October 1989. It took about 3 years for SAIL to finalise the project and the Government in turn, took more than 4 years to approve it.

[Para 2.03(i)]

(b) The rated capacity of 1.8 MTPA envisaged after the first expansion (1969) was never achieved and the maximum capacity was assessed by the consultant appointed for modernisation as 1.4 MTPA. Taking the base capacity as 1.4 MTPA the modernisation scheme envisaged an increase of 0.5 MTPA for which an expenditure of Rs.3954 crore was proposed in the Revised Cost Estimate (RCE) of May 1992. With this cost, perhaps a new steel plant could have been set up in the green field area. However, no techno-economic analysis of the two alternatives was made.

[Para 2.03(ii) &(iii)]

(c) The requirement of hot metal after modernisation was estimated to be 2 MTPA against the achievable capacity of 1.35 MTPA. No additional Blast Furnace (BF) was proposed in the modernisation scheme to meet the increased requirement of hot metal. The shortfall was proposed to be met by installation of raw material preparation units and modifications in the existing BFs. The actual availability of hot metal during 1996-97 and 1997-98 was about 1.4 million tonne.

[Para 2.04 (i)]

(d) A Continuous Casting Plant (CCP-I) was introduced in existing Steel Melting Shop (SMS-I) at a cost of Rs. 272 crore for casting slabs although there was surplus capacity in the existing Slabbing Mill and there was no provision for additional BF to

match with the requirement of SMS. As actual reduction in manufacturing cost was not achieved, investment of Rs.272 crore in CCP-I proved to be injudicious.

[Para 2.04(ii)]

(e) The designed size of the conveyor belt installed for carrying raw materials to the various production units was found to be inadequate resulting in spillage and overflowing of materials during conveying.

[Para 2.04(iii)(a)]

(f) The conveyor constructed for carrying sinter from Sinter Plant-II could not be connected directly to the BF due to operational problems. The conveyor was connected temporarily to Ore Bedding and Blending Plant (OBBP) conveyor resulting in forced operation of both the conveyors for carrying sinter affecting the smooth transportation of other raw materials. This necessitated transportation of 70.74 lakh tonne of raw materials during 1994-95 to 1997-98 to the consuming units direct through wagons without bedding and blending at an extra expenditure of Rs.5.29 crore.

[Para 2.04(iii)(b)]

3. Implementation

(a) Initial strategy of implementing project on a turnkey basis in suitable packages from Germany only had to be revised (June 1990) due to poor response and high price bids received from German parties, and tenders were invited from international parties. This led to a delay of 22 months and cost overrun of Rs.1493 crore.

[Para 3.01 (i)]

(b) SAIL/Ministry of Steel furnished misleading information to the Public Investment Board (PIB)/Cabinet Committee on Economic Affairs (CCEA) regarding progress of implementation of Phase-I, availability of increased production from Silicon Steel Mill and increase in project cost due to delay. Further, some vital information regarding major deviation in the commercial terms and it's financial implication, detailed reasons for delay, concrete action plan for telescoping the delay and likely impact of opening up of economy was not brought to the notice of CCEA.

[Para 3.01(ii) (a)& (b)]

(c) Tyazpromexport (TPE) led consortium was awarded work for Sinter Plant-II (SP-II) and Basic Oxygen Furnace (BOF) packages although the performance of TPE in modernisation of Durgapur Steel Plant (DSP) was not satisfactory. In SP-II package TPE became the lowest tenderer from second lowest after entertainment of revised financial package only from TPE and not from any other bidders.

[Para 3.01(vi)]

(d) The contract for modification of Hot Strip Mill (HSM) and Plate Mill (PM) was awarded on Mannesmann Demag Sack (MDS - a German consortium leader) even though their offer was higher by Rs.70 crore (approx.) than that of MECON. In the comparative statement of bids submitted to the ECOS in March 1992, the status of MDS was shown as Lowest 1 after allowing an advantage factor of Rs.115.15 crore towards loans committed to be arranged by MDS from KREDITANSTALT FUR WIEDERAUFBAU (KFW), Germany.

[Para 3.01(vii)]

4. Terms and Conditions of Contract

(a) No suitable penalty clause binding the consultants to make good the loss/damage due to non-achievement of guaranteed technological parameters was incorporated in the contract with the consultants.

[Para 4(i)]

(b) The condition relating to liability of leaders in case of global packages was relaxed and they were made liable only for the portion of supply of plant and equipment under their respective scope and not for the package as a whole. The dilution of liability of the leader defeated the very concept of a turnkey contract.

[Para 4(ii)]

5. Execution

(a) There was increase in the project cost due to acceptance of claims for additional items, under estimation and changes in scope in respect of the global packages amounting to Rs. 26.71 crore even though the same were not admissible as per terms of the contract.

[Para 5.01(a)(b)(c)]

(b) Steel materials worth Rs.9.50 crore were supplied to the contractors in excess of contractual quantity. These were recovered/withheld belatedly leading to undue financial accommodation to the contractors.

[Para 5.01 (a)& (c)]

(c) There was loss of Rs. 17.16 crore on account of differential excise duty which could not be recovered from M/s. Mukand and Siemens, due to non-adherence of contractual provisions.

[Para 5.01(b)]

(d) The contracts for Raw Material Handling System (Phase-I)and modification of Plate mill & Hot Strip Mill were awarded to Engineering Projects (India) Limited (EPI) although the performance of the contractor in modernisation of Durgapur Steel Plant (DSP) was dismal. An amount of Rs.30.33 crore representing direct payment to the

sub-contractors, issue of materials etc., beyond contractual provisions could not be recovered from EPI.

[Para 5.02(a)]

(e) Bhilai Engineering Corporation was awarded an order for supply of 18 flat wagons at a cost of Rs. 3.73 crore although the party was disqualified initially on technical grounds. Thus, the party, who was initially disqualified on technical grounds, was subsequently selected for placement of order. The performance of the party in execution of the order was dismal.

[Para 5.02 (e)]

(f) An amount of Rs.57.90 lakh incurred on purchase of equipment remained unnecessarily blocked for about 6 years (May 1999) as the plant failed to hand over the working site in time.

[Para 5.02 (f)]

6. Delay in completion

As per the original schedule, the project was scheduled to be completed by April 1995. However, the project was not completed in full even by March 1998. Out of 29 main packages, 27 packages had been completed and the remaining 2 were under various stages of completion. The delay in completion of individual packages ranged between 1 and 42 months from the contractual completion date. The likely completion cost of the project stood at Rs. 5112.13 crore, an increase of Rs. 2651 crore over the sanctioned cost (108 per cent increase).

[Paras 6 and 6.01]

7. Financing of the project

The ratio of debt to internal sources worked out to 12.2:1 as against 1:1 envisaged. The adverse ratio was due to failure of SAIL to contribute its share from internal sources.

[Para 7]

8. Post Modernisation Performance

(a) The envisaged production of 2 million tonne of hot metal after modernisation was not achieved as the Plant could produce only 1.4 MT (i.e. 70 per cent) of hot metal during 1996-97 and 1997-98. Similarly, against 1.1 MT of crude steel produced before modernisation, the actual production during 1996-97 & 1997-98 was about 1.2 MT i.e. even less than the base capacity level of 1.4 MT before modernisation.

[Para 8.01]

(b) Various techno-economic parameters envisaged after modernisation were not achieved. The BF productivity achieved during 1997-98 was 0.84 t/m3/day as against

1.13 envisaged. This was far below 1.39 t/m3/day and 1.45 t/m3/day achieved in Bhilai and Bokaro Steel Plants respectively during the same period. Further, the labour productivity continued to be very low at 49 t/man/year as against 97.40 t/man/year envisaged.

[Para 8.03]

(c) The Plant started incurring losses from 1995-96 onwards. The cumulative loss as on 31 March 1998 stood as Rs. 407.11 crore after adjusting the accumulated profit of Rs. 340.06 crore earned till 1994-95. The loss of Rs.374.14 crore during 1997-98 was understated by Rs.137.72 crore due to undercharge of depreciation/over-valuation of inventories. The loss is likely to go up in future due to additional burden of depreciation and interest to the extent of Rs.600 crore.

[Para 8.04]

9. Liquidated Damages

Till March 1998 an amount of Rs. 23.69 crore only was recovered/withheld towards liquidated damage as against the minimum recoverable amount of Rs. 112 crore. Of this, Rs.9.53 crore was refunded subsequently to 8 contractors on the ground that a final decision regarding recovery would be taken after completion of projects. Major part of LD so refunded related to projects already completed. No LD was recovered from the foreign contractors although there was delay of 12-14 months in all the global packages.

[Para 9]

10. Manpower and Training

Upto March 1998, there was a reduction of only 383 manpower in works department as against envisaged reduction of 4702. There was increase in manpower in Blast Furnace, Hot Strip Mill and Traffic and Raw Materials Department.

[Para 10]

11. Role of Consultant

There were deficiencies in the designs and drawings in six packages and Dasturco also failed to discharge their obligation in respect of inspection, monitoring and follow up of equipment supply in several cases. Despite these limitations and the fact that performance of the plant after modernisation revealed that the technological parameters envisaged in the DPR were not achieved., the agreement was extended from time to time and the total payment made to the consultant aggregated Rs. 115.49 crore (August 1998) as against the consolidated fee of Rs. 84.50 crore originally contracted for.

[Para 11]

12. Other Topics of Interest

(a) Timely long term measures to control flood inside the plant area were not taken resulting in loss of production and damage to the equipment valuing Rs.26.06 crore during 1993. Long term measures as recommended by Dasturco in June 1989 were taken up only in 1995 with some modification at a cost of Rs.31.75 crore.

[Para 12 (i)]

(b) There was an infructuous expenditure of Rs.1.0 crore on equipment procured for SAIL Combined Blowing technology which was dropped subsequently.

[Para 12 (ii)]

(c) M/s. Mukand, a contractor for Basic Oxygen Furnace (BOF) package neither passed on the benefit of MODVAT credit amounting to Rs.1.42 crore nor returned the bills of entry of the same amount.

[Para 12(iii)]

1. INTRODUCTION

The construction of integrated steel plant at Rourkela (Orissa), a constituent unit of Steel Authority of India Limited (SAIL) with a capacity of 1 million tonne of ingot steel per annum was completed in 1962 at a cost of Rs.220.10 crore with German technical assistance. The capacity was expanded to 1.8 million tonne per annum (MTPA) in 1969 at a further cost of Rs.160.21 crore.

The main units of the Rourkela Steel Plant (RSP) upto 1.8 million tonne stage were Coke Ovens, Blast Furnaces, Steel Melting Shop and Rolling Mills consisting mainly of Hot Rolling Mills and Cold Rolling Mills with various constituent units viz. Blooming and Slabbing Mill, Plate Mill, Hot Strip Mill, Electric Sheet Mill, Electric Resistance Welded Pipe Plant, Spirally Welded Pipe Plant (installed later in 1976) and units producing Cold Rolled sheets and strips, Galvanised sheets, Tin plates, etc.

A Silicon Steel Mill consisting of Cold Rolled Non-Oriented (CRNO) and Cold Rolled Grain Oriented (CRGO) was added during October 1984 and April 1989 respectively at a total cost of Rs. 178.31 crore.

The main saleable products of RSP were Plates, HR Coils and Sheets, CR Coils and Sheets, Galvanised Sheets, Tin Plates, Dynamo Sheets, ERW Pipes, SW Pipes and Silicon Steel Sheets etc. However, the rated capacity of 1.8 million tonne of ingot steel per annum as envisaged in the Detailed Project Report (DPR) of 1961 could never be achieved by the plant in the post expansion period.

A review of modernisation of RSP was conducted between *September 1997 and March 1998.* Out of 29 main packages and 56 auxiliary packages entered into by SAIL, *22 main packages and 7 auxiliary packages were covered* in the review. The findings of the review are given in the following paragraphs.

2. MODERNISATION SCHEME

In a meeting convened by the Secretary (Steel), Government of India on 5 March 1982, it was decided that RSP and its consultant (MECON) should work out a plan for modernisation of the plant which would aim at upgrading the existing technology and process as well as replacement of aged equipment. Accordingly, an approach note was prepared by MECON in May 1982 followed by an investment proposal in July 1982. The proposal with an estimated capital investment of Rs. 1695.30 crore was approved by SAIL Board in September 1982 and forwarded to the Government in October 1982. But no investment decision could be taken by the Government due to a difficult resource position.

Subsequently in May 1985, SAIL submitted a revised proposal to the Government for modernisation of the plant at a cost of Rs.807 crore. The Government accorded approval on 10 September 1986 for incurring an expenditure upto Rs.5 crore for taking up preliminary work and preparation of Detailed Project Report (DPR). The Government further directed that a full fledged investment proposal for renovation and technological upgradation of the plant should be submitted by the middle of September 1986. Accordingly, SAIL commissioned M/s.M.N.Dastur & Company (Dasturco) in September 1987 exactly after a gap of one year to prepare a DPR which was submitted by them in September 1988.

The modernisation scheme was planned to be implemented in two Phases. *Phase I was to upgrade basically the raw materials preparation while Phase II was meant for augmentation of the capacity and introduction of latest technology* in most of the main production units and use of indigenous technology in other units.

2.01. Cost Estimate

SAIL approved the cost estimate of Rs.1600 crore (based on 4th quarter of 1986) for total modernisation of RSP, including Rs. 415 crore for Phase-I of the project in May 1987. The Government, however, approved Rs. 415 crore in July 1988 for Phase -I modernisation and directed SAIL to submit the Definitive Cost Estimate (DCE) for investment decision by 4th quarter of 1988. The Company submitted a cost estimate for Rs.2627 crore to the Government in September 1988. The total modernisation project was approved by the Government in October 1989 at an estimated cost of Rs.2461 crore (foreign exchange component Rs.396 crore) based on 4th quarter of 1988. The Government further indicated that the estimated *cost of Rs.2461 crore was the final estimate* for which the project authorities *would be finally held accountable and directed SAIL that the total project be completed within 66 months i.e. by April 1995.*

2.02. Strategy

While conveying approval of the Government for the modernisation scheme, the Ministry of Steel (MOS) intimated in October 1989 the strategy to be adopted by SAIL for implementation of the project including procurement of supplies and services within the time and sanctioned cost. The main features of the implementation strategy were as follows:

(i) The project would be implemented with Dasturco as the prime consultant of SAIL. SAIL would be fully responsible to the Government for timely completion of the project within the sanctioned cost.

(ii) The project would be implemented on a turnkey basis in suitable packages for both indigenous and global packages.

(iii) The turnkey contractors for the packages to be tendered outside India shall be selected through general tenders to be floated in the Federal Republic of Germany (FRG). This has been commented upon at para 3.01(i)

(iv) Indigenous supplies and services were to be enhanced to the maximum possible extent so as to reduce the foreign exchange outgo to the minimum.

(v) In respect of indigenous packages, offers from parties with proven experience and capability within India were to be invited.

(vi) An Empowered Committee of Secretaries (ECOS) to the Government of India was to be constituted by the Government who would be authorised to accord release of foreign exchange, clearance for imports, decision on award of contract, approval of offers of credit etc.

(vii) The system of performance guarantees and responsibilities of the contractors was to be adequately covered by the contractual obligations including financial liabilities.

The idea of tendering global packages only in FRG was subsequently dropped due to poor response and high price bids received from German parties and a revised strategy was adopted by the Government in June 1990 directing SAIL to invite tenders for global packages amongst international parties prequalified for the purpose.

However, the directives given by the Government were not strictly adhered to, the impact of which has been commented upon at appropriate places in the review.

2.03. Main objectives

The main objectives of the modernisation scheme included a steady production of 1.9 million tonne per annum of liquid/crude steel, reduction in energy consumption, reduction

in cost of production, improvement in techno-economic performance besides upgradation of technology and overcoming obsolescence of equipment.

It was envisaged that the above improvements would be achieved by installing some new major facilities viz. Basic Oxygen Furnace (Rs.335.39 crore), Continuous Casting Plant (Rs.266.99 crore), Raw Material Handling System (Rs.201.62 crore) and a new Sintering Plant (Rs.128.31 crore). Besides these, modification in the area of Hot Strip Mill & Plate Mill and Coal Handling plant and additions of some other units viz. Partial Briquette Blend Charging Plant, Oxygen Plant etc. were also envisaged.

The entire modernisation project was proposed to be financed out of SAIL's internal resources, foreign loans and Steel Development Fund (SDF)/internal borrowings with debt to internal resources ratio of 1:1.

Some of the interesting points noticed in audit are as under:

(i) The modernisation of RSP, though felt needed as early as in 1982 was finally cleared by the Government in October 1989. *It took about 3 years for SAIL to finalise the project and the Government in turn, took more than 4 years to approve it.*

(ii) The modernisation project envisaged increase in capacity of liquid/crude steel from 1.8 MTPA to 1.9 MTPA. The rated capacity of 1.8 MTPA was never achieved and the maximum production which the plant could reach was assessed by the consultant as 1.4 MTPA. Thus the project was meant primarily to increase the capacity of the plant by 0.5 MTPA only for which investment of Rs.2461 crore was estimated. While analysing the revised cost estimate of Rs.3954 crore, the Additional Secretary and Financial Advisor (AS&FA), Ministry of Steel (MOS) observed that the total investment of nearly Rs.4000 crore for just adding 0.5 MTPA was exorbitant. SAIL/Ministry of Steel explained to the Cabinet Committee of Economic Affairs (CCEA) that although after modernisation there would be only a marginal increase in the capacity, the proposed capital expenditure was mainly for technological upgradation which was necessary to improve the efficiency of the plant and to reduce its manufacturing cost.

However, even after completion of the major units at a cost of more than Rs.5000 crore the actual production of crude steel continued to remain *below the base level of 1.4 MTPA and there was no reduction in the manufacturing cost.* The production in the plant *continued to be tonnage oriented and not regulated as per the market requirement.* These aspects have been commented upon at appropriate places in the review.

(iii) As per the latest indication available for setting up new steel plants in India, the cost of construction of a plant of one MTPA capacity with Blast Furnace (BF) - Basic Oxygen Furnace (BOF) route would be about Rs.2,500 crore. *With the revised estimated cost of Rs.3954 crore on RSP modernisation, perhaps a new steel plant could have been set up in green field area.* However no comparative analysis of the two alternatives was made.

(iv) While conveying Government's approval for Phase-I of the project in July 1988, the Ministry of Steel and Mines directed, as under:

"SAIL must ensure that the person to be incharge of the project should be so selected that he not only remains in-charge of the project but also ensures its completion within the prescribed period, so that in case there is any overrun in time, he could be held responsible".

The above directives were not followed and *as many as seven changes* in the incumbency of the Executive Director (Project) were made during the period of execution of the project and the tenure of project in-charge ranged *from 5 months to about 2 years.* Frequent changes of the project in-charge caused lack of continuity of understanding of the total work and consequently there had been slippages in all the areas. No responsibility was fixed on any of the project in-charges.

(v) The consultancy work for modernisation was initially assigned to Metallurgical & Engineering Consultants (India) Limited (MECON), a public sector undertaking, who submitted a Feasibility Report in March 1986 for a sum of Rs. 25 lakh. However, the Report was not made use of by the Company either at RSP or elsewhere. Subsequently M/s. Dasturco was asked in July 1986 to go ahead with the preparation of a Techno Economic Feasibility Report for the modernisation of RSP.

(vi) Government intimated in October 1989 that SAIL should implement the project with M/s. Dasturco as their prime consultant and that the relationship and distribution of function between SAIL and Dasturco might be determined by mutual agreement in such a way that for each activity in the project implementation there is a fixed point of responsibility either in SAIL or in Dasturco or both.

However, the relationship and distribution of function for each *activity was not clearly defined and neither SAIL nor Dasturco* assumed responsibility for slippages in various activities. This has been commented upon at appropriate places.

(vii) The envisaged debt equity ratio of 1:1 as approved by the Government was not maintained *due to financing the project more from loan sources instead of utilising internal sources.* Before approval of the Government for modernisation, SAIL projected internal resources to the extent of Rs.9492 crore which included higher realisation on account of increase in sale price after decontrol and issue of fresh equity shares. However, the requisite internal resources could not be made available for the modernisation scheme during VIIIth plan period due to expenditure incurred for other ongoing schemes. The actual amount subscribed was only Rs.302.98 crore. *With this, the actual debt equity ratio worked out to 12.2:1.* This has been commented upon in Para 7 also.

2.04. Shortcomings in the Scheme

The following shortcomings were noticed in the modernisation scheme:

(i) The requirement of hot metal after modernisation was estimated to be 2 MTPA as against the rated capacity of 1.6 MTPA of the existing Blast Furnace (BF) which was never achieved due to several constraints and the base capacity was assessed by the consultant as 1.35 MTPA. The scheme did not envisage installation of an additional BF for meeting the increased requirement of hot metal after modernisation. The shortfall in the availability of hot metal was proposed to be met by installation of raw material preparation units and some modification in the existing B.Fs. MECON, however, in their feasibility report of March 1986 had stressed the need for additional BF in addition to schemes for improved raw material preparation and sintering activities.

While debating on the investment proposal on the modernisation scheme MECON pointed out (March 1987) that the increase in productivity figures of BF anticipated after modernisation was optimistic. M/s. Dasturco, the consultant for modernisation, however, insisted that the projected productivity could be achieved based on various changes in the operating condition to be brought out in the modernisation scheme. In view of the contradictory opinion expressed by the two consultants, Shri Trilochan Singh, Director SAIL, while expressing doubts over availability of adequate hot metal, *observed in May 1987 that the entire downstream investment could prove infructuous if 2 million tonne of hot metal was not achieved.* Similar doubts were also expressed by the Additional Secretary & Financial Advisor (AS&FA), Ministry of Steel who even suggested the following in June 1987:

"A suitable penalty clause should be incorporated in the contract with the consultants so that the client (RSP/SAIL) will have the rights to realise the fees paid to the consultants in case the commitment is not fulfilled and the full benefit of the modernisation cannot be realised due to shortage of hot metal".

However, the committee of Directors of SAIL who examined the issue in depth had satisfied itself that the envisaged productivity of the existing BFs was achievable. Accordingly the project was cleared without any provision for an additional BF.

It was noticed that even after commissioning of raw material preparation unit, the actual production of hot metal did not improve as expected and remained at the level of about 1.4 MTPA during 1996-97 and 1997-98, as against creation of facilities for crude steel production to the extent of 1.9 MTPA. The mis-match in production facility would *lead to perpetual shortage of hot metal* and might result in *non-achievement of full benefits even after investment of more than Rs.5000 crore.* As there was uncertainty in actual production of hot metal right from the beginning, investment in new down stream units such as Continuous Casting Plant *(CCP)-I should have been avoided* as commented upon in sub-para-ii.

(ii) The modernisation scheme inter-alia envisaged installation of a continuous casting plant (CCP-II) along with the BOF shop (SMS-II) to produce 13.55 lakh tonne of slabs through continuous casting. In addition, a CCP-I was installed in the existing steel

melting shop (SMS-I) to cast 3.05 lakh tonne of slabs at a cost of Rs.272 crore. It may be mentioned that the existing slabbing mill had a capacity to process 15.30 lakh tonne of slabs per year. Even after meeting the entire demand of the SMS-I, there was a surplus capacity of more than 9 lakh tonne in the slabbing mill. Further, none of the alternative scheme suggested by MECON envisaged continuous casting machine in SMS-I which indicated that there was no *technological compulsion for introduction of the facility in SMS-I.*

Thus, the investment of Rs.272 crore in CCP-I, when there was a surplus capacity in the slabbing mill, was injudicious.

Management stated (September 1998) that continuous casting facility in the SMS was envisaged to produce slabs in an efficient and cost effective manner, improve the overall yield, quality of the product, lower arisings and reduce energy consumption.

However, actual reduction in cost was not noticed in the slabs produced at CCP-I. There was a marginal saving of Rs.332 per tonne (variable cost) during 1997-98 as compared to the slabs produced in the slabbing mill. This does not justify investment of *Rs.272 crore as the burden of depreciation and interest alone would be about Rs.1320 per tonne.* Further, as there was uncertainty in the availability of adequate *quantity of hot metal and fund position was tight,* the plant could have managed without CCP-I. The details of arisings along with norms in different mills though called for, were not furnished.

(iii)(a) The Raw Material Handling System (RMHS) under Phase-I modernisation was installed with facilities for centralised unloading of all incoming ore and flux and delivery of the same to the various consuming units after proper bedding and blending. The transportation of the materials from wagon unloading area to various locations viz. storage yard, crushing plant and to the consuming units was envisaged to be carried out through belt conveyors which were designed to be of 1000 mm width as against the standard width of 1400 mm. The inadequate size of the belt had led to frequent spillages and overflowing of raw materials during conveying and jamming of the chutes due to inadequate size of the chutes vis-a-vis sticky nature of raw materials. This became more acute in the rainy season and the sticky material had to be removed manually.

(b) The sinter produced in Sinter Plant (SP)-II is required to be transported to BF through conveyors. However, the SP-II conveyor could not be connected directly to the BF highline due to some operational problems. As an alternative measure, the conveyor was connected temporarily to Ore Bedding and Blending Plant (OBBP) conveyor leading to the BF. This resulted in forced operation of both the conveyors for carrying sinter affecting the smooth transportation of other raw materials to the consuming units. This necessitated transportation of 70.74 lakh tonne of raw materials to the consuming units direct through wagons without bedding and blending during the years 1994-95 to 1997-98 at an extra expenditure of Rs.5.29 crore. This also adversely affected the quality of raw materials and consequent productivity of BF.

3. IMPLEMENTATION

3.01. Global Packages

As per the revised implementation strategy approved by the Government in June 1990, the entire modernisation scheme was grouped into 29 packages, of which 5 packages were global. Advertisements inviting pre-qualification bids for the global packages were issued in June 1990. On the basis of applications received, 6 parties in each case were shortlisted and tenders invited in October 1990. In respect of one package (continuous casting plant-I), the quoted price being abnormally high, it was decided (January 1992) to implement it in a disaggregated manner and it was, therefore, excluded from the list of global packages. The comparative position of the bidders in respect of the remaining 4 global packages was submitted by SAIL in February 1992 for consideration of the Empowered Committee of Secretaries (ECOS). The ECOS in a meeting held on 6 March 1992 authorised SAIL to zero down on one party in respect of each of the 4 global packages. After negotiations, the following contracts were signed:

Name of the package	**Name of the Party**		**Ordered Value** (based on FE rates as per contract-Rs. in crore)	**Date of signing of contract**
	Leader	Associates		
Sinter Plant-II	TPE, Russia	Simplex, BHEL,NPCC	217.07	30.06.92
BOF Shop	TPE, Russia	MUKAND	592.13	05.08.92
CCP-II	MDH, Germany	MECON	502.82	15.08.92
Modification of HSM & PM	MDS, Germany	BTS,MECON Siemens India Siemens AG	466.63	15.08.92

Note:- In Executive summary report (June 1998) the figures mentioned are at variance with this. It is more than Rs.174.84 crore in all the aforesaid packages.

Some of the interesting points noticed in respect of the global packages were as under:

(i) The main consideration for adopting the initial strategy for procurement of plant and equipment only from Germany through limited tender was that the major portion of finance [660 million Deustche Marks (DM)] for the modernisation project would be available through German credit. Chairman, SAIL along with a team of experts visited Germany in 1988 to discuss with the prospective German suppliers. However, *no pre-economic survey was made to have an idea of the prices for the major plant and equipment prevailing in Germany.* The actual price bids received from the prospective bidders in Germany against three global packages were about three times higher (Rs.3331 crore) than the estimated cost of Rs.1218 crore. This necessitated the revision of strategy in June 1990, leading to a delay of about 22 months in the process and increase in price by Rs.1493 crore over the estimated cost. Thus, the initial strategy of the Company/Government to go in for limited tender from German *bidders only without ascertaining the probable price proved to be injudicious.*

The Management stated (September 1998) that the team of experts held mainly technical discussions with the prospective German suppliers and that prices as per standard commercial practices, were obtained through tenders only.

As the number of potential suppliers from FRG was comparatively small the *Chairman before undertaking a tour abroad along with his team of experts and firming up the strategy* should have assessed the cost of the equipment prevailing at that time in West Germany. This could have been easily done through international publications/global market intelligence/ consultant's data base and comparative analysis of bids available from Durgapur Steel Plant (DSP) modernisation.

(ii) (a) In the note submitted to PIB/CCEA in April 1992 SAIL/MOS mentioned the following:

- phase-I modernisation would be completed by July 1993 as scheduled, despite delay of more than six months in six packages.

- the benefits from increased production of silicon steel would augment the viability of the project.

- the delay of 22 months in placement of order for global packages did not result in any cost overrun. On the contrary there was a saving of more than Rs.800 crore.

- the internal rate of return (IRR) of the project as worked out by the Project Appraisal Division (PAD) would be 19.16 per cent and would not fall beyond 1 per cent even after assuming shortfall in production and increased manufacturing cost and remain attractive at over 18 per cent.

The actual position at the time of submission of the note to CCEA was as under:

- as per the completion schedule, out of 9 main packages under Phase-I, 5 packages were to be completed by April 1992, however, only 1 package was completed by that time and balance 4 were far behind the schedule. These were actually completed

between January 1993 and August *1994 causing a delay of 14 to 30 months.* In respect of remaining 4 packages, only one package was completed almost as per schedule (delay 1 month) and in case of other three packages the progress of work was slow and tardy and these were actually completed with a delay ranging from *18 to 38 months.*

- *CRGO Plant remained practically idle from the date of commissioning* (April 1989). The actual production of silicon steel during the years 1991-92 and 1992-93 was *3040 tonne and 400 tonne* respectively as against *the rated capacity of 37,500 tonne.* Incidentally, the production from CRGO during 1993-94 to 1996-97 was only 1153 tonne. There was no production during 1997-98.

- the saving of *Rs.800 crore was worked out on the basis of single offer* received from Germany, which management in reply to sub-para (i) above had admitted to be high as practically no competition had taken place, and, therefore it could not be treated as saving. This has been commented upon in para 6.01.

- Project Appraisal Division (PAD) had worked out that the adverse impact on IRR for 10 per cent *shortfall in production alone would be 2 per cent.* PAD had further brought out that the project would be more sensitive to *manufacturing cost rather than to shortfall in production* (Detailed comment may be seen in Para no.7). Further, the note was silent on IRR at various capacity utilisation levels.

(b) The note to CCEA was silent on the following points:

- there were *major deviations in commercial terms from the original proposal* such as relaxation of single point liability of the consortium leader, supply of steel and cement to the contractors at fixed price, linking of price variation clause in respect of plant & equipment to the wholesale price index of RBI etc., but the financial implication of the above changes were not brought out in the note[Detailed comment may be seen in Para 4(ii)].

- as per instructions of the Ministry of Finance, detailed reasons for *time and cost overrun indicating the responsibilities fixed were required to be incorporated in the* note to CCEA for approval of RCE. Despite a delay of 22 months and cost overrun of Rs.1493 crore, item-wise reasons for delay with financial implication and responsibility thereon were not specifically brought out in the note to CCEA.

- concrete action *plan to telescope the implementation schedule and to commission the Phase-II by December 1995* was not indicated.

- while working out the financial viability of the project, SAIL indicated higher sales realisation on account of decontrol. However, no mention was made *regarding likely impact of opening up of economy and reduction in customs duty.*

The facts indicated above show that *misleading information was furnished to CCEA and some vital facts were suppressed.*

(iii) (a) In the ECOS meeting held on 25 March 1992, the following decisions inter-alia were taken:

- SAIL Apex committee would effect further reduction in prices in respect of Continuous Casting Plant (CCP)-I and Hot Strip Mill (HSM) & Plate Mill(PM) package.

- transfer of additional scope of work relating to Hot Strip Mill to MECON.

- SAIL Apex committee would firm up the prices in all the packages and would report to the ECOS as soon as possible in April 1992.

However, Ministry of Steel/SAIL reverted back to ECOS *only in July 1992 i.e after the investment proposal was cleared by CCEA in April 1992.*

The Management stated (September 1998) that a reduction of Rs.30 crore for CCP-I package was obtained during discussion held by the Apex committee between March 1992 and June 1992. The reasons for delay in submission to CCEA were, however, not explained.

(b) SAIL took about 1 year and 4 months (from October 1990 to February 1992) for scrutinising the offers. The entire process of scrutinising, discussion, finalisation of orders and approval of the Government *was, however, hurriedly completed in about a month's time* by various Government agencies such as PIB, Planning Commission, ECOS, Ministry of Environment, Ministry of Steel and finally through CCEA. The investment proposal was cleared by *PIB/CCEA dispensing with the pre-PIB meeting and PIB without environment clearance.*

(iv) An Apex committee headed by Managing Director, Bhilai Steel Plant was constituted for finalisation of tenders. However, MD Bokaro *was substituted on 20 July 1991 as the Chairman of the Committee in place of MD Bhilai who left SAIL in July 1991. No member from the Law Department was included in the committee* even though the scope of the work of the committee included finalisation of commercial terms & conditions of the contract. Further, only *five out of seven members of the committee* signed the recommendation note submitted to the ECOS in March 1992.

The Management stated (September 1998) that the Apex committee associated the Executive Director (Law) as and when necessary. The reply is not factually correct as the Executive Director (Law) was associated with the committee only in July 1992 i.e. after finalisation of terms and conditions of the contract by the Apex committee in February/March 1992.

(v) SAIL in their note dated 8th February 1992 submitted to the ECOS mentioned that the prices quoted by the global bidders would need to be negotiated to bring them down further. However, the ECOS authorised SAIL on 6 March 1992 to zero down on one selected bidder in respect of each of the four global packages and directed SAIL to secure further reduction in prices through negotiations. This led to a situation where negotiations were held with one bidder only who, by action of *the ECOS, was already*

aware of the fact that the work was going to be awarded in his favour and was obviously reluctant to reduce the quoted price to the maximum extent.

The Management stated (September 1998) that SAIL could achieve further reduction of Rs.124 crore for these packages even after negotiating with zeroed down parties.

It was observed that out of Rs.124 crore, actual price reduction was Rs.83.7 crore and the balance amount of Rs.40.3 crore was on account of relaxation of commercial terms and conditions and reduction in scope of supply.

(vi) The order for Sinter Plant package was placed on Tyazpromexport (TPE) on the ground that their quotation was lower by Rs. 44 crore (as appraised to ECOS by the Chairman, SAIL). This was not factually correct as the actual difference in price after evaluation was only Rs.12 crore. The following facts were also noticed in this case:

- SAIL did not inform the ECOS regarding entertainment of a revised financial package only from TPE and not from any other bidder after the last date of receipt of bids as a result of which TPE became L1 from L2. The ECOS *was thus misled by SAIL regarding irregularities committed in evaluation of bids.*

- Chairman SAIL admitted in the meeting of the ECOS dated 6 March 1992 that the technology offered by M/s LURGI, a German bidder was superior to that of TPE. However, there was a change in the stand on 25 March 1992 when he explained to the ECOS that by and large both the Russian and German technologies were similar and the performance guarantee parameters of both *were also almost the same.*

- Serious doubts persisted even at the tendering stage about TPE's capability to complete the project in time and within cost and the Ministry of Steel had cautioned SAIL on this front. SAIL, however, ignored the advice and felt confident about TPE's capability to execute the project within the framework of the contract, even though unsatisfactory performance of TPE in Durgapur modernisation was reported to RSP in April 1991 itself. The role of TPE as the leader of the consortium was not found to be effective in BOF and SP-II packages of RSP. The actual performance of TPE in these packages had been discussed in the subsequent paragraphs.

(vii) The contract for modification of Hot Strip Mill (HSM) and Plate Mill (PM) *was awarded on Mannesmann Demag Sack (MDS - a German consortium leader) even though their offer was higher by Rs.70 crore (approx.) than that of MECON. In the comparative statement of bids submitted to the ECOS in March 1992, the status of MDS was shown as Lowest 1 after allowing an advantage factor of Rs.115.15 crore towards loans committed to be arranged by MDS from KREDITANSTALT FUR WIEDERAUFBAU (KFW), Germany.* It was clarified by the MOS on 29 February 1992 that according to the latest message received from KFW, irrespective of the suppliers, KFW credit would be available if the supplies were sourced in Germany. However, MECON, who had offered on 20 February 1992 for transfer of major portion of their imported supply to German source, for availing KFW credit, was not considered for award of the contract. At the instance of the ECOS, MECON was only associated with the package led by MDS. Out of the total contract value of Rs.544.64 crore, MECON's scope of work was for Rs.37.23 crore only.

4. TERMS AND CONDITIONS OF CONTRACT

Following deficiencies were noticed:

(i) The Government, while considering the proposal for modernisation (Phase-I) indicated in March 1988 that SAIL should obtain minimum performance guarantee from the consultant (M/s DASTURCO) at that stage and also a final performance guarantee at the earliest. SAIL, informed the Government on 23 March 1988 that consulting engineer would guarantee the performance of the plant after modernisation unit-wise as well as for integrated operation as per the parameters specified in the DPR. In case of any deficiency in the schemes/designs presented in the DPR, the required revision/rectification to the drawing and specification etc. would be carried out by the consulting engineer without any additional remuneration. SAIL further assured that performance guarantee would be further elaborated in the consultancy agreement.

However, the above *assurances of SAIL were not suitably incorporated in the contract signed with DASTURCO on 5 September 1991* as would be evident from Article 9.1 reproduced below:

"Consulting engineers do hereby guarantee that the respective facilities specified for the project to be implemented as per contract specifications for the packages will be capable of producing at the stipulated production rates and achieving technical indices and parameters in an integrated manner as envisaged in the DPR including subsequent changes as may be mutually agreed".

No suitable penalty clause binding the consultant to make good the loss/damage suffered due to non-achievement of guaranteed technological parameters was incorporated in contract. In the *absence of such a clause in the contract, the consultant could not be made liable for various deficiencies noticed during implementation of the project as indicated in para 11*

The Management stated (September 1998) that the consultancy agreement provided for re-do of the design and engineering services in the event of any deficiency due to reasons directly attributable to the consultants. The agreement also provided for liquidated damages for delay or failure in performance guarantee.

The fact, however, remains that no penalty clause was incorporated in the contract to enable RSP to realise the fee paid to the consultant so as to make good the loss/damage suffered due to non-achievement of guaranteed technological parameters as suggested by AS&FA, Ministry of Steel. Further the liability of the consultant in respect of liquidated damages was also limited to 5 per cent of the total contract price which was nominal.

(ii) Tender enquiries for global packages were issued in October 1990 specifying that implementation of the packages would be on a turnkey basis. One of the main considerations for awarding the work on a turnkey basis was to ensure single point liability from engineering to commissioning, performance guarantee and training of operational personnel for smooth and trouble-free operation and maintenance of the plant. The price quoted by the tenderers was on firm basis and obviously included the possible extra cost to take care of the financial liabilities under a turnkey contract which

might arise due to delay in completion, non-achievement of performance guarantee and also for extra/additional items required during execution of the work.

During negotiation with the bidders for global packages some of the principal contractors did not accept the overall liability for the entire package and some other important commercial terms. The Apex Committee, headed by Shri M.R.R. Nair, the then Managing Director, Bokaro Steel Plant, relaxed some of the commercial conditions and asked the tenderers to submit revised price bids on the following basis:

- steel and cement would be supplied by SAIL at the price prevailing as on Ist January 1992.
- any increase in the price of steel and cement beyond Ist January 1992 would be borne by SAIL.
- escalation in the prices of plant and equipment would be paid by SAIL as per wholesale price index published in the RBI bulletin.
- financial liability of the foreign parties in respect of indigenous portion would be deleted and foreign parties would be liable only for their portion. They would be responsible but not liable for the total package.

With this process, the single point liability of the consortium leaders was dilluted and each global package was split into 3 individual packages viz. imported equipment, indigenous equipment and design, engineering and supervision (foreign). Further, the financial liability of the consortium members (including the leaders) in terms of liquidated damages for delay/non-fulfillment of performance guarantee etc.,was also limited to a fixed percentage of the value of orders in their scope. Incidentally, it may be mentioned that the financial *implications of these changes were not indicated in the note to ECOS and CCEA* though the bidders themselves had mentioned some of the rigid commercial conditions as a reason for higher prices quoted by them. Relaxation in the commercial terms and conditions was a favourable factor to the bidders who could reduce their price bids. SAIL did not calculate or quantify the probable amount by which the bidders would be benefited, before they were asked to submit their revised price bids. It would have *been appropriate if the management had quantified the amount involved rather than leaving it to the bidders to reduce their prices.*

SAIL, however, justified their stand by explaining to the ECOS that even in that case it would stand to enforce and realise the liquidated damages for financial liabilities in respect of the entire package because SAIL would be free to enforce liability clauses equally and universally on all the parties, be it foreign or Indian in proportion to the value of work in their respective scope.

Since the overall financial liability of the leader was the *most important condition of the tender,* the relaxation made in this respect amounted to change in the original terms and conditions of tender and vitiated the entire exercise of tendering process and defeated the very purpose of a turnkey contract having single point liability. Further, no LD was recovered from the leaders of the consortium even though there were delays in all the global packages ranging from 12 to 14 months (para 9 refers)

The Management stated (September 1998) that since from the beginning, the global bidders had quoted their price with the deviation in respect of total liability to be borne by the principal contractors, the implication of change could not be quantified.

The Management's contention is not tenable as in the absence of financial implications of relaxation in terms and conditions, the extent of reductions made by the *bidders could not be compared with estimated savings particularly when relaxation was made in important terms and conditions and that too after shortlisting the parties.*

(iii) The contract for BOF package signed on 5 August 1992 with M/s.TPE/Mukand envisaged installation of a Gas Cleaning Plant and Gas Recovery System (GCP & GRS) valuing Rs.43.16 crore which was specified to be of "MECON-CLECIM" make. However, an option for a change in the make of GCP and GRS was allowed to the contractor under clause 4.2.1.16 reproduced below:

"The details of the gas cleaning and gas recovery system given in the document are based on MECON-CLECIM design. The option of selecting GCP out of the makes offered by the other technically acceptable bidders including MDH/OTTO, DAVY against this contract rest with the contractor subject to the same meeting the NIT requirement and purchaser's acceptance of the same proposal".

After signing the contract MUKAND approached RSP for a change of the vendor for GCP from MECON-CLECIM to DAVY although the consortium leader (M/s.TPE) had earlier confirmed that the basic engineering for BOF was being prepared on the basis of MECON-CLECIM gas cleaning plant. *Mukand's request for a change of make to Davy design was accepted by the management without finalising the benefit of price difference to be passed on to RSP which was about Rs.9.2 crore.* However, an amount of Rs.4 crore was claimed by RSP from MUKAND based on the recommendations of a committee. But no amount could be recovered as clause 4.2.1.16 of the contract was defective which only allowed the contractor an option for the change of make but did not require the financial benefit to be passed on to the purchaser.

The Management stated (September 1998) that an amount of about Rs.4 crore had been withheld from Mukand's bills on this account. It is interesting to note that a sum of *Rs.4.48 crore recovered from the party as LD for delay was subsequently refunded.*

Incidentally, the Gas Holder System supplied by M/s. Mukand failed prematurely on 19 July 1998 due to sudden rise of pressure in the gas holder causing severe damage to the equipment. An enquiry committee was constituted to investigate the causes of failure. The committee submitted its report in August 1998 and recommended some remedial measures to be implemented in a time bound manner which inter-alia included proper monitoring and control, safety shutdown, emergency actions, inter-locks and alarms changes in organisational set up, adequate training etc. along with restoration work on the damaged equipment and facilities. The restoration work was yet to be completed (May 1999).

5. EXECUTION

5.01 Global Packages

A scrutiny of records relating to execution of the global packages revealed the following:

(a) TYAZPROMEXPORT (TPE) as leader of the consortium with M/s Simplex, NPCC and BHEL bagged the order for Sinter Plant-II (SP-II) package at a total value of Rs.217.07 crore. As per the contract signed on 30 June 1992, the project was scheduled to be completed by July 1995. However, the project was actually completed in September 1996.

Following points were noticed :

- there was a delay of about 14 months in completion of the project due to delay in design engineering work by TPE, lack of resource mobilisation for civil work by NPCC and for structural work by Simplex. Further, lack of co-ordination with associate *members by TPE* and its failure *in the leadership role as the principal contractor resulted in delays in other activities.*

Although the delays were directly attributable to the suppliers, a sum of Rs.12.99 crore was paid to them up to January 1998 towards price escalation. *No escalation was payable to the contractors as they did not complete the work within the scheduled date and the delay occurred due to reasons not attributable to the purchaser (SAIL). This view was also upheld by the Solicitor General of India in his opinion dated 1 August 1998.*

- the likely cost of completion of the project had gone up from Rs.217.07 crore to Rs.261.94 crore. Out of the total increase of Rs.44.87 crore, *Rs.3.63 crore represented change in scope which was not admissible and should not have been entertained as per clause 2.10.1 (completeness) of the contract reproduced below:*

"Any supplies and services which might not have been specifically mentioned in this contract but are necessary for the design, engineering, manufacture, supply, construction, erection, commissioning, performance and/or completeness of the works, shall be supplied/provided by the contractors without any extra cost to the purchaser and within the time schedule for efficient and smooth operation and maintenance of the works under tropical conditions, unless expressly excluded from the scope of supplies and services in this contract".

The Management stated (September 1998) that the change in scope amounting to Rs.3.63 crore was necessitated due to procurement of additional spares etc. for smooth functioning of the plant after commissioning.

The reply of the Management is not tenable as the above amount was not admissible in view of the aforesaid provision of the contract.

- as per clause 3.6.7.1 and 3.6.7.2 of the contract RSP was required to supply 9900 tonne of steel to M/s Simplex at JPC price as on 1st January 1992 at fixed issue rate for fabrication of steel structures. However, M/s Simplex had drawn 14392 tonne of steel from RSP upto April 1995 i.e an excess drawal to the extent of 4492 tonne. Of this, 1303 tonne were returned/adjusted leaving a balance of 3189 tonne valued at Rs.6 crore which was belatedly recovered from the contractor through running account bills during November 1996 to March 1997. The issue of excess quantity of steel beyond contractual provisions had led to undue financial accommodation to the contractor to the *extent of Rs.6 crore at least for the period from April 1995 to November 1996/March 1997.*

(b) The contract for the BOF package was awarded on 5 August 1992 to TPE with M/s. Mukand as Indian associate at a total value of Rs. 592.13 crore. The project was completed in February 1997 as against the scheduled date of December 1995.

It was observed that:

- the likely cost of completion of the project had gone up from Rs.592.13 crore to Rs.752.89 crore. Out of the total increase of Rs.160.76 crore, an amount of Rs.9.30 crore was paid towards change in the scope of work, although as per contract no claim for change in the scope of work was admissible.

The Management stated (September 1998) that the extra sum had been paid to Mukand for additional items as per operational requirement added in the scope of work. No such claim was, however, entertainable as per clause 2.10.1 of the contract.

- as per clause 5.1.1.1 of the contract with Mukand the contract price was inclusive of excise duty as prevailing on 1st January 1992, and any increase or decrease in the taxes and duties after the base date were to be paid by/reimbursed to RSP. According to clause no. 3.5, the contractor was required to submit detailed break-up of the bills (billing schedule) indicating the amount of taxes and duties included therein. However, the billing schedule submitted by Mukand did not contain the amount of excise duty actually paid by them, as per contractual requirement.

Despite the above contractual provision, RSP approved the billing schedule and released progressive payments to the contractor by deducting unilaterally Rs.16.70 crore towards differential excise duty as the rate of excise duty was reduced after 1st January 1992. On a request made by Mukand for refund of the amount, the matter was referred to the Additional Solicitor General of India who opined as under:

"The contractor is obliged to give the detailed billing break-up for the approval of the purchaser as per the provisions of the contract. Failure to comply with the said contractual requirement would disentitle the contractor for reimbursement of progress payments..... it is not open to the purchaser (SAIL) to seek any deduction by way of adjustment on the ground that the excise duty was paid at a reduced level on account of the price of goods supplied by the sub-supplier being low...."

On the basis of the above opinion, a sum of Rs.15 crore was refunded to Mukand. Similarly, in the case of Hot Strip Mill and Plate Mill package, a sum of Rs.2.16 crore

was refunded to Siemens on account of differential excise duty. Thus non-adherence to the contractual provisions resulted in a loss of Rs. 17.16 crore. No responsibility for the above lapses was fixed. This could have been avoided had the contractual provisions been strictly enforced and release of progressive payments to the contractors withheld until the detailed break-up of actual excise duty paid by them was furnished.

- as per clause 3.10.4 of the contract, MUKAND was to supply fabricated building structures valued at Rs.48.64 crore, of which Rs.34.05 crore (70 per cent) represented cost of steel and Rs.14.59 crore (30 per cent) labour charges. Steel required for the job was to be supplied by RSP on cost recovery basis from their subsequent running account bills. However, while making payment for the mobilisation advance (10 per cent of the contract value), the value of steel (Rs.34.05 crore) to be supplied by RSP was not deducted and an advance of Rs.4.86 crore (10 per cent of Rs.48.64 crore) was released, resulting in excess payment of mobilisation advance and undue financial accommodation to the contractor to the extent of Rs.3.40 crore.

The Management stated (September 1998) that steel was not issued free of cost but on cost recoverable basis and hence no extra benefit had been given to the contractors.

The reply is not tenable as the contractor was not required to incur any initial expenditure for procurement of steel. As such, the payment of *mobilisation advance on this account was irregular and led to undue favour to the contractor.*

(c) The contract for implementation of continuous casting plant (CPP-II) was awarded on 15 August 1992 to M/s.MANNESMANN DEMAG HUTTENTECHNIKS (MDH) led consortium with MECON, a PSU, as Indian associate at a total value of Rs.502.82 crore. The plant was completed in February 1997 as against the scheduled date of February 1996.

Following points were noticed:

- against the ordered value of Rs.502.82 crore, the cost of completion of the project was estimated at Rs.654.16 crore. Out of the total increase of Rs.151.34 crore, Rs.13.78 crore represented increase in the scope of work which was not admissible as per clause 2.10.1 of the contract.

- during execution of the contract, MECON was issued steel items for fabrication of structures. The total value of the steel items issued upto December 1996 exceeded the contractual quantity by Rs.3.50 crore.

The Management stated (September 1998) that pending reconciliation, RSP had withheld Rs.3.50 crore from MECON's invoices. Final settlement was still awaited (May 1999).

5.02 Indigenous Packages

Indigenous tenders involving Rs.1100 crore (approx.) were invited in 1988 (Phase-I) and in 1990-91 (Phase-II) for the packages where design, engineering and know-how for the plant and equipment etc. were available within the country. Out of the 25 main indigenous packages, public sector undertakings bagged 11 packages individually, 5 packages jointly with other contractors and one package with a foreign partner.

Some of the interesting points noticed were as under:

(a)(i) Raw Material Handling System (Phase-I) was required to improve the quality of raw materials by proper bedding and blending and delivery to the production units through conveyors. The order for the above job was awarded to Engineering Projects (India) Limited (EPI), a public sector undertaking (PSU), in August 1989 at Rs. 130.40 crore with a completion schedule within 39 months i.e. by November 1992.

However, the progress of work by EPI was very slow right from the beginning mainly due to financial constraints of the contractor. Inspite of extra contractual support extended by RSP like direct payment to vendors/sub-contractors, payment of salaries to their employees etc., EPI failed to complete the work within the stipulated time. RSP took over the balance work worth Rs. 10.14 crore on 1 September 1994 at the risk and cost of EPI. The project was finally completed in January 1996 at a cost of Rs.159.15 crore. Even though the work was awarded on a firm price basis (except for escalations in wage rate and statutory taxes and duties), EPI started raising claims on various grounds i.e. increase in scope/quantity of work, extra items, cost of materials, wage escalation etc.) from November 1992 and the total amount of such claims stood at Rs. 86 crore. The above claim of EPI and RSP's counterclaim of Rs.96 crore were referred to the Permanent Machinery of Arbitration in January 1995. However, before the case was finally disposed of by the Arbitrator, EPI came up with a proposal in April 1996 for a mutual settlement. RSP accepted the proposal and the dispute was amicably settled in January 1997 according to *which RSP had to pay Rs.2.39 crore to EPI.*

It was observed that:

- EPI diverted the initial advance of Rs.13.04 crore and utilised the same elsewhere which resulted in financial crisis at the worksite.

- RSP paid Rs.28.05 crore direct to the vendors/sub-contractors of EPI which was beyond contractual provisions.

- RSP did not take timely *action to get clearance of the concerned Ministry to utilise the bank guarantee of Rs.9.78 crore to recover the dues from EPI.* The initiative was taken only in December 1994 when the matter was under consideration of the Permanent Machinery of Arbitration which did not allow SAIL to encash the bank guarantee till the dispute was settled.

- Out of the claims of Rs.86 crore lodged by EPI, only an amount of Rs. 10.20 crore towards increase in minimum labour wages was admissible under the contract and the

balance claim was mostly on account of increase in the scope/quantity of work, extra items, increase in the cost of material etc. which were not admissible as per clause 2.10 (completeness) of the contract. On the other hand, the counter-claim of RSP for Rs.96 crore contained claims for actual payments/services rendered to EPI towards advance payments (Rs.28.05 crore) materials issued (Rs.2.28 crore), hire charges for locos & equipment (Rs.6.07 crore), interest on advances (Rs.13.04 crore), risk purchase (Rs.16.76 crore) and others (Rs.29.80 crore).

It would be seen from the above that claims of *RSP were genuine and legally recoverable.* Inspite of the above advantageous position, RSP agreed for the amicable settlement instead of waiting for the Arbitration award and could not, thus, recover the amount even for the advance payments/materials issued to the extent of *Rs 30.33 crore. On the contrary RSP had to pay a sum of Rs.2.39 crore towards steel and extra spares given by EPI.*

Management stated (September 1998) that EPI had incurred extra expenditure on account of increase in quantum of work. Since there was apprehension that Arbitrator was likely to consider the loss made by EPI on account of substantial rise in quantity, RSP opted for conciliation.

The fact, however, remains that even after going for conciliation, RSP did not gain anything. On the contrary it had to forego even the advance payments/materials issued to the extent of Rs.30.33 crore.

(ii) Despite poor performance in case of RMHS package, contract for reheating furnaces for Plate Mill and Hot Strip Mill was awarded to EPI and Stein Heurtey, France on 25 January 1993 on a turnkey basis at a total price of Rs.197.07 crore. The work was scheduled to be completed in October 1994 in respect of Plate Mill and in August 1996 in respect of Hot Strip Mill. While the work in Plate Mill was completed in August 1995 (delay of 10 months), there was very slow progress of work in the Hot Strip Mill area due to delay in design and engineering, equipment supply, resource mobilisation and financial constraints of the contractor. Even in respect of Plate Mill area, the performance was not satisfactory. The output of plate ranged between 57 and 58 tonne per hour (TPH) as against the required output of 100 TPH. The work in Hot Strip Mill area was taken over by RSP in September 1994 and awarded for Rs.12.38 crore to other agencies at the risk and cost of the contractor and an amount of Rs.31.24 lakh was withheld for the delay. The work was yet to be completed (May 1999).

The Management stated (September 1998) that past performance of EPI was evaluated. Though there was some apprehension EPI was considered based on the strengths of their collaborators who were the world leaders in reheating furnaces.

The Management's reply is not tenable as the performance of EPI in "phosam plant" and "plant water supply packages" of DSP modernisation was also dismal which led to pre-mature termination of the contract. Even the past experience with EPI, in respect of Silicon Steel Mill of RSP was not brought to the notice of the Apex committee/MOS. Thus, the past experience with EPI, its financial soundness and capability to handle turnkey *projects of this magnitude were not taken into account before awarding the contract to them.*

(b) The partial briquette blend charging plant (PBBCP) was required to improve the quality of BF coke. The capacity of the plant was 80 TPH for each of the two streams of the briquetting unit. An order for turnkey implementation of the plant was awarded to Beekay Engineering Corporation on 3 December 1992 at Rs.53.70 crore.

The following points were noticed :

- the L2 tenderer (M/s Simplex) offered a higher capacity press (90 TPH) at Rs.57.40 crore. However, the L2 tenderer was not given a chance to quote for the press of lower capacity as required by RSP. Such an action could have given an opportunity to take advantage of competitive bidding. The Management stated (September 1998) that after ascertaining the requirement, 80 TPH was considered in the tender specifications.

Although the management considered the capacity of the press to be 80 TPH, this was not specifically mentioned in the tender document, rather it was left to the contractors to calculate the same. As such there was scope for doubt about the actual *requirement of the plant.*

- there was a delay of about 16 months due to change in layout of conveyor routes, non-availability of old drawings and severe site constraints and the work was finally completed in November 1996 as against July 1995 stipulated in the contract.

- Beekay was given a credit of Rs.2.5 crore for drawing steel materials from Bhilai Steel Plant beyond contractual provisions. This, although adjusted subsequently, amounted to an undue favour to the contractor.

- The actual production of the plant during 1997-98 was only 1.43 lakh tonne (approximately 31 TPH at the rate of 13 working hours per day) against the capacity of 160 TPH (for two press).

The Management stated (September 1998) that with lesser number of *batteries operating, PBBC plant had operated at lower level to match with coke oven demand of briquette.*

The contention of the management is not tenable as the requirement of briquette in the coke oven was 30 per cent of dry coal charge which worked out to 4.51 lakh tonne in 1997-98. Against this, PBBCP could produce only 1.43 lakh tonne which was 19 per cent of its capacity. Even assuming that the entire quantity of 4.51 lakh tonne was produced, the actual percentage would have been 60. This shows that actual requirment of PBBCP was not correctly worked out.

(c) Heavy Engineering Corporation (HEC), a PSU, bagged the order for Raw Material Handling System (RMHS) Phase-II at a price of Rs. 92.72 crore and was required to commission the project successfully by April 1994. However, the work could not be completed within the scheduled time due to inadequate resource mobilisation by the contractor and delay in design and engineering of the equipment etc. RSP took over part of the balance activities from HEC in January 1996 and awarded the same to other contractors/suppliers at a total price of Rs. 3.92 crore. RSP recovered neither any amount from HEC towards risk cost nor towards liquidated damages. On the contrary, a sum of

Rs.4.61 crore was paid to HEC towards escalation even for the period beyond the contractual completion date. The work was completed in October 1997 at a cost of Rs.111.35 crore registering an increase of Rs.18.63 crore in the project cost with reference to ordered value.

The Management stated (September 1998) that the extra amount incurred by RSP in the package would be settled with HEC while closing the contract.

(d) The order for Conveyors to and from Sinter Plant-II was awarded to M/s Braithwaite & Company Limited, a PSU, in September 1991 on a turnkey basis at a total price of Rs.19.50 crore. The project was scheduled to be completed by December 1994. Due to poor performance of Braithwaite, RSP took over the balance portion of work on 27 March 1995 at their risk and cost and awarded the same to other parties for Rs.10.58 crore. The work was completed (without linking to BF highline) in September 1996 at cost of Rs.26.11 crore. There was thus an increase of Rs.6.61 crore in the cost.

No amount had been recovered from the contractor so far (September 1998). It was interesting to note *that an advance of Rs.3.79 crore was still outstanding against the party though risk purchase clause was invoked.* The details of packages and purposes for which risk and cost purchase clause was invoked, though called for, had not yet been furnished (May 1999).

(e) A letter of intent (LOI) for supply of 18 flat wagons with hood and refractory lining at Rs.3.73 crore was issued in favour of Bhilai Engineering Corporation (BECO) on 2 January 1995 with the stipulation to supply 3 wagons within 6 months and the balance at the rate of one wagon per month thereafter.

The following points were noticed:

- The offers of BECO and that of BEEKAY were rejected by the tender committee as well as by the consultants on the ground that they had indicated a high heat loss of slabs and their capability in designing the insulated hood was inadequate. However, when the recommendation of the tender committee was put up to Shri P. Garg the then Executive Director (Project & Modernisation) for approval, he remarked as under:

"We may seek further clarification from disqualified parties. Merely on calculation, good parties need not be dropped. Committee may reconsider and seek further clarifications".

The tender committee met again on 23 November 1994 and after further clarifications received from the parties found the offer of BECO technically acceptable. Thus, the party, who *was initially disqualified on technical grounds, was subsequently selected for placement of order.* The performance of the party in execution of the order was dismal.

- BECO did not supply even a *single wagon within two years of LOI on the ground of delay* in approval of drawings and specification by the consultants. The order for 15 wagons was cancelled with the approval of Shri I.C. Jha, Executive Director (Project & Modernisation) in December 1996 without any financial repercussions and the party was asked to supply the balance 3 wagons immediately (by 31 December 1996).

- BECO supplied 3 wagons in May 1997 which were put to use in June/July 1997. However, 2 wagons developed problems and failed prematurely in August 1997. Management stated (September 1998) that BECO had since rectified the defects in the wagons.

- Hood and refractory materials valuing Rs.18.41 lakh supplied by BECO remained unutilised due to change in the operating practice of transporting cold slabs instead of hot slabs.

- 12 wagons without hood and refractory lining were procured in September 1997 from other sources at an extra cost of Rs.32.13 lakh which could not be recovered from BECO as the order with them was cancelled without invoking risk purchase clause. Management stated that in the process of procuring wagons directly by cancellation of order on BECO, RSP had not lost, rather gained a sum of Rs.31.12 lakh.

The reply is not tenable as the wagons procured subsequently were without hood and refractory lining whereas the order placed on BECO was for wagons with hood and refractory lining. Hence these were not comparable.

- 6 wagons were fabricated by the plant through in-house facilities at a cost of about Rs.10 lakh per wagon which was much cheaper than *the procurement cost of Rs.17.78 lakh per wagon (without hood).*

(f) An order for installation of Railway Signalling and Communication System in different areas viz Raw Materials yard, Hot Metal movement track and Hot Slab Movement Track was placed on M/s. Crompton Greaves Limited in November 1991 at a total value of Rs. 3.18 crore.

The contractor supplied all the equipment by June 1993, but the same could not be commissioned as RSP failed to hand over the working site in time. The work in respect of Raw Material yard was finally completed in June 1995 and that of Hot Metal movement area in April 1997. However, in respect of Hot Slab movement area, contractor demanded an additional amount of Rs.2.42 crore due *to revision in drawing and layout plans by the consultant.* The Management, therefore, decided to re-tender the job. However, the quoted price on re-tender, being abnormally high, the plan for installation of the system in Hot Slab movement track was deferred. Equipment valuing Rs. 57.90 lakh supplied by M/s. Crompton Greaves for the above work remained unutilised since June 1993.

The Management stated (September 1998) that these equipment would be utilised as spares for Raw Material yard signalling and Hot Metal movement track signalling areas. Even if the management is able to utilize the equipment at a later date, the fact is that the amount (Rs.57.90 lakh) remained unnecessarily blocked (May 1999) for about 6 years.

6. DELAY IN COMPLETION

According to the Detailed Project Report (DPR) of September 1988, the modernisation project was to be completed within 5 years. However, in October 1989, the Government indicated *April 1995* as the project completion date which was subsequently extended to December 1995. While forwarding the note to PIB for extension of the project completion period, SAIL stated:

"a tight schedule had been aimed at for completing the project. This had been motivated by the need to telescope the implementation period as SAIL/MOS would like to make up, to the extent possible, for the delays already occurred. This schedule is based on the discussions that have taken place with the tenderers for the global packages and is consciously kept somewhat tight. But at the same time this is considered workable."

Despite the assurances given by SAIL/MOS for completion of the project within the revised time schedule, the project could not be completed within the stipulated time. As on 31 March 1998 *out of 29 main packages, 27 packages were completed and the remaining 2 packages were under various stages of completion. The delay in completion ranged between 1 and 42 months from the contractual completion date.* The actual delay in respect of each of the packages is indicated in **Annexure -I**.

The main reasons for delay as reported by the management were as follows:

- delay of about 22 months in finalisation of orders for Phase-II packages due to change in the strategy for implementation of the project on global packages.
- inadequate deployment of resources for design engineering work by the contractors for the global packages and critical indigenous packages (M/s. TPE, MECON, Simplex, BTS and EPI).
- inadequate mobilisation of resources at site by the contractors particularly EPI, MECON, Mukand, Simplex and HEC/BTS.
- slow progress of structural fabrication work of all global packages (particularly BOF Shop).

The time overrun could have been avoided to a great extent had the Company *taken the following measures:*

- adoption of a firm strategy for open global tender at the initial stage.
- proper scrutiny regarding financial and technical capability and competence of the contractors/sub-contractors.
- insertion of a suitable clause in the contract regarding the financial liability of the consortium leaders/consultants.

- strict adherence to the terms and conditions of the contract.
- retaining one officer as project in-charge till completion of the project.
- fixing of responsibility of the core group members for each package and utilisation of their services uninterruptedly without any transfer to other departments till the completion of the package.
- fixation of responsibility among various agencies (including consultants) for each stage of delay.

These aspects have been commented upon at appropriate places in the review.

The Management stated (September 1998) that responsibilities of the Core group members for each package were fixed and all senior members and majority of others were retained till the completion of the packages. The responsibility for time overrun in the package had been/was being fixed for all concerned agencies.

It was, however, observed that three out of five members of the Core group in RMHS (Phase-I) package were transferred before completion of the project. This was one of the main reasons for delay in completion of the RMHS package. Frequent changes of the project in-charge also led to slippages in all the areas.

The details regarding fixing of responsibility for time overrun on the concerned agencies (including the consultant), though called for, were not furnished (May 1999).

6.01 Cost Overrun

The Ministry of Steel while conveying (October 1989) the sanction of the Government for Rs.2461 crore had indicated that SAIL would be fully responsible to the Government to complete the project within the time and cost estimate ensuring at the same time that there was no loss of current production.

In April 1992 SAIL submitted a Revised cost estimate (RCE) of Rs.3954 crore to the Government based on the tenders finalised for various packages under Phase-II. The increase in the project cost by Rs.1493 crore was mostly on account of delay of 22 months in finalisation of global packages. However, no responsibility for the cost overrun was fixed as SAIL explained to the CCEA that delay in placement of orders for global packages had not resulted in any cost overrun, on the contrary, it had resulted in bringing down the project cost significantly as there was a saving of more than Rs.800 crore in the cost of global packages.

The position was not factually correct as the saving of Rs.800 crore stated to have been achieved was calculated with reference to the price obtained in March 1990 from German bidders where there was no competitive bidding and only one party quoted for each package. In fact, there was a cost overrun of Rs.804.41 crore for global packages compared to the sanctioned cost of Rs.1218.40 crore.

The RCE of Rs.3954 crore was approved by the Government in May 1992. While conveying the sanction, the Ministry of Steel desired that if there was an increase in the approved RCE exceeding 20 per cent or if there was any significant change in the scope of the scheme as approved by the Government, a fresh approval of the Government would be necessary. The anticipated cost of completion of the modernisation project was Rs.5112.13 crore which is 29 per cent higher than the RCE of May 1992. However, fresh approval of the Government was not obtained (May 1999). Further it was Rs.2651 crore more than the sanctioned cost of Rs. 2461 crore, i.e. an increase of 108 per cent.

The cost overrun of Rs. 2651 crore was attributed to the following reasons:

	(Rs. in crore)	
A. Physical reasons		
Change in scope/volume	90	
Under-estimation/change in quantity	13	
Deletion/addition	(-)08	
		95
B. Monetary reasons		
Price escalation	1020	
Variation in exchange rate	1106	
Taxes and duties	(-)387	
Interest	781	
Others	36	
		2556
Total		2651

The package-wise break-up of sanctioned cost, cost as per RCE of May 1992, ordered value, the anticipated cost and the expenditure upto March 1999 is indicated in **Annexure-II.**

Despite reduction in taxes and duties allowed by the Government, the cost overrun was more than Rs.2650 crore mainly on account of escalation and variation in exchange rate due to delay in completion of the project. Further, change in the funding pattern also led to higher incidence of interest.

7. FINANCING OF THE PROJECT

SAIL indicated to the CCEA in April 1992 that the revised estimated cost of Rs. 3954 crore would be financed from its internal resources, foreign loans and Steel Development Fund (SDF)/indigenous market borrowings with the debt to internal resources at the ratio of 1:1.While deliberating in the PIB meeting held on 25 April 1992, the Joint Secretary, Ministry of Finance (Plan Finance) indicated that SAIL would arrange internal resources to the extent of Rs.1976 crore for the project and the balance amount would be arranged from SDF/domestic borrowings (Rs.1258 crore) and foreign loans (Rs.720 crore). Actual deployment of funds upto March 1998 was as under:

(Rs. in crore)

Source of fund	Amount	Rate of interest (Average)
Steel Development Fund (SDF)	1595.64	07.25 per cent
Public Deposit Scheme	485.29	15.00 per cent
Bonds	757.52	17.00 per cent
External Commercial Borrowings	667.54	08.75 per cent
PSUs	191.05	14.00 per cent
	3697.04	
Internal resources	302.98	
	4000.02	

The following observations are made:

- as against the commitment of *Rs. 1976 crore, SAIL contributed only Rs. 302.98 crore from* its internal sources.

- the actual amount of foreign loan from *KFW, Germany and TPE, Russia* by way of mixed credit/deferred credit received upto March 1998 was *Rs.667.54 crore.*

- Rs.1434 crore was arranged from domestic sources having high interest rates. The debt to internal resources ratio of the project was *12.2:1 as against 1:1 originally envisaged.*

- the internal rate of return (IRR) of 19.16 per cent was calculated on the basis of the assumption that the gross selling prices of saleable steel would go up by 10 per cent. However, the corresponding manufacturing expenses were computed based on the prevailing prices of inputs, although Project Appraisal Division (PAD) had expressed that the IRR of the project was more sensitive to manufacturing cost rather than to shortfall in production. *As such, the projection of 19.16 per cent IRR was optimistic*

and not realistic. Further, while working out the IRR, interest on borrowing was not considered.

- *The original sanctioned cost estimate of Rs.2461 crore as approved by the Government included an element of interest during construction at Rs.154 crore which was subsequently revised to Rs. 259 crore in the revised cost estimate of Rs.3954 crore. However, the actual interest burden upto March 1998 was Rs.315 crore against the total estimated interest of Rs. 935 crore for completion of the project.* The higher incidence of interest was *due to long delays in construction and financing of the project from loan sources coupled with adverse variation in exchange rates.* This has obviously put the viability of the project in danger. The projections made by the Ministry/SAIL that the project would remain viable and that the IRR at 19.16 per cent would remain attractive and would not fall beyond 1 per cent even *after assuming shortfall in production and increased manufacturing cost, have not come true because of increase in capital cost and cost of inputs along with decline in sales volume.*

8. POST MODERNISATION PERFORMANCE

The projected benefit of modernisation included a steady production of 1.9 MTPA of liquid steel, reduction in energy consumption, reduction in cost of production etc. besides upgradation of technology.

8.01. Production performance

Amongst the main production units of the plant, Sintering Plant-II was completed in September 1996 and Basic Oxygen Furnace (BOF) and Continuous Casting Plant-II were completed in February 1997. The table below indicates the installed capacity, base capacity (as assessed by consultant) and production of major products there against during pre-modernisation and post-modernisation period.

(in lakh tonne)

Pre- Modernisation				**Post- Modernisation**				
Major Products	Installed/ Base capacity	Actual Production (1987-88)	Percentage of utilisation to Installed / Base capacity	Installed capacity	Actual Production (1996-97)	Percentage of utilisation	Actual Production (1997-98)	Percentage of utilisation
Hot Metal	16.00/13.5	12.12	76/90	20.00	13.90	70	14.09	70
Liquid/ Crude Steel	18.00/14.0	11.15	62/80	19.00	12.40	65	11.76	62
Concast Slab	-	--	--	16.60	0.46	03	6.21	37
Saleable Steel	12.25/12.08	11.56	94/96	16.71	11.80	71	11.81	71

Note:- Base capacity of 1.4 MT was fixed by M/s Dasturco, consultant in pre-modernisation. No base capacity in post-modernisation.

It may be seen from the above that even after modernisation of Raw Material Handling System (January 1996) and addition of Sinter Plant-II, the envisaged target production of 2 MT of hot metal was not achieved. It remained at 1.4 MT during 1996-97 and 1997-98 against 1.2 MT before modernisation. Similarly, against the target 1.9 MT, the actual production of liquid/crude steel during 1996-97 and 1997-98 was about 1.2 MT i.e. even less than the base capacity level of 1.4 MT.

Thus, even *after spending more than Rs.5000 crore, the main objective of modernisation scheme to increase the production of crude steel to the level of 1.9 MT was not achieved.*

8.02 Product Profile

The main saleable steel products of the Rourkela Steel Plant are plates, hot rolled/cold rolled coils and sheets, galvanised sheets, ERW pipes, SW pipes, Silicon Steel sheets, etc. used by the automobile, capital goods and consumer durable industries.

The sales plan, production plan, actual production and sales (including transfers) of these products during 1997-98 were as under:

(Quantity in '000 tonne)

Product	Sales Plan	Production Plan	Actual Production	Sales (incl. transfers)
Plates	431	335	240	181
HR coils	225	1000	867	182
CR sheets/ strips	245	236	224	43
GP/GC sheets	155	152	161	119
ERW pipes	50	50	42	41
SW pipes	50	50	39	33
CRGO/CRNO steel	65	63	30	34
Tin plate	71	83	29	30

It may be seen from above that:

(i) in respect of all the products, there was substantial variation between actual production and production envisaged in the sales plan. In case of HR coils, production was 385 per cent higher than the production as per the sales plan.

(ii) in respect of plates, CR sheets/strips, ERW and SW pipes, the actual production was much below the sales plan.

(iii) in respect of silicon steel (CRGO/CRNO) and ERW/SW pipes, though there was adequate demand in the market, the plant could not produce as per the sales/production plan. From the figures of sales it appears that the Company could sell whatever quantity of silicon steel, tin plate and ERW pipes it produced.

(iv) the actual supply of plates, HR coils, CR coils/strips and GP/GC sheets was much below the actual production resulting in accumulation of stock.

8.03 Techno-economic parameters

The table below indicates the techno-economic parameters achieved in pre-modernisation period (1987-88), parameters envisaged after modernisation and actual achievement there against during 1996-97 and 1997-98.

	1987-88 Actuals	Envisaged after Modernisation	1996-97 Actuals	1997-98 Actuals
Ash content in BF Coke (per cent)	23.2	22.50	22.00	20.60
Coke rate (Kg./tonne)	764.0	700.00	699.00	678.00
Fe content (HG) in iron ore (per cent)	62.1	63.50	63.10	63.80
BF productivity (T/M3/Day)	0.73	1.13	0.80	0.84
Labour productivity (T/Man/Yr.)	47.00	97.40	52.00	49.00
Gross energy consumption (G.Cal/TCS)	10.99	9.00	10.37	10.90
Hot Metal consumption P/T of crude steel (Kg.)	1019.00	1004.00	1008.00	1048.00
Average yield of slab from liquid steel (per cent)	84.50	92.50	85.11	85.70

It may be seen that despite improvement in Ash content in coke and Fe content in iron ore, the productivity of BF had not improved as envisaged and remained at 0.84 t/m3/day during 1997-98 as against 1.39 t/m3/day at Bhilai Steel Plant and 1.45 t/m3/day at Bokaro Steel Plant during the same period. There was no marked improvement in the energy consumption during 1996-97 and 1997-98. Further, labour productivity continued to be very low at 49 t/man/yr. as against 97.40 t/man/yr. envisaged after modernisation. The position of RSP in respect of BF productivity, coke rate, gross energy consumption and average yield slab from liquid steel was worst during 1997-98 among all the four

integrated steel plants of SAIL. The details of arising vis-a-vis norms in different mills, though called for, were not furnished (May 1999).

The Management stated (September 1998) that RSP modernisation would be completed in all respects by October 1999 and the full benefits of modernisation would be achieved by 2000-2001. However, with low productivity of BF, and lower level of capacity utilisation at BOF/CCP the anticipated benefits from the downstream units seems to be optimistic.

8.04 Financial performance

The financial performance of the plant since 1988-89 was as follows:

(Rs. in crore)

Year	Nét sales	Cost of sales	Profit(+)/Loss for the year	Cumulative Profit/Loss (-)
1988-89	1156.69	1057.76	98.93	161.27
1989-90	1222.58	1167.53	55.05	216.32
1990-91	1289.10	1246.40	42.70	259.02
1991-92	1592.43	1548.14	44.29	317.68
1992-93	1430.75	1416.38	14.37	273.39
1993-94	1723.92	1720.51	3.41	321.09
1994-95	1848.99	1830.02	18.97	340.06
1995-96	2004.93	2061.57	(-)56.64	283.42
1996-97	1885.30	2201.69	(-)316.39	(-)32.97
1997-98	1774.31	2148.45	(-)374.14	(-)407.11

The loss of Rs.374.14 crore during the year 1997-98 was understated by *Rs.137.72 crore as there was undercharge of depreciation and other expenses (Rs.135.85 crore) due to delay in capitalisation of some of the units under modernisation scheme and overvaluation of inventories (Rs.1.87 crore).*

The loss is likely to go up further in future years due to additional burden of depreciation and *interest to the extent of Rs.600 crore (approx.) per annum which would* remain mostly unabsorbed for want of corresponding increase in the production level.

9. LIQUIDATED DAMAGES

General provisions of contract in respect of modernisation packages included levy of liquidated damages (LD) at the rate of 5 per cent for time overrun and at the rate of 7.5 per cent for non-fulfilment of performance guarantee subject to an overall ceiling of maximum liability at the rate of 10 per cent of the contract value. Out of 29 main packages, 27 packages had been completed upto March 1998 and the extent of delay in these packages ranged from 1 to 42 months as compared to the contractual completion date. As such minimum LD recoverable for the delays worked out to *Rs.111.67 crore being 5 per cent of the ordered value of Rs. 2233.45 crore* (completed packages).

Following observations are made:

- no LD was recovered from the foreign contractors though there was delay of 12-14 months in all the global packages.

- due to delay in execution of 15 indigenous packages, LD of *Rs.23.69 crore was recovered from 20 contractors. Subsequently because of receipt of representations from the affected contractors, Rs.9.53 crore was refunded to 8 contractors on the ground that a final decision regarding recovery would be taken after completion of the project. The reason cited while refunding the LD was not tenable because it was observed that a major part of the LD so refunded related to projects already completed. Thus there was no justification for refund of LD.*

- delay in finalisation of LD recoverable in accordance with the terms and condition of the contract led to financial accommodation to the contractors. The delay in recovery ranged from 18 months to 84 months after completion of the projects in the case of Rs.9.53 crore refunded to 8 contractors.

- LD recoverable on account of delay was limited to 5 per cent of the contract price. No provision was made in the *contract for levying LD on subsequent increase in prices due to escalation etc. In the case of BOF package though the amount of escalation paid to contractor was Rs.45.16 crore, no LD (Rs.2.26 crore leviable at the rate of 5 per cent of the value of the contract) could be recovered in the absence of such provision.*

The Management stated (September 1998) that the deferment of LD did not cause any problem as contract provided for 12.5 per cent payment after completion of erection work towards Preliminary Acceptance Certificate (PAC), commissioning and Final Acceptance Certificate (FAC). Out of this payment, LD could be recovered. The total LD would be imposed/settled at the time of closing of contract for the package.

The reply of the management is not tenable as the total project had been financed mostly out of borrowed funds and delay in recovery of LD resulted in loss of interest to the Company and undue financial accommodation to the contractors. No LD has been recovered so far (May 1999). *It is interesting to note that in all the cases except for M/s TRF (for Coal Handling Plant), the refunds were made by RSP to contractors after completion of the schemes/projects, so the chances of any recovery are bleak.*

10. MANPOWER AND TRAINING

The total manpower at Works Department in December 1987 was 24,202. On an overall basis, the rationalised manpower requirement at the Works Department after modernisation was assessed to be around 19,500. Against this, the actual manpower as on 31 March 1998 was 23819. Thus, there was a reduction of only 383 personnel as against 4702 envisaged. There was increase in manpower in Blast Furnace, Hot Strip Mill and Traffic & Raw Materials Department. Due to non-achievement of reduction in manpower as envisaged, the expected reduction in manufacturing cost was not achieved.

The need for training of personnel for successful adoption of new technologies to yield maximum benefit in terms of higher productivity, improved quality and lower cost was also stressed in the DPR. It was envisaged that the personnel to be trained should be in such an age group which would enable the Plant to utilise their specialised knowledge over a reasonable period of time. A preliminary assessment indicated that about 250 personnel would have to be trained abroad for successful operation and maintenance of the new technologies. However, 205 personnel were trained abroad under modernisation at a cost of Rs.3.16 crore. Break-up of the number of personnel trained in various age-groups is as under:

Age group	No. of persons trained
26-35	49
36-45	99
46-50	25
51-55	29
Above 55	03
Total	**205**

Of these, 167 persons were posted in the mills/units for which they had undergone training, 10 had retired/resigned and 28 were posted in the units different from where they had undergone training.

11. ROLE OF CONSULTANT

The Government while conveying the approval of the modernisation scheme in October 1989 indicated that SAIL should implement the project with M/s. M.N. Dastur & Company (Dasturco) as their prime consultant. Accordingly an agreement was entered into with Dasturco on 5 September 1991 at a consolidated consultancy fee of Rs. 84.50 crore as detailed below with escalation at the rate of 8 per cent per year subject to an overall ceiling of 15 per cent of the fees payable from I April 1991.

i) For Engineering. services including designers supervision, budgetary control and monitoring services	Rs.73.60 crore
ii) For inspection of equipment and structurals (indigenous and imported)	Rs. 7.70 crore
iii) For monitoring and follow up of manufacture of indigenous equipment	Rs. 3.20 crore
Total	**Rs.84.50 crore**

The agreement was deemed to be effective from Ist April 1987 for a period of 108 months ending 31 March 1996. This was extended on 14 November 1996 for a further period of 21 months ending 31 December 1997 at a consolidated fee of Rs. 13 crore with an option for further extension beyond December 1997 at a rate of Rs. 50,000/ per man/month. In addition, RSP agreed to pay Rs. 1.20 crore for additional work and Rs. 4.80 crore for providing consulting engineering services for Additions Modifications and Replacements(AMR) schemes.

The following points were noticed:

- as on 31 March 1998, out of the 29 main packages, 27 packages were completed and the remaining 2 were under various stages of completion. This led to time overrun of about 3 years and cost overrun of Rs.2651 crore. However, no responsibility for the time overrun and *cost overrun was assigned on Dasturco even though the consulting engineers guaranteed* that they would endeavour to contain the project within the time and cost estimate (Article-9.1).

The Management stated (September 1998) that since the delay in completion of the project could not be solely attributable to the consultant, LD on this account had not been imposed as per contract provision.

The management's contention is not tenable as the responsibility for any delay as per the Government directives was to be fixed either on SAIL or Dasturco or both. But in the

absence of suitable penalty clauses binding the consultant to make good the loss/damage due to non-achievement of guaranteed technological parameters, no responsibility could be fixed.

- the performance of the plant after modernisation revealed that the technological parameters envisaged in the DPR particularly those relating to the productivity of BF were not achieved. Further, there were deficiencies in the drawings and layout plans in respect of railway signalling and communication system in hot slab movement area. Several cases of delay in approval of drawings and specifications in raw material handling system and flat wagons were also noticed. The Management stated (October 1998) that a sum of Rs.39.42 lakh was recovered from Dasturco on account of deficiencies in design and drawings in six packages. Management's contention is not tenable since the loss on account of non-achievement of Blast Furnace productivity alone was several times more than the amount recovered.

- Dasturco failed to discharge their contractual obligations in respect of inspection of equipment and structurals and monitoring and follow up of manufacture of indigenous equipment for which a total fee of Rs.10.90 crore was provided in the agreement. As a result, RSP's engineers and senior executives had to visit several manufacturers' shops and premises [Lloyds, Braithwaite Co. Ltd., Heavy Engineering Corporation Ltd., KCP Ltd., Madras, Indian Sugar General Engineering Corporation Ltd., (ISGEC) etc.] for spot follow-up, removal of design bottlenecks, inspection problems etc. and to ensure early delivery of ordered equipment. No recovery was made from Dasturco on this account.

In spite of the above shortcomings and deficiencies, the agreement was extended from time to time and the total payments made to Dasturco aggregated Rs.115.49 crore (August 1998) as against the consolidated fee of Rs.84.50 crore originally contracted for.

12. OTHER TOPICS OF INTEREST

(i) Site levelling work of the vast modernisation area undertaken by RSP during late eighties had caused depletion in the flood absorbing capacity of the low lying areas. As a result there was an unprecedented flood during August 1988 within and around RSP which severely affected operation of many plant units viz. Sinter plant, BF No. 1 & 4, Wagon tippler, Lime calcining plant etc. In spite of this, RSP did not take any long term measures to avoid accumulation of flood water inside the plant even though such a scheme at a total cost of Rs. 8.5 crore was recommended by Dasturco in June 1989. Instead, some short term measures were adopted at a cost of Rs.1.78 crore which were not adequate to prevent the flood water from entering the plant and again there was severe flooding inside the plant in 1993 leading to loss of production of the value of *Rs.25.92 crore and damage to equipment worth Rs. 0.14 crore*. The long term measures recommended by Dasturco were subsequently *taken up in 1995 with some modification at a cost of Rs. 31.75 crore.*

(ii) The contract with TPE/Mukand for BOF package envisaged installation of SAIL combined blowing system (SCB), an in-house technology developed by Research and Development Centre for Iron and Steel (RDCIS). It was expected that the SCB technology already implemented in the converters No. 4 and 5 of the old SMS would be fully stabilised by the time the new BOF shop comes into operation.

However, in view of inconsistent performance of the SCB technology in the existing SMS at RSP as well as at Bokaro Steel Plant, it was decided (July 1995) not to install the SCB in the converters of BOF.

In the meantime in accordance with the terms of the contract TPE/Mukand had already supplied (March 1996) the hardware and spares valuing Rs.1.0 crore required for the SCB technology *as per the contract. As the BOF was commissioned without SCB system, the hardware and spares supplied by Mukand became infructuous and were lying in the stores* (May 1999).

The Management stated (September 1998) that the possibility of utilising the component and spares supplied by TPE/MUKAND was being examined.

(iii) As per clause 3.6.1 of the contract with TPE/Mukand for the BOF package, customs duty for imports was required to be paid by RSP directly to the customs authorities at actuals. Accordingly, RSP paid customs duty and countervailing duty directly to the customs authorities for all materials imported by Mukand from hard currency area. As per the Central Excise rules, Mukand was entitled to avail MODVAT credit with the help of endorsed bill of entry in respect of material taken directly to their works for further processing. However, the benefit was required to be passed on to RSP as per clause 5.1.1.1 of the contract. In cases where no MODVAT credit was availed by the contractor, the bills of entry were required to be returned to RSP for availing the same. It was, however, observed that bills of entry submitted by Mukand amounted to Rs.5.02 crore only against

the total payment of duty *amounting to Rs.6.44 crore.* Mukand neither passed on the benefit of *MODVAT credit nor returned the bills of entry amounting to Rs.1.42 crore.*

The Review was issued to the Ministry in October 1998; but their reply was awaited (May 1999)

ANNEXURE-I

(Referred to in Para No. 6)

Statement of delay in completion of each package

Sl. No	Name of package	Agency	Contrac-tual completion date	Actual comple-tion date	Delay in months
I	II	III	IV	V	VI
	Global Packages				
1	Sinter Plant-II	TPE,Simplex BHEL NPCC	July '95	Sept.'96	14
2	Basic Oxygen Shop	TPE, Mukand	Dec,'95	Feb,'97	14
3	Slab Casting Shop in SMS-II[CCP-II]	MDH, MECON	Feb.'96	Feb,'97	12
4	Modification of i)Plate Mill ii) Hot Strip Mill	MDH,BTS, MECON, Siemens, India Siemens AG	June'94 April '96	Aug,'95	14 Not compl-eted
	Indigenous Packages				
1	Mobile equipment for RMHS	ELECON	May'92	Nov.'93	18
2	RMHS (Phase-I)	EPI	Nov.'92	Jan.'96	38
3	SS & Conv. of BF	MECON	Feb.'92	July'93	17
4	i)INBA Cast House-BF 4	NPCC	Jan.'90	May'90	4
	ii) Cast House BF 4	EPI	Nov.'91	Jan.'93	14
5	Dolomite Brick Plant	MECON	Jan.'93	Feb.'95	25
6	Modification of CHP	TRF	Dec.'91	Feb.'94	26
7	Oxygen Plant	BHPV	Aug.'92	Sept.'92	1
8	Power Distribution System	Siemens	Nov.'91	March92	4
9	Combined Blowing in converters 4 & 5	Siemens Radex	Feb.'92	Aug.'94	30
10	Raw Material Handling System-II	HEC	April'94	Oct.'97	42

Sl. No	Name of package	Agency	Contrac-tual completion date	Actual comple-tion date	Delay in months
11	Partial Briquette Blend Charging Plant	Beekay	July'95	Nov.'96	16
12	Conveyors to and from SP -II	Braithwaite	Dec'94	Sept.'96	21(Without linking B.F highline)
13	Slab Casting Shop in SMS-I [CCP-I]	HEC, SMS	Aug.'95	Aug.'96	12
14	Calcining Plant	EPI	March'95	Dec.'97	33
15	Reheating Furnace for i) Plate Mill ii) Hot Strip Mill	 EPI, SH, France	 Oct.'94 Aug'96	 Aug.'95 -------	 10 Not completed
16	Relocation of Dividing line -III	MECON	May'94	Aug.'95	15
17	Oxygen Plant Phase:II	BHPV	May'93	March'94	10
18	Medium Pressure Boiler	IJT, Calcutta	March'94	May'97	38
19	Power Distribution System	Siemens	June'93	June'94	12
20	Sizing Plant at ILQ, Satna	Beekay	June'93	Nov.'94	17
21	Ladle Repair Shop	Braithwaite	May'93	Feb.'94	9
22	Mobile Equipment for RMHS -II	Elecon	Oct.'93	July'94	9
23	Rly. Signalling and Voice Communication system	Crompton Greaves	Dec.'94	April'97	28
24	Augmentation of Tarkara Pump House and Make up Water Works	BSBK, New Delhi	March'94	Sept.'95	18
25	Tarkara Intake well and approach Bridge	Gammon India	Aug.'94	Sept.'95	13

ANNEXURE-II

(Referred to in para no:6.01)

Statement of Package-wise analysis of cost

[Rs in crore]

Sl. No	Name of the packages	Sanctioned cost (Oct.'89)	Revised cost (May '92)	Ordered value	Anticipated cost (Ist Qr.'97)	Expenditure till March 1999
	Global Packages					
1	Sinter Plant-II	128.31	233.88	217.07	261.94	215.55
2	Basic Oxygen Shop	335.39	621.01	592.13	752.89	649.72
3	Slab Casting Shop in SMS-II[CCP-II]	266.99	550.23	502.82	654.16	575.75
4	Modification of i) Plate Mill ii) Hot Strip Mill	290.75	549.85	466.63	657.79	563.37
	Indigenous Packages					
1	Mobile equipment for RMHS	17.46	17.72	17.46	17.72	17.39
2	RMHS (Phase-I)	133.62	145.81	130.40	163.53	165.71
3	Sinter Screening & Conveyarisation at BF	30.98	32.43	30.98	34.23	34.07
4	Cast House Slag Granulation Plant at BF-4	12.73	13.83	13.59	21.56	20.95
5	Dolomite Brick plant	35.07	44.85	28.86	42.96	41.13
6	Modification of Coal Handling Plant	67.66	72.22	65.71	70.77	67.77
7	Oxygen Plant-I	59.01	61.47	49.70	61.86	61.47
8	Power Distribution System	14.28	14.83	14.15	14.82	14.53
9	Combined Blowing in Converters No. 4 & 5 in SMS	2.66	3.00	2.99	4.66	4.94

Sl. No	Name of the packages	Sanction-ed cost (Oct.'89)	Revised cost (May '92)	Ordered value	Anticip-ated cost (Ist Qr.'97)	Expendi-ture till March 1999
10	RMHS-II	68.00	96.51	92.72	111.35	103.35
11	Partial Briquette Blend Charging Plant	45.01	62.43	53.70	57.63	54.03
12	Conveyorisation to and from SP-II	18.50	19.70	19.50	26.11	215.55
13	Slab Casting Shop in SMS-I(CCP-I)	87.65	244.16	92.16 + **DM 33.972 million**	272.33	221.34
14	Calcining Plant	36.84	48.47	46.90	55.90	56.21
15	Re-Heating Furnace of Plate Mill and Hot Strip Mill	79.26	233.49	160.25 + **FF 66.469 million**	233.48	187.88
16	Re-location of Dividing Line -III	15.56	27.64	21.20	31.76	30.77
17	Oxygen Plant-II	50.41	62.15	43.00	69.74	51.79
18	Medium Pressure Boiler	13.97	14.71	13.50	16.98	12.88
19	Power Distribution System	12.12	20.25	19.50	24.78	23.13
20	Sizing Plant at ILQ, Satna	4.44	5.56	5.50	5.99	5.65
21	Laddle Repair Shop	14.73	12.72	12.40	13.17	11.47
22	Mobile equipment of RMHS-II	5.00	5.82	5.80	5.82	5.71
23	Railway Signalling & Voice Communication System	-	3.37	3.10	9.32	25.37
24	Augmentation of Tarkara Pump House and make up water works	3.41	12.54	12.50	13.97	13.63
25	Tarkara Intake well & approach Bridge	-	7.82	7.82	8.53	7.28

Sl. No	Name of the packages	Sanction-ed cost (Oct.'89)	Revised cost (May '92)	Ordered value	Anticip-ated cost (Ist Qr.'97)	Expendi-ture till March 1999
26	Auxiliary and others (Phase-I & II)	611.19	715.53	118.29 **+ S Fr 264,258 + DM 59,000**	1396.38	831.27
	TOTAL:	2461.00	3954.00	2860.33 **+DM 34.031 + SFr 0.264 + FF 66.469 (In million)**	5112.13	4289.66

ANNEXURE - III

Working results of the Company and its various individual units for the last three years:

(Rs.in crore)

Plants/Units	Profit(+) Loss(-) after tax as per accounts	Less: Write back of Provision made in the earlier years no longer required.	Add/Less prior period adjustments and extraordinary items	Add: provision for taxation	Profit(+) Loss(-)
Consolidated Position					
1996-97	(+) 515.17	10.65	(-) 22.07	(+) 72.86	(+) 555.31
1997-98	(+) 132.99	30.00	(-) 4.79	(+) 15.60	(+) 113.80
1998-99	(-) 1573.66	19.47	(+) 21.34	(-) 44.67	(-) 1616.46
Bhilai Steel Plant					
1996-97	(-) 683.97	3.55	(-) 11.43	---	(+) 668.99
1997-98	(+) 701.38	12.82	(+) 1.22	---	(+) 689.78
1998-99	(+) 300.72	7.29	(+) 6.46	---	(+) 299.89
Durgapur Steel Plant					
1996-97	(-) 235.52	0.55	(-) 4.59	---	(-) 240.66
1997-98	(-) 508.57	0.32	(-) 7.38	---	(-) 516.27
1998-99	(-) 718.73	1.03	(+) 2.67	---	(-) 717.09
Rourkela Steel Plant					
1996-97	(-) 316.39	2.53	(+) 6.01	---	(-) 312.91
1997-98	(-) 374.14	2.01	(-) 0.70	---	(-) 376.85
1998-99	(-) 765.05	3.50	(+) 3.61	---	(-) 764.94
Bokaro Steel Plant					
1996-97	(+) 357.23	0.29	(-) 9.30	---	(+) 347.64
1997-98	(+) 367.17	2.58	(+) 2.01	---	(+) 366.60
1998-99	(-) 164.61	1.32	(+) 7.24	---	(-) 158.69

Plants/Units	Profit(+) Loss(-) after tax as per accounts	Less: Write back of Provision made in the earlier years no longer required.	Add/Less prior period adjustments and extraordinary items	Add: provision for taxation	Profit(+) Loss(-)
Alloy Steels Plant					
1996-97	(-) 67.27	0.40	(+) 0.07	---	(-) 67.60
1997-98	(-) 87.95	1.80	(+) 0.22	---	(-) 89.53
1998-99	(-) 179.24	1.63	(+) 0.49	---	(-) 180.38
Salem Steel Plant					
1996-97	(-) 37.62	0.01	(-) 4.46	---	(-) 42.09
1997-98	(-) 119.70	0.07	---	---	(-) 119.77
1998-99	(-) 179.80	0.99	(+) 0.41	---	(-) 180.38
Visvesvaraya Steel Plant					
1996-97	---	---	---	---	---
1997-98	---	---	---	---	---
1998-99	(-) 74.19	1.18	---	---	(-) 75.37
Raw Material Division					
1996-97	(+) 49.40	1.45	(+) 1.46	---	(+) 49.41
1997-98	(+) 18.85	0.49	(+) 0.11	---	(+) 18.47
1998-99	(+) 4.83	1.41	(+) 0.56	---	(+) 3.98
Other Units					
1996-97	(+) 81.37	1.87	(+) 0.17	(+) 72.86	(+) 152.53
1997-98	(+) 135.95	9.91	(-) 0.27	(+) 15.60	(+) 141.37
1998-99	(+) 202.41	1.12	(-) 0.10	(-) 44.67	(+) 156.52

CHAPTER 2 : MARKETING ORGANISATION OF SAIL

INDEX

OVERVIEW

1. Introduction

Steel Authority of India Limited (SAIL) has four integrated Steel Plants located at Bhilai (M.P), Rourkela (Orissa), Bokaro (Bihar), and Durgapur (West Bengal) and two stainless steel plants i.e. Salem Steel Plant at Salem (Tamil Nadu) and Alloy Steels Plant at Durgapur. The marketing of iron & steel products is done through the Central Marketing Organisation (CMO) having a network of 42 branches and 54 stockyards spread all over the country.

[Para 1]

2. Steel Scenario

With the introduction of economic reforms in 1991 the prices of iron and steel products were decontrolled on 16 January 1992 and the industrial licensing restriction abolished. The Government also reduced the customs duty on import of products from over 100 per cent in 1992-93 to 25-35 per cent in 1997-98. This exposed the Indian Steel Industry particularly SAIL to competition. The Company, however, filed the formal petition to the Government for levy of suitable anti-dumping duty only in September 1997 although the recommendations of the Chelliah Committee for gradual reduction in customs duties were available by 1992.

[Para No. 2]

3. Marketing Policy

On a review of the marketing policy and operations the following points were noticed:

(i) The Company formulated its new marketing policy in June 1994 i.e. after two and half years of decontrol.

(ii) Since liberalisation, considerable additional capacity for production of iron and steel material had been created in the private sector resulting in continuous decline in the Company's market share from 39 per cent in 1992-93 to 29 per cent in 1997-98 in finished steel. The Company could not regulate the production with the market demand even after making huge investment of nearly Rs.12,000 crore on plants modernisation.

(iii) Although the marketing organisation of the Company is located at Calcutta, its Director is based in New Delhi.

(iv) The Company appointed a USA based consultant in June 1994 for suggesting areas of business growth and diversification at a total fee of US$ 0.68 million.The basis of selection, terms of remuneration, reasons for payment in US$ and efforts made to engage local consultant were not made available.

(v) There was substantial variation in actual production of iron and steel material vis-a-vis the sales plan. In respect of pig iron, re-rollable and plates, the production during 1997-98 was 157 per cent, 155 per cent and 135 per cent respectively of the sales plan resulting in huge accumulation of stock.

[Para 3]

4. Pricing Policy

Since decontrol, the Company had been fixing prices for its products and made 22 price revisions upto 31 March 1998.

[Para 4]

Following points were noticed:

i) The Freight Equalisation Fund was abolished with effect from 16 January 1992 and the Company was free to charge actual railway freight from the customers. However, at the instance of the Ministry of Steel it charged ceiling freight where the actual freight was more and suffered a loss of Rs. 132.85 crore from 1992-93 to 1995-96. Further it suffered a loss of Rs.8.14 crore on railway freight towards disposal of 2.33 lakh tonne of stock. The Company could not recover any compensation from the Government on these accounts.

[Para 4(a) & (b)]

(ii) Due to non-recovery of siding and haulage charges from the customers after decontrol, the Company suffered a loss of Rs.18.88 crore upto December 1994.

[Para 4(c)]

(iii) The Company could not recover an amount of Rs.5.22 crore from a customer due to its failure to amend the escalation clause of the sale order immediately after decontrol.

[Para 4(d)]

To boost up sale the Company extended various financial benefits to the customers amounting to Rs.1796 crore during the period from 1992-93 to 1997-98. However, the domestic sale of saleable steel products decreased during 1996-97 and 1997-98 though more than 74 per cent of the sale was made by extending various financial benefits.

[Para 4.2]

The quantum of rebate granted for sale of products varied widely from branch to branch. In Mumbai the rebate on sale of special quality plates during 1995-96 was as high as 47 per cent. Similarly in Chennai, the rebate on SAILCOR coils/sheets was 45 per cent of stockyard sale price.

[Para 4.2(b)]

5. Sales Performance

The Company could not fulfil its target of sale in all the years from 1992-93 to 1997-98 (except 1994-95). Sale of saleable steel products decreased during 1996-97 and 1997-98 as compared to 1995-96.

[Para 5.2]

The Company incurred an avoidable expenditure of Rs.43.18 crore on diversion of 10.83 lakh tonne of finished stock from 29 branches to other branches during 1993-94 to 1997-98. In Bokaro, Guwahati and Chennai branches, such diversion during 1996-97 constituted 56 per cent, 31 per cent and 29 per cent respectively of the total sale.

[Para 5.4]

The Company started booking orders against Memorandum of Understanding (MOU) since 1994 with high stake customers. It suffered a loss of Rs.5.52 crore by extending additional benefits to MOU customers in 27 cases.

[Para 5.5]

The Company resorted to tender sale from time to time and suffered a loss of Rs.329.82 crore during 1992-93 to 1997-98. In absence of any system of open tendering, the reasonableness of the prices realised on tender sale could not be vouch-safed.

[Para 5.7]

The Company suffered a loss of Rs. 2.16 crore due to its failure to complete export formalities within the validity period. Further there was a loss of Rs.2.14 crore on diversion of material from one export contract to another which could have been avoided had the prescribed procedure of export been followed.

[Para 5.8(a) & (b)]

6. Quality Complaints

The Company suffered a loss of Rs.47.76 crore (Rs.42.68 crore+Rs.5.08 crore) on account of entertaining quality complaints from domestic as well as foreign buyers during 1992-93 to 1997-98. Besides, the Company itself downgraded 2.09 lakh tonne of various products lying at stockyards during 1997-98 having a financial implication of Rs.68.94 crore. The products under quality complaints were mainly CR/HR coils and sheets of Bokaro and Rourkela, semis of Bhilai and Durgapur and skelps of Durgapur Steel Plant.

[Para 6]

7. Inventory Management

The stock of saleable steel and pig iron as on 31 March 1998 represented 3.58 months' turnover as against 1.84 months' as on 31 March 1995. Finished steel products as on 31

March 1998 valuing Rs.633 crore were lying in the stockyards for a period of more than 6 months.

[Para 7]

8. Sundry Debtors

Total debts of the Company increased from Rs.913 crore in 1993 to Rs.1932 crore in 1998. Of these, Rs.85 crore were lying outstanding for more than 3 years.

[Para 8]

9. Credit Policy

The Company offered unsecured credit to the customers by obtaining cheques/post-dated cheques some of which were dishonoured on presentation. The Company could not recover an amount of Rs.44.35 crore from 45 customers (1988-89 to 1998-99) due to bouncing of cheques.

[Para 9]

10. Railway Claims

As on 31 March 1998, the Company had claims pending with the Railways amounting to Rs.31.17 crore of which claims worth Rs.22.55 crore (72 per cent) were pending for more than three years.

The Company lodged claims towards shortage in transit worth Rs.10.56 crore on the basis of independent surveyor's certificates (instead of Railway's certificates) which were not accepted by the Railways.

[Para 10]

11. Other Topics of Interest

Two imported travel lifts costing Rs.3.58 crore commissioned at Haldia stockyard in July 1994 could not be utilised for 3 years due to non-development of the operational area. The lifts were transferred to Vizag stockyard in June and August 1997.

[Para 11(a)]

The Company incurred an avoidable expenditure of Rs.12.96 crore on transportation of imported coal from Paradeep to Bokaro Steel Plant at higher cost. Further, due to non-adherence to the contractual shipment schedule an extra expenditure of Rs.1.43 crore was made for transportation of coal from Australia.

[Para 11(c & d)]

There was a mis-appropriation of material worth Rs.1.13 crore at BSO Nagpur by a transporter in 1991. The case was under investigation with CBI (May 1999).

[Para 11(f)]

1. INTRODUCTION

Steel Authority of India Limited (SAIL) was incorporated on 24 January 1973 as a holding Company and was wholly owned by the Government of India. Under the "Public Sector Iron and Steel Companies (Restructuring) and Miscellaneous Provisions Act, 1978", the erstwhile Hindustan Steel Limited (HSL) stood dissolved and its various plants/units became an integral part of SAIL with effect from 1 May 1978.

The Company has in all six plants of which four integrated steel plants are located at Bhilai (Madhya Pradesh), Rourkela (Orissa), Bokaro (Bihar) and Durgapur (West Bengal), one stainless steel plant - Salem Steel Plant (SSP) at Salem (Tamil Nadu) and one Alloy Steels Plant (ASP) at Durgapur (West Bengal), beside the Corporate Office at New Delhi, Research and Development Centre for Iron & Steel at Ranchi, Central Marketing Organisation (CMO) and Raw Materials Division (RMD) at Calcutta. The marketing of this is done through CMO. The total turnover of the Company was Rs.14624.07 crore during 1997-98. Of these Rs.12096.74 crore were from sale of pig iron and mild steel products.

1.2 Marketing Set up

Central Marketing Organisation (CMO), Calcutta acts as a unified agency for marketing all prime iron and steel material produced at four integrated steel plants. While the home sales operations are headed by Executive Director (Marketing), sales in the international market are co-ordinated by the International Trade Division, New Delhi headed by Executive Director (ITD). There is also a separate transport and shipping wing at Calcutta headed by Executive Director (Transport & Shipping) which takes care of handling and storage of import/export shipments.

All the three Executive Directors report directly to the Director (Commercial) stationed at New Delhi. There are also 6 Regional offices at New Delhi, Chandigarh, Calcutta, Mumbai, Indore and Chennai each headed by a Regional Manager. The marketing and distribution of iron and steel products is carried out through a network of 42 branches and 54 stockyards spread throughout the country. The marketing of alloy steel & stainless steel products is done by the marketing departments of the respective steel plants. The organisational chart of CMO and the details of its branches and stockyards as on 31 March 1998 is given in **ANNEXURE I & II** respectively.

The main function of CMO cover demand assessment, preparation of annual performance plan, order booking, preparation of movement plan, despatch of material and monitoring of supplies etc. There is also a Market Research Group (MRG), the scope of work of which includes monitoring of competitors' activities, analysis of union budget, collection of market signals and analysis of market prices including landed price of imports on a monthly basis. However, there is no special set up for market intelligence in the international trade.

1.3 Scope of Audit

The working of the marketing organisation covering the period from 1992-93 to 1996-97 was reviewed in audit during the year 1996-97 and early part of 1997-98. Statistical information in respect of 1997-98 has also been incorporated wherever it was furnished by the management. The audit of the undermentioned 11 branches and 16 stockyards of the Company was conducted.

(Rs. in crore)

Sl. No.	Branch Sales office	Stockyard (Syd)/Consignment Agency Yard (CA)	Turnover	
			1997-98	1998-99
1.	Calcutta	Calcutta and Dankuni	652.52	745.37
2.	Howrah	Howrah	172.79	108.43
3.	Delhi	Delhi - 2 (1 Syd and 1 CA)	715.45	866.05
4.	Faridabad	Faridabad - 2 (1 Syd and 1 CA)	887.36	1032.30
5.	Ghaziabad	Ghaziabad	410.69	598.85
6.	Mumbai	Mumbai and Goa	991.72	990.09
7.	Nagpur	Nagpur	401.72	364.50
8.	Bhilai	Bhilai	540.30	591.85
9.	Ahmedabad	Ahmedabad	428.28	313.53
10.	Pune	Pune	113.28	103.66
11.	Chennai	Chennai and Pondicherry (CA)	732.42	823.35
		Total turnover of above branches	6046.53	6537.98
		Total turnover of CMO	10810.81	12197.33
		Percentage of above branches turnover to CMO total turnover	*55.93*	*53.60*

Some of the interesting points noticed during audit of other branches/stockyards have also been included in the Review.

2. STEEL SCENARIO

Impact of Liberisation:

In 1991, with the introduction of economic reforms and adoption of liberalised economic policies, the Indian Steel Industry underwent a structural change from a protected sector to an open competitive one. The prices of iron and steel products were decontrolled on 16 January 1992 and the industrial licencing restrictions abolished to encourage setting up of new steel plants in the private sector. The changed environment exposed the Company to stiff competition both from within and outside the country.

Under the liberalised trade policy, the Government reduced the customs duty from over 100 per cent in 1992-93 to 50 per cent in 1994-95 and brought it down to 25-35 per cent in 1997-98. The Company represented to the Ministry of Commerce in May 1994 bringing out in its petition the adverse impact of export of Hot Rolled coils/sheets and Plates by foreign suppliers at dumping prices. The formal petition was filed with the designated authority of the Ministry of Commerce, Government of India in September 1997 requesting for initiation of anti-dumping proceedings against the concerned countries. The designated authority in their findings dated 18 November 1998 concluded that hot rolled coils, strips, sheets and plates originating in, or exported from Russsia, Kazakhstan and Ukraine had been exported to India below their normal value except for hot rolled coils originating in Kazakhstan resulting in dumping and causing injury to domestic industry.

Accordingly, Government of India, Ministry of Finance in customs notification dated 27 November 1998 imposed anti-dumping duty on hot rolled coils/strips/sheets/plates and boiler quality plates. However, no such duty was imposed on hot rolled coils originating in Kazakhstan.

It was observed that the Chelliah Committee report on indirect taxes recommended gradual reduction in customs duty by the financial year 1999. Although these recommendations were available by 1992, the Company approached the Government only in May 1994 when the reduction in the duty had already come into force. This aspect of likely adverse impact on the sales due to reduction in customs duty should have been taken up immediately after the recommendation of the Chelliah Committee Report and pursued vigorously.

3. MARKETING POLICY

The main products of the Company are (i) Semis viz. slabs, blooms and billets (ii) Flat products viz. hot rolled (HR) and cold rolled (CR) coils and sheets, galvanised coils and sheets, pipes, heavy plates and skelp etc. and (iii) Non-flat products viz. bars, rods, structurals, railway materials etc. The marketing of these products is effected through a network of stockyards, consignment agents, extension counters, conversion agents and directly from the steel plants.

In 1964, Joint Plant Committee (JPC) was formed to regulate the price and distribution of iron and steel. As a part of liberalisation, the Government abolished the price and distribution regulation by JPC with effect from 16 January 1992. However, the requirement of the specified priority sectors like Defence, Railways, Small Scale Industries, exporter of engineering goods and North Eastern region continue to be co-ordinated by JPC.

Prior to decontrol, sales were effected through direct booking, booking against time-bound supply scheme, free sale, instant/forward package deal and tender sales etc. After decontrol, the Company formulated its new marketing policy in June 1994 and several schemes for order booking viz. annual booking scheme, long term booking scheme, quarterly or continuous booking scheme and Memorandum of Understanding (MOU) were introduced. Some of the orders are also booked through negotiation and participation in tenders floated by big customers.

In this connection, the following observations are made:-

(i) Since liberalisation of Indian economy in 1991, considerable additional production capacity has been created in the private sector with units like Lloyd Steel and Nippon Denro in Maharashtra, Essar Gujarat in Gujarat, Jindal Strips in Madhya Pradesh, Jindal Vijayanagar Steel Limited in Karnataka and Malavika Steel in Uttar Pradesh etc. The new entrants, besides being located near the consuming centres, have an added advantage of various fiscal/taxation benefits allowed by the Central/State Governments. Consequently, the market share of the Company in respect of sale of finished steel in the domestic market declined from 39 per cent in 1992-93 to 29 per cent in 1997-98.

The Management stated (August 1998) that improvements had been brought about in the areas of product quality and product development as well as in the customers' service orientation. Moreover, special thrust had been made for development of value added items like corrosion resistant thermo-mechanically treated (TMT) bars for construction industry, billets for tractor disks and HR coils for cold reducing segments etc. to counter the threats from competitors.

However, the fact remains that there had been a continuous decline in the market share and the Company has to re-orient its market strategy to arrest this trend by focussing more on customers' requirement, linking production with the market requirement and through improvement in quality. Further the Company could not link production with the

demand situation in the market even after pumping nearly Rs.12000 crore on modernisation of its plants. This has been suitably commented upon in para 3.2.

ii) Although the Company's marketing organisation is located at Calcutta, its Director i.e. the Director (Commercial) is based in New Delhi.

iii) The Company formulated its new marketing policy after two and a half years of decontrol of prices thereby losing the initial advantage of being the market leader.

iv) The Company appointed Dr. N. Mohan Reddy, an ex-employee of Case Western Reserve University, USA as its consultant initially for a period of 14 months from June 1994 to August 1995 for determination of growth prospect for SAIL in its core and supplementary business and paid a total fee of US$ 0.25 million to Dr. Reddy and Rs.2.50 lakh to Indian Institute of Management, Ahmedabad. The consultancy agreement was extended subsequently from September 1995 to July 1996 and again from August 1996 to January 1997 to cover diversification opportunities and study of business growth for SAIL at a total fee of US$ 0.68 million and Rs.5.25 lakh. On the basis of Dr. Reddy's reports submitted in June 1995 certain organisational changes in the marketing set up were made in July 1995.

The examination of papers produced to Audit showed that the selection of Dr.Reddy was made by the then Chairman, SAIL during his visit to USA in May 1994. The basis of selection, terms of remuneration, reasons for payment in US$ and efforts made to engage local consultant were not available in the files. Moreover from the records, it was noticed that the concurrence of finance was not obtained before finalising the terms and conditions which inter-alia involved a substantial payment in foreign exchange. The terms of reference contained in the agreement also included growth and diversification though the records did not show any experience of the consultant in the steel sector and of handling similar jobs earlier. It was also noticed that there was no proposal either from the CMO or from the Board emphasising the need for hiring any consultant in particular identified areas.

However, even after implementation of the recommendations of the consultant, no improvement in the marketing system vis-a-vis growth of business was noticed. On the contrary there has been gradual decline in the market share of the Company. These aspects have been discussed in the review at appropriate places.

3.2 Annual Performance Plan (APP)

Before commencement of each year, the Company prepares an Annual Performance Plan (APP) which inter-alia contains details of plant-wise and category-wise production and sales plan for each of the four integrated steel plants. Category-wise total demand of the country, company's sales plan, actual production and supplies made during the years 1995-96 to 1997-98 is given in **Annexure -III**.

It may be seen therefrom that:

i) In all the years, there was substantial variation in actual production with reference to the sales plan. In respect of pig iron, re-rollables and plates, the actual production during 1997-98 was 157 per cent, 155 per cent and 135 per cent respectively of the sales plan resulting in huge accumulation of stock of these items. On the other hand, the production of structurals, HR sheets, electrical steel sheets, tin plates and pipes during the years 1996-97 and 1997-98 was lower than the planned sale.

ii) It is interesting to note that there was a negative variation with reference to the sales plan in respect of value added products like HR sheets, electrical steel sheets, tin plates and pipes whereas there was a positive variation in respect of low profit earning products like pig iron, re-rollables and plates.

iii) Although the all India demand for HR coils/skelps and CR coils/sheets increased considerably during 1996-97 and 1997-98, the production and supply of these materials by the Company decreased gradually from 1995-96.

In respect of electrical steel sheets, pipes and tin plates, the production was much below the sales plan. From the figures of actual supplies it appears that the Company could sell whatever quantity it produced.

(iv) The Company could not supply 18.45 lakh tonne of material during the year 1997-98 against the firm orders for 76.60 lakh tonne **(Annexure-IV)**. It is seen that even though the Company had orders and adequate inventory of some of the products such as plates, HR coils/skelps, CR coils/sheets etc., the actual supplies were less which shows that either the Company was not particular in maintaining the time schedule or the material was not of the required quality/specification. The exact reasons though called for were not furnished.

Cases where the Company had to pay liquidated damages due to its failure to maintain the delivery schedule have been mentioned in Para 5.2.

v) During the year 1997-98, the Company produced 3.17 lakh tonne of material which were not covered by any order (NCO materials). Of these, a major portion partained to plates of Bhilai Steel Plant and HR coils of Bokaro Steel Plant.

vi) In respect of silicon steel, though there was adequate demand in the market and there was no competition, the Company could not produce Cold Rolled Grain Oriented (CRGO) steel despite having a facility at Rourkela Steel Plant with a capacity of 37500 tonne per annum.

The above analysis shows that production even after liberalisation of economy in 1992 continued to be tonnage oriented and not regulated as per the market requirement. This led to substantial accumulation of inventory of finished/semi-finished products as brought out in Para 7.

4. PRICING POLICY

4.1 Prior to decontrol, iron and steel materials sold by the Company were broadly grouped into two categories viz (i) products for which prices were fixed by JPC and (ii) products for which prices were fixed by the Company. In respect of items falling under category (i) above, the prices were uniform throughout the country by operation of a 'Freight Equalisation Fund' administered by JPC through which excess freight was subsidised.

Consequent upon decontrol with effect from 16 January 1992, the prices of iron and steel materials were being fixed by the Company for its own products taking into account cost of production, market price, competitors' prices including commercial dispensations given by them, landed price of imported materials etc. Prices so fixed were reviewed periodically and revisions made wherever necessary based on the increase in the cost of inputs as well as prevailing market conditions.

A statement indicating the price of major finished products prior to decontrol, revised price as on 31 March 1998 and percentage of increase thereof is given in **Annexure-V**. It would be seen therefrom that during the last 6 years after decontrol, the Company increased the price of major products by 19 to 113 per cent by making 22 price revisions.

A review of cases relating to fixation of price revealed the following:

a) Government of India, Ministry of Steel vide their Gazette Notification dated 16 January 1992 abolished the system of equalised freight for iron and steel products. Thus the Company was free to charge to its customers actual railway freight from 17 January 1992. However, Ministry of Steel vide their letter dated 17 January 1992 clarified that "the main producers may now fix the ex-stockyard prices of various categories of iron and steel on the basis of actual freight or the freight element as existed at present whichever is less".

Accordingly, the Company had been charging the actual freight subject to the ceiling of the equalised freight from the customers who were located beyond the freight ceiling zone. This resulted in a perpetual loss to the Company due to non-recovery of the actual freight from the customers which stood at Rs.132.85 crore (excluding Bokaro Steel Plant for 1992-93 and 1995-96) during the period from 1992-93 to 1995-96. The figure for loss on this account for the year 1996-97 and 1997-98 though called for (May 1999) had not been furnished by the Management. However, it is not clear from the records made available to audit whether the Company had at any time taken up the matter with the Government for compensating the loss suffered on this account since 1992-93. The Company, however, approached the Government in November 1997 to allow it to charge actual freight from the customers with effect from 1 January 1998. The decision of the Government was awaited (May 1999).

b) The Company was holding a stock of 2.33 lakh tonne of steel materials at various stockyards as on 16 January 1992 which was sold subsequently. As a result of abolition of freight equalisation fund, the Company could recover an amount of Rs.

13.98 crore only as against Rs. 22.12 crore paid towards Railway freight, leaving a balance of Rs. 8.14 crore unrealised.

The Management stated (August 1998) that the request for reimbursement of Rs.8.14 crore had not been acceded to by the JPC.

(c) Prior to decontrol, siding and haulage charges incurred by the steel plants were not recovered from the customers but reimbursed by the JPC. With the abolition of freight equalisation fund, these charges were required to be recovered from the customers. However, the Company treated the siding and haulage charges as an element of freight and could recover it only from the customers located within the freight ceiling zone. The above system was revised subsequently with effect from 1 January 1995 and siding and haulage charges were included in the ex-works price. Thus due to non-recovery of siding and haulage charges from the customers located outside the freight ceiling zone, the Company suffered a loss of Rs.18.88 crore during the period from 17 January 1992 to 31 December 1994.

The Management stated (August 1998) that immediately after decontrol, it was not considered expedient to increase the prices due to anticipated adverse reaction from the customers.

However, the fact is that the mistake of treating siding and haulage charges as an element of freight was rectified in January 1995 after the excise authorities held that such charges recovered from the customers should be included in the assessable value for the purpose of excise duty.

(d) In August 1991, the Company received an order for supply of 29,000 tonne of pipes from Indian Oil Corporation Limited (IOC). Normally prices ruling on the date of despatch were charged but the prices quoted to IOC were based on the prevailing price of HR coil with a specific escalation formula that any increase in JPC price of HR coil would affect the prices of pipes. In May 1992, the Company increased the prices of HR coils and accordingly the prices of pipes were also increased. However, IOC did not accept the price increase and continued to pay at the old price. The net differential amount recoverable from IOC worked out to Rs. 14.30 crore.

The Management stated (August 1998) that the price revision of HR coils was not acceptable to the IOC on the ground that it had not been announced by JPC. However in accordance with the commercial settlement offered by SAIL, an amount of Rs.9.08 crore was paid by IOC in September 1997. SAIL had neither gone into arbitration nor referred the matter to Legal Department keeping in view that IOC was a potential major buyer.

The loss of Rs. 5.22 crore (Rs.14.30 crore-Rs.9.08 crore) suffered by the Company on this account could have been avoided had it amended the escalation clause replacing the word "JPC" by "SAIL" immediately after de-control.

4.2 Marketing Tools

As a part of its marketing strategy the Company has been extending various commercial and financial benefits to the customers depending on the geographical location, market segment, competition, quantity etc. These benefits (adopted by the Company as marketing tools) include allowance of interest free credit (IFC), rebate, waival of extras/stockyard margin etc.

(a) A table indicating the total quantity of saleable steel (mild) sold in the domestic market, quantity sold by extending IFC/rebates/discounts etc., their percentage to total sale and loss suffered by the Company during the period from 1992-93 to 1997-98 is given below:

(Qty. in lakh tonnes)

(Amount Rs. in crore)

Year	Total domestic sale of saleable steel (Mild)	Quantity sold under IFC	Amount of loss on account of IFC	Quantity sold under rebates/ discount etc.	Amount of loss on account of rabates/dis-count etc.	Percentage of sale under IFC/rebate etc. to total sale
1992-93	64.09	1.11	4.47	1.86	10.18	4.6
1993-94	67.57	3.98	14.81	7.75	69.71	17.4
1994-95	72.69	NA	21.37	NA	92.22	NA
1995-96	74.25	2.86	11.87	21.60	16.148	32.9
1996-97	68.20	3.84	17.68	47.16	620.42	74.8
1997-98	66.92	9.61	36.74	41.97	734.89	77.1
		Total	**106.94**		**1688.90**	

Note:- Figures for 1994-95 not furnished by management.

It is evident that during the year 1996-97 and 1997-98 more than 74 per cent of the total sale was made by extending financial benefits by way of rebates/discounts etc. resulting in short realisation of revenue to the extent of Rs.1409.73 crore.

The Management stated (August 1998) that extension of IFC or granting of rebates/discounts etc. should be viewed as a part of overall pricing mechanism to achieve the desired sales level in the present market scenario.

However, the fact remains that even after using various marketing tools liberally during the years 1996-97 and 1997-98, the quantum of sale of saleable steel in the domestic market did not improve. Rather it came down from 74.25 lakh tonne in 1995-96 to 66.92 lakh tonne in 1997-98. The total incentive paid during these two years amounted to Rs.1409.73 crore.

b) A test check of the records (6 branches) for 3 months (October-December) relating to grant of rebates/ discounts during 1994-95 to 1996-97 revealed as under :

[Amount of rebate per M.T.(Rs.)]

Name of the Branches		Delhi	Ghaziabad	Calcutta	Nagpur	Mumbai	Chennai
CR Coil	**Std.Price range**						
1994-95	13400-17200	207	116	2145	764	1900	--
1995-96	15450-18800	4	526	856	--	1900	--
1996-97	15500-19100	1510	1662	--	1092	3000	1500
SAILCOR (Coils)							
1995-96	31078-33512	-	-	-	-	-	14434(45 per cent)
1996-97	31078-33512	-	-	-	-	-	11177
HR Coil							
1994-95	11800-12500	71	21	2610	8	1300	4315
1995-96	13100-14200	283	1085	3335	1415	1400	3750
1996-97	14000-15300	1598	1739	2250	2438	2900	3100
CR Sheets							
1994-95	13400-17200	207	116	3485	764	1900	--
1995-96	15950-19300	4	526	--	--	1900	--
1996-97	16100-19700	1510	1662	--	1092	2500	1400
SAILCOR (Sheets)							
1995-96	31078-33512	--	--	--	--	--	14433(45 per cent)
1996-97	31078-33512	--	--	--	--	--	11146
Plates							
1994-95	12500-13600	325	273	740	1108	1400	2780
1995-96	13600-15900	152	1702	3120	1350	2250	2800
1996-97	14200-16600	576	3490	7545	3009	5300	--
Spl.Qly.Plates							
1994-95	31866	--	--	--	--	12326	--
1995-96	31705	--	--	--	--	14789	--
1996-97	31457	--	--	--	--		9600

In this connection, following observations are made:

(i) The quantum of rebate granted during the same period and on the same product varied widely from branch to branch.

(ii) Rebates granted by Chennai and Mumbai branches were very high in all the years in comparison to other branches of SAIL.

(iii) In respect of SAILCOR coils/sheets, the quantum of rebate granted by Chennai branch during the years 1995-96 and 1996-97 was about 45 per cent and 35 per cent respectively of the corresponding stockyard sale price. Similarly the rebate granted by Mumbai branch on plates (special quality) during 1994-95 and 1995-96 represented 39 per cent and 47 per cent respectively of the stockyard sale price.

The Management stated (August 1998) that higher rate of rebate was allowed as the materials had been received in the stockyard without any requisition as NCO stock.

c) The following interesting cases were noticed:-

(i) The marketing policy of the Company (Clause.4.3 and 7.0 of Chapter V) provided that for sale of export surplus materials, benefit of one marketing tool only would be allowed to the customer. In case rebate is allowed, it should be limited to 5 per cent only. During February/March 1995 Branch Sales Office (BSO) Chennai received 7500 tonne of export surplus TMT bars from Branch Transport & Shipping Office (BTSO), Haldia. However, BSO Chennai sold 7491 tonne of export surplus in March 1995 to M/s. Jai Bhabani Steel Enterprise (Pvt) Limited at a rebate of 10 per cent. In addition, interest free credit of 60 days was also allowed. The deviation from marketing policy had resulted in loss of revenue of Rs.90.19 lakh (Rs.52.44 lakh towards excess rebate and Rs.37.75 lakh towards interest).

The Management stated (August 1998) that the stock sold were lying at Branch Transport & Shipping Office (BTSO), Haldia for more than 8 months and was prone to deterioration in a highly corrosive atmosphere. Considering the physical condition of the materials and the bulk quantity, the sale of materials was decided after negotiation with the party who came forward to lift the entire stock.

Management's contention is not tenable because had the materials been transferred immediately by BTSO, Haldia to any other Branch Sales office for sale, after export shipment, payment of extra dispensation of Rs.90.19 lakh could have been avoided.

(ii) BSO Ahmedabad sold 892 MT of Cold Rolled (CR) coils/sheets to M/s. Asian Tubes in May 1994 at a rebate of 15 per cent instead of the normal rate of 5 per cent resulting in a loss of Rs.15.33 lakh.

The Management stated (August 1998) that additional concession was given to avoid further deterioration in physical condition of material.

The justification given by the management is not tenable as out of total 2508 MT of old CR coils sold on rebate during May 1994, a major portion of 1616 MT was sold only by granting normal rebate of 5 per cent.

5. SALES PERFORMANCE

5.1 The table below indicates the turnover of the Company during the last six years ended 31 March 1998.

Qty./lakh tonne
Value/Rs. in crore

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
1.	**Pig Iron**					
Qty	1.38	2.98	5-99	3-95	5.09	6.90
Value	71.00	174.48	370.22	263.47	354.56	389.64
2.	**Mild Steel**					
	i)Steel Ingot					
Qty.	0.72	0.61	0.99	1.74	3.62	2.18
Value	44.94	37.61	76.49	136.50	298.54	180.51
	ii)Saleable Steel					
Qty.	66.83	73.99	78.51	78.17	72.83	73.66
Value	8747.74	10054.56	11592.77	12366.95	11279.18	11526.59
3.	**Alloy Steel**					
Qty.	1.08	1.14	1.53	1.26	2.21	2.49
Value	549.83	558.27	805.62	733.12	928.63	892.22
4.	**Others**					
(Non-ferrous Products)						
Value	761.36	845.97	1021.44	1210.17	1253.10	1635.11
	Total Turnover					
Value	**10175**	**11671**	**13867**	**14710**	**14114**	**14624**

It is evident that the sale (quantity) of saleable steel products had decreased during 1996-97 to 1997-98 as compared to 1995-96 even after extending various marketing benefits to the extent of Rs.1409.73 crore during the same period. However, the sale of other non-ferrous products showed a steady growth.

The Management stated (August 1998) that there had been a drastic change in the iron and steel market after decontrol and lowering of customs duty. The old producers suffered the dis-incentive due to fiscal/taxation benefits enjoyed by new entrants.

The fact remains that SAIL did not capitalise its market leadership immediately after liberalisation by increasing customers' contacts, working out product-mix suiting customers' needs, developing new products, cutting down costs, putting stress on quality and regulating the production as per market requirement though the Company invested nearly Rs.12000 crore in modernisation of various steel plants.

5.2 Domestic Sales

The target of sale fixed by the Company for different products and the quantity actually sold during the years 1992-93 to 1997-98 in the domestic market are indicated below :

(Quantity in lakh tonne)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
i) Pig Iron						
Target	3.10	3.69	3.17	4.75	6.44	4.82
Actual	1.38	2.98	5.99	3.95	5.09	3.49
Percentage of fulfilment	45	81	189	83	79	72
ii) Saleable Steel						
Target	68.50	68.32	72.40	74.81	81.30	75.29
Actual	64.09	67.57	72.69	74.25	68.20	66.92
Percentage of fulfilment	94	99	100	99	84	89
iii) Alloy Steel						
Target	1.36	1.50	1.85	2.97	2.67	4.41
Actual	1.02	1.07	1.30	1.12	1.96	2.25
Percentage of fulfilment	75	71	70	38	73	51

It would be seen from above that the Company could not fulfil its target of sale in all the years except 1994-95.

The Management stated (August 1998) that reduction in Government spending, lack of major investment in private sector, tight money market, competition from secondary producers and imports were the main reasons for non-achievement of the target.

The reply of the Management is not tenable as the Company did not make production plan as per the market requirement after decontrol or maintain quality of products and time schedule for supplies. The market share of the new entrants like M/s ESSAR, Llyods and others had increased to 5 per cent, 2 per cent and 50.5 per cent in 1997-98 as against 3 per cent, 1.5 per cent and 47.5 per cent in 1995-96 respectively. These aspects have been commented upon at appropriate places in the Review.

The following further observations are made:-

(i) Although there was demand in the market the Company could not supply structurals, HR sheets, electrical steel sheets, tin plates and pipes during the year 1996-97 and 1997-98 due to non-fulfilment of production target (refer **Annexure-III**).

(ii) The Company could not supply 18.45 lakh tonne of material during 1997-98 against firm orders for 76.60 lakh tonne. This was at a time when there was a fierce competition and there was a glut in the steel market.

(iii) The Company failed to supply materials to five Government parties within the scheduled delivery period for which an amount of Rs.5.84 crore was deducted by the customers as liquidated damages during the period from 1993-94 to 1996-97. The details of products and reasons for delay in supply though called for were not furnished by the Management.

(iv) In order to minimise the import of cold rolled grain oriented (CRGO)and cold rolled non-oriented (CRNO) steel, the Company installed CRGO and CRNO Units at Rourkela Steel Plant at a total cost of Rs.178.18 crore. However, the CRGO mill remained almost idle from the date of its commissioning (April 1989) due to various defects and the total production from the mill was only 1153 tonne during the last 5 years from 1993-94 to 1997-98 as against the capacity of 37500 tonne per year. Due to the Company's failure to produce CRGO steel, the country had to import CRGO/CRNO steel to the extent of 4.55 lakh tonne during the above period.

5.3 Selling and Distribution Expenses

Prior to decontrol, only the ex-plant prices were being fixed by the JPC and the Company was free to fix the distribution/stockyard charges to cover the selling and distribution expenses for sale of materials through stockyards.

A test check of the branch-wise selling and distribution expenses for the year 1997-98 revealed that in some branches average expenditure was more than the distribution charges recovered. As on 31 March 1998, the rate of stockyard charges was Rs.450 for pig iron and Rs.500-700 for other steel products. Details of such branches are given below:

Name of the Branch	Sales (Qty. in lakh T)	Total Expenses (Rs./lakh)	Average Expenses (per T)
DIMAPUR	0.038	28.21	742
CALCUTTA	1.610	1601.80	995
HOWRAH	0.299	357.52	1196
GUWAHATI	0.429	323.55	754
ROURKELA	0.212	171.32	808
INDORE	0.439	400.64	913

The Company did not evolve any regular system to review the performance of the various branches and identify the uneconomic branches, keeping in view the sales, other branches in the region, market share and distance from the plant. The Company has also not formulated any guidelines for opening or closing of new/existing branches with the result that several uneconomic branches continued to operate.

The Management stated (April 1998) that during the period under review 3 stockyards at Dankuni, Khodiyar and Nagulapally were opened whereas Branch Sales Office(BSO)/ stockyard at Dharmanagar was closed.

It was, however, observed that the Board of Directors of the Company identified (January 1998) the stockyards at Baroda, Dimapur, Gwalior, Kota, Parwanoo and Vijayawada as unviable and recommended for conversion of these stockyards into consignment agency yards. No unviable stockyard (except Parwanoo) has been converted into consignment agency yard so far (May 1999).

5.4 Diversion of Stock

Bulk of the material is sold through the stockyards. For this purpose, steel materials are sent from the plants to the respective stockyards considering the requirement of the customers in the respective region. However, in a number of cases, materials were diverted from one stockyard to another at a cost ranging from Rs.265 to Rs.601 per tonne.

The table below indicates the quantity diverted from 29 branches (out of 42 branches) to other branches and expenditure incurred on such diversions during the years 1993-94 to 1997-98.

Year	Qty. diverted (lakh tonne)	Stock transfer expenses (Rs. in lakh)	Cost per tonne (Rs.)
1993-94	1.06	637.16	601
1994-95	2.00	932.06	466
1995-96	1.67	692.36	415
1996-97	2.77	1174.40	424
1997-98	3.33	882.22	265
	10.83	**4318.20**	

An analysis of the Branch-wise diversion of stock during the years from 1995-96 to 1997-98 revealed that there was significant diversion of stock mainly in the following branches:

(Qty.in '000 tonne)

	1995-96		1996-97		1997-98	
	Total Sales	Total Qty. Diverted	Total Sales	Total Qty. Diverted	Total Sales	Total Qty. Diverted
Bokaro	197	38 (19)	146	82 (56)	150	36 (24)
Guwahati	40	5 (12)	39	12 (31)	43	4 (9)
Delhi	192	6 (3)	140	13 (9)	150	12 (8)
Ghaziabad	315	10 (3)	253	13 (5)	172	18 (10)
Kanpur	152	5 (3)	158	29 (18)	104	13 (12)
Nagpur	248	6 (2)	236	15 (6)	185	30 (16)
Chennai	245	7 (3)	157	45 (29)	229	37 (16)

Note:- Bracket indicates per cent with reference to Sales.

In one illustrative case, Bokaro Steel Plant despatched 1405 MT of copper bearing plates to BSO, Chennai without any firm order. As no buyer could be found at Chennai, 1061 tonne of materials were diverted to Jamalpur, Bihar for sale to the Railways incurring an avoidable expenditure of Rs.22.98 lakh on railway freight.

The Management stated (August 1998) that in order to meet the stringent customers' requirement matching size-wise, category-wise demand with the compulsion of bulk rail movement, inevitably some materials are despatched to destination other than desired destination. It becomes the responsibility of SAIL to organise further movement of materials to the required destination.

The reply of the Management clearly indicated that there was lack of planning, co-ordination and monitoring of the activities of the various branch sales offices which led to diversion of stocks from time to time.

5.5 Sale through Memorandum of Understanding (MOU)

The Company has been operating various schemes for booking orders; viz (i) direct booking scheme (ii) time bound supply scheme (iii) annual booking scheme (iv) long term booking scheme and (v) quarterly booking/continuous booking scheme etc. Since 1994 the Company also started booking orders against Memorandum of Understanding (MOU) with high stake customers.

Some interesting cases relating to MOU contracts which resulted in loss of revenue to the extent of Rs.5.52 crore in 27 cases are given below:-

(a) As per MOU of 1994, the customers were entitled to get the benefit of firm price only when they lift the agreed quantity within the stipulated period. In 4 branches, it was noticed that the benefit of firm price was allowed to the customers even though they failed to lift the minimum 80 per cent of the committed quantity resulting in short realisation of Rs.2.76 crore in 13 cases due to absence of explicit provision in the MOU binding the customers to lift the committed quantity.

The Management stated (August 1998) that applicability of firm price clause was not linked to quantity lifted by the customer under MOU as per the extant policy.

Management's reply is not tenable as a suitable provision had not been made in the MOU.

(b) BSO Hyderabad entered into a MOU with M/s. Binjrajka Steel Tubes on 31 May 1994 keeping the price of April 1994 firm upto 31 December 94. There was, however, upward revision of price with effect from 3 June 1994 for which proposal was initiated on 31 May 1994 and approval was obtained on 2 June 1994. Thus, by entering into MOU on 31 May 1994 i.e. 3 days before the date of price revision/issue of order, the Company could not get the benefit of enhanced price of June 1994 and suffered a loss of Rs.74.75 lakh (approx.) for supply of 22061 MT of materials between July and December 1994. Similarly BSO, Bangalore suffered a loss of Rs.31.80 lakh by entering into MOU between 30 May and 1 June 1994 on supply of 11263 MT of materials during June to December 1994.

The Management stated (August 1998) that they had no prior information about the possibility of price revision from 3 June 1994.

The reply is not tenable as the Regional Managers are normally consulted before a decision is taken regarding price revision. Moreover the top management could keep the regional managers well informed before taking such decision so that losses as pointed out by audit can be avoided.

(c) BSO Madras had allowed the following additional benefits to M/s. Tube Investment of India Limited during 1994 resulting in a loss of revenue to the extent of Rs.78.43 lakh as under:

(Rs. in lakh)

Allowance of 90 days IFC (interest free credit) instead of 60 days	4.10
Allowance of cash discount At the rate of 3.75 per cent instead of at the rate of 2.50 per cent	20.85
Allowance of TOD (turnover discount) at the rate of 1 per cent instead of 0.75 per cent	24.79
Waival of extras	28.69
	78.43

The Management stated (August 1998) that MOU with customer provided for special concessions with the approval of competent authority. The Company, thus, violated its own marketing policy by granting special concessions to an MOU customer.

(d) The Branch Sales Office (BSO) Ghaziabad, Faridabad, Chennai and Chandigarh entered into MOUs with various customers between the period from March 1994 and May 1994, but the effective date of the MOU for the purpose of turnover discount (TOD) was taken as 1 January 1994 i.e. prior to the date of signing of the MOU. This resulted in loss of Rs. 68.31 lakh on granting of irregular TOD in 10 cases. Further, BSO, Ghaziabad allowed TOD of Rs.50.84 lakh to M/s. Bhusan Steel & Strips Limited by taking into account 12333 MT of materials supplied after 31 December 1994 (i.e. beyond MOU period) resulting in irregular payment of TOD of Rs.22.64 lakh.

The Management stated (August 1998) that payment of TOD was made on consideration of intense competition and there was also a threat of losing the customer to competitors.

5.6 Sales through Consignment Agent

In order to boost up sales, the Company decided in 1984 to open new outlets through consignment agents in places where unserviced demand was above 1000 tonne per month or where there was positive need for de-congestion of the existing stockyards. As on 31 March 1998, the Company had 14 consignment agents for handling and delivery of the materials to the customers.

The table below indicates the total quantity of materials handled and the warehousing charges (including handling charges) paid to 12 consignment agents (except agents at Srinagar and Silchar) during the years 1993-94 to 1997-98.

Year	Qty. handled (in lakh tonne)	Warehousing charges (Rs. in lakh)
1993-94	6.28	752.13
1994-95	7.37	900.06
1995-96	7.72	899.36
1996-97	7.84	889.46
1997-98	4.97	723.30
	34.18	4164.31

The Management expressed (August 1998) their inability to furnish information for the period 1993-94 to 1995-96 in respect of 2 consignment agents at Srinagar and Silchar as the information was stated to be not available in the system.

Some of the interesting points noticed are as under:

(i) BSO, New Delhi entered into a consignment agency agreement in August 1991 with M/s. Capital Warehousing Corporation for a period of two and a half years for augmenting storage facilities and to facilitate early completion of modernisation work of Tughlakabad stockyard. The Company, however, continued to extend the agreement from time to time even though the modernisation work of Tughlakabad stockyard was completed in June 1993. Moreover, there was no improvement in sales from the BSO after appointment of the consignment agent. Rather, sales came down from 1.86 lakh tonne in 1990-91 to 1.50 lakh tonne in 1997-98. Thus, the continuance of the consignment agency agreement even after modernisation of the stockyard was not justified which led to an extra expenditure of Rs.2.89 crore during the years 1994-95 to 1997-98.

The Management stated (August 1998) that there was storage of additional materials and the stock holding was almost double the carrying capacity of the yard.

(ii) Similarly, the consignment agency agreement with M/s. Star Wire India Limited was extended by BSO, Faridabad from time to time till June 1998 even after completion of modernisation of Ghaziabad and Delhi stockyard in 1993-94. This had resulted in an avoidable expenditure of Rs.2.80 crore upto 30 June 1998.

The Management stated (August 1998) that need for continuing the consignment agency was due to lack of covered storage facilities and also to protect high valued materials.

5.7 Tender Sale

In order to dispose of the old and non-moving stock and thereby reduce the inventory of the stockyards, tender sale is resorted to by the Company from time to time. The quantity to be tendered at a time is decided by the respective Branch Managers for which tender notices are displayed on the Notice Board of the branches/stockyards and copies sent to local traders/consumers' Association and Small Scale Industries Corporations. The system observed by the branches is not flawless in as much as, even though the amount involved is substantial, there is no system of open tendering at least by advertising in local papers to ensure transparency and fair competition.

The table below indicates the quantity of mild steel sold through tender, percentage of tender sale to total stockyard sale and loss on sale through tender during the years 1992-93 to 1997-98.

(Qty. in lakh tonne)

Year	Total Qty. sold through stockyard (mild steel)	Qty. sold through tender	Percentage of tender sales to stockyard sales	Loss on disposal through tender (Rs. in crore)
1992-93	44.32	2.62	6 per cent	41.36
1993-94	46.39	0.36	1 per cent	2.51
1994-95	49.10	N.A.	N.A.	23.74
1995-96	47.44	2.45	5 per cent	49.93
1996-97	41.11	2.72	7 per cent	70.64
1997-98	34.90	3.65	10 per cent	141.64
				329.82

It would be seen that there is gradual increase in loss due to tender sale since 1994-95. Total loss suffered by the Company on this account during the years from 1992-93 to 1997-98 amounted to Rs.329.82 crore.

A test check of records relating to tender sale for 3 months (January to March) in 3 Metropolitan Branch offices viz. Calcutta, Mumbai and Chennai revealed the following;

[Qty. tonne]

	Calcutta			Mumbai			Chennai		
	94-95	95-96	96-97	94-95	95-96	96-97	94-95	95-96	96-97
Total Quantity sold on tender	6676	10095	4954	6636	7245	8382	5044	1893	2204
Realisation:More than 95 per cent of base price	1667	660	315	286	95	16	308	--	--
More than 85 per cent but less than 95 per cent.	3171	5825	878	4974	3520	568	1662	330	
Less than 85 per cent.	1838	3610	3761	1376	3630	7798	3074	1563	2204
Percentage in respect realisation less than 85 per cent	28	36	76	21	50	93	61	83	100

It may be seen that during 1996-97, most of the material was sold at a price less than 85 per cent of the base price. In respect of Chennai, the entire quantity was sold at price below 85 per cent of the base price. In absence of any system of open tendering, the reasonableness of the prices realised could not be vouch-safed. Lower realisation was due to (a) thrust on disposal of over 6 months old stock including rejected and semi-processed materials and (b) to achieve higher sales during last quarter of the year, the competent authority had relaxed the quantum of discounts/rebates.

The Management stated (August 1998) that considering the frequency of tender notices and geographical spread of branches, the cost of advertisement in local newspapers could be considerably high. Besides, it might result in bad publicity for SAIL.

The reply is not tenable as tendering in newspapers is a well established practice and high cost could not be used as criteria particularly when the quantity is large. Bad publicity could not be used as a pretext for not going for open tendering.

5.8 Export Sales

The export of iron and steel materials by the Company started as early as in the sixties. The programme of export was being formulated by the Company every year on the basis of Government export policy to dispose of such categories of material (mainly plates and billets) which were found surplus to domestic demand. In March 1991, the Company decided to export other products such as HR/CR coils, wire rods, structurals, galvanized coils/sheets in addition to major thrust on the export of plates.

With the introduction of a liberalised trade policy, the Company felt the need for opening its products in the international market on a sustained and long term basis for earning the much needed hard currency to enable it to finance its import of raw materials, capital goods and technology for the on-going modernisation of the steel plants. Accordingly, SAIL drew up a corporate export plan with the export target of over 3.5 million tonne by 2004-05.

The table below indicates the country's total export of finished steel materials, the export made by the Company and percentage of Company's export to total export.

[Qty.in lakh tonne]
[Value Rs.in crore].

	92-93	93-94	94-95	95-96	96-97	97-98
1. Total country's export of finished steel (Qty.)	9.27	15.58	12.68	12.66	13.65	17.00
2. Export by the company (Qty.)	2.79	6.48	6.04	4.06	4.88	6.98
(FOB value)	251	557	614	472	629	896
3. Percentage of company's export to total export (in Qty terms)	30	42	48	32	36	41

It may be seen that Company's share of export with reference to total export of the country declined from 48 per cent in 1994-95 to 41 per cent in 1997-98.

A few interesting cases are as under:

(a) The Company entered into a contract with a purchaser from Germany on 18 September 1992 for export of 9505 tonne of hot rolled steel plates. The purchaser established a bank guarantee (BG) for US$ 1,37,500 and opened Letters of Credit (LCs) through State Bank of India (SBI) Overseas Branch, Calcutta, having validity for shipment upto 31 October 1992 and negotiation by 15 November 1992. However, the Company shipped 9486.759 tonne of material on 18 November 1992 i.e. after the expiry of negotiation period of LC and as such the payment thereof amounting to US$ 26,34,097.31 could not be realised. Ultimately the material had to be sold to another German purchaser for a total amount of US$ 23,71,689.75 resulting in a loss of Rs.2.16 crore.

The Management stated (August 1998) that a court case has been instituted against the buyer and the shipping company for their failure to honour the contract. The case was pending (May 1999).

(b) The Company entered into a contract with M/s.Krupp Hoesch Stahlexport, Germany (buyer) on 29 June 1995 for export of 10,000 tonne of plates at a FOB price of US$ 408 per MT. Accordingly, the goods were transported to Vizag Port and 'Notice of Readiness' served on 3 August 1995. However, no vessel was nominated by the buyer on the plea that the condition of the cargo was bad and not acceptable. In the meantime, the validity of the LC opened by the buyer expired on 30 September 1995

and the cargo was diverted to another export contract at a reduced price of US$345 per tonne resulting in a loss of Rs.2.14 crore.

In this case the following shortcomings were noticed:

i) The 'Red clause' of the shipping contract which entitle the seller to realise the value of materials in the event of failure of the buyer to nominate vessels within the stipulated period was withdrawn by the Executive Director (International Trade Division) on 17 July 1995 considering the high value of order and because the buyer had informed that their banker objected to the Red Clause. Accordingly LC was opened without it.

ii) The buyer got the cargo inspected by an agency other than the one specified in the contract and refused to accept the cargo on the basis of their report.

(c) Against an export order (June 1995) for supply of 15000 tonne of stainless steel slabs to Victoria, Brazil, materials produced at ASP Durgapur were brought to the port without making necessary shipping arrangement. In this process the validity period of LC opened by the buyer expired and the contract had to be cancelled. Subsequently (January 1996) the materials were taken back to the plant by incurring an avoidable expenditure of Rs.18.92 lakh on railway freight, loading and unloading charges etc.

The Management stated (August 1998) that extra expenditure was unavoidable due to poor availability of shipping links between India and Latin America at that point of time.

(d) As per the provision contained in the export contract (FOB) the seller (SAIL) has to bear the burden of demurrage on account of delay in loading materials. During the years 1993-94 to 1996-97, the Company had to pay to the foreign buyers demurrage charges amounting to Rs.1.82 crore ($ 571874.38) mainly on account of non-availability of cargo at loading ports even after serving the Notice of Readiness.

6. QUALITY COMPLAINTS

Each steel plant of SAIL has a research and control laboratory for sampling and chemical analysis of raw materials, testing, routine process quality control and metallurgical investigation of day to day nature. In addition, a Research & Development Centre for Iron & Steel (R&DCIS) has also been set up at Ranchi. The Company is also taking the assistance of Bureau of Indian Standards in introducing, evaluating and implementing quality control techniques and allied operational research methods in all the steel plants.

In spite of above, there has not been any significant improvement in the quality of the products as well as reduction in the number of quality complaints as per details given in the following table:-

(Qty.in lakh tonne)

Year	Total No. of quality complaints received	Total Qty. involved	Qty. accepted and downgraded	Financial implication (Rs. in crore)
1992-93	3020	0.70	0.43	4.62
1993-94	3202	0.71	0.49	4.88
1994-95	2163	0.34	0.30	4.33
1995-96	1503	1.02	0.77	3.29
1996-97	2955	1.23	1.02	11.53
1997-98	4978	1.41	0.74	14.03
	17821	5.41	3.75	42.68

Loss on account of quality complaints increased from Rs.4.62 crore in 1992-93 to Rs.14.03 crore in 1997-98 registering an increase of 204 per cent. Further, a compensation of Rs.5.08 crore was paid for settlement of quality complaints on export sales during the period from 1992-93 to 1997-98.

In addition, the Company itself downgraded 2.09 lakh tonne of different products at its various stockyards during the year 1997-98 as per details given below:

	Plants		(Qty.in tonne)		
Product	**Bokaro**	**Bhilai**	**Rourkela**	**Durgapur**	**Total**
Semis	202	10917	-	13177	24,296
Plates	5073	1463	4651	-	11,187
Bars & Rods	-	7551	-	798	8,349
Structurals	-	3351	-	1439	4,790
HR coils/sheets	71496	-	10795	-	82,291
CR coils/sheets	31096	-	19978	-	51,074
GP/GC	1991	-	11249	-	13,240
Pet	-	-	127	-	127
Skelps	-	-	-	13079	13,079
Others	60	-	25	-	85
Total:(i)Qty.	109918	23282	46825	28493	208518
ii)Financial implication (Rs./crore)	40.24	6.41	15.58	6.71	68.94

The financial implication of such downgradation as worked out by the Management amounted to Rs.68.94 crore. The products under quality complaints were mainly CR/HR coils and sheets of Bokaro and Rourkela, semis of Bhilai and skelps of Durgapur Steel Plant.

The Management stated (August 1998) that the trend of quality complaints in domestic sales was an indicator of discretion being exercised by the customers. With the setting up of new steel plant in the private sector with latest technology, the customers had now a number of options for sourcing their requirements. The compensation paid for settlement of quality complaints was commensurate with the techno-economic advantages derived by customers from other sources.

The reply of the Management clearly indicated that the Company had not been able to improve the quality of its products to match with the output of its competitors so as to stand in the competitive market.

The clarification given by the Management is not tenable as the Company was not exercising proper quality control over its products as would be evident from the cases detected by Audit during test check as indicated below:

(a) The Company supplied 22466 tonne of plates to a purchaser of Japan during June/July 1993 and received payment through LC after furnishing the required work test/ pre-shipment inspection certificates issued by M/s SGS (India) Limited. Subsequently, the purchaser lodged a claim (September 1993) for payment of compensation of Rs.4.95 crore (US $ 1574710.29) on the ground that 17076.220 tonne of plates were heavily rusted, bent and dented and also suffered from thickness/size variation and waviness. A compensation of Rs.72.64 lakh was paid to the party in February 1994 as the full and final settlement of their claim even though such compensation was not contractually payable. Further, compensations of Rs.90.87 lakh and Rs.28.89 lakh were also paid to the same party on similar grounds in July 1992 and September 1995 respectively.

The Management stated (August 1998) that payment of compensation was considered necessary so as to establish SAIL as a sustained quality supplier of plates in sophisticated market including Japan.

Management's reply is not tenable. Had the material been supplied as per the requirement of the purchaser, the question of compensation would not have arisen.

(b) The Company accepted a quality complaint from Balmer Lawrie & Company, a PSU, on the ground that 5435 tonne of CR coils supplied during the period from May to October 1992 suffered from various defects like black patch, pin hole, thickness variation etc. even though the party could not provide details like quality, grade, weight, coil number etc. for ensuring proper identification of the material as required for acceptance of quality complaints. Accordingly, a quantity of 3364 tonne of coils was taken back resulting in a loss of Rs.99.07 lakh.

The Management stated (August 1998) that the settlement was based on the credibility of the customer as a public sector undertaking.

(c) Salem Steel Plant(SSP) despatched to Sidma, Llya and Outokumpu, Finland a total quantity of 6170 tonne of slabs produced in Alloy Steel Plant (ASP) Durgapur for conversion into coils and return. However, a quantity of 827 tonne of slabs valued at Rs.3.28 crore were found broken and unsuitable for conversion due to poor quality. The slabs were, therefore, sold to the conversion agent as scrap at a value of Rs.0.40 crore resulting in a loss of Rs.2.88 crore.

The Management stated (August 1998) that the ferritic slabs, by nature, were brittle and the tendency to crack was aggravated by the very cold climate which existed in the country where conversion agent was located. No specific precaution was taken to prevent degeneration of the slabs before sending it abroad.

(d) During September 1993 Salem Steel Plant (SSP) despatched 168.150 MT of slabs (originally manufactured by ASP) valued at Rs. 54 lakh to Calcutta Port for shipment abroad and conversion into coils. As the quality of the slabs was found unsuitable for shipment, it was decided to send back the material to ASP Durgapur. However, rejected slabs could not be removed from port due to labour problems and interim orders of the Calcutta High Court.

The Management stated (August 1998) that the rejected slabs were awaiting transport to ASP for use as scrap.

Thus due to despatch of defective materials for shipment abroad, the Company had to incur an avoidable expenditure of Rs.1.47 crore (October 1993 to March 1998) towards port rent and salaries of CISF personnels.

(e) Bhilai Steel Plant supplied 33,223 tonne of rails valued at Rs.73.48 crore to the Indian Railways during January 1997 which were declared unfit for use by the Railways due to excessive stress generated during straightening in the new bi-planner machine. In a joint meeting held in May 1997 between the Railway Board and the Secretary (Steel) it was decided that a joint inspection would be carried out for segregation and

retrieval of the rails fit for use. Accordingly, segregation and inspection of the rails started in September 1997 and the following position emerged:

(Quantity in tonne)

i)	Total rails under dispute	33223
ii)	Rails segregated (upto 31.3.1999)	27158
iii)	Rails accepted by Railways	10657
iv)	Rails identified as processed through new bi-planner machine and finally rejected	16501
v)	Rails yet to be segregated	6065

Pending segregation, Railways released the payments for Rs.7.95 crore only upto March 1999. The remaining amount of Rs.65.53 crore remained blocked up since January 1997.

The Management stated (August 1998) that the case relating to rejection of rails supplied by BSP to Railways was under discussion with Railway Board.

(f) BSO, Bokaro supplied 3700 tonne of DSP billets to M/s. Usha Martin Industries Limited during December 1996/January 1997. On receipt of the material, the party lodged quality complaints for 2292 tonne having surface defects and wrong chemistry. The defects were also confirmed in the joint inspection of the material conducted at customers' premises. Accordingly, a compensation of Rs.20.95 lakh (at the rate of Rs.950 per tonne) was paid. Similarly 5935 tonne of HR/CR coils supplied to a Malaysian firm in June 1993 were rejected due to various defects like rough edge, side waves, gauge variation etc. and a compensation of Rs.80.81 lakh was paid.

The payment of compensation in the above cases could have been avoided had the materials been properly inspected before despatch.

7. INVENTORY MANAGEMENT

7.1 Stock of Finished/Semi-finished products

The table below indicates the position of stock of pig iron, saleable steel (mild and alloys) and sales thereagainst at the end of the years 1992-93 to 1997-98.

Qty. in lakh tonne

Value in Rs/crore

	Stock at the end of year						total stock		total sales		stock in terms of months' sales
	Pig iron		Saleable steel								
			Mild		Alloy						
Year	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	
1992-93	0.68	32	15.63	1668	1.12	440	17.43	2140	69.29	9369	3.02
1993-94	1.67	79	13.21	1518	0.92	432	15.80	2029	78.11	10787	2.43
1994-95	1.10	53	11.32	1343	0.77	347	13.19	1744	86.02	12768	1.84
1995-96	1.42	80	11.89	1502	0.71	478	14.02	2059	83.38	13363	2.02
1996-97	1.78	111	17.68	2415	0.99	548	20.45	3074	80.13	12584	3.06
1997-98	1.57	96	22.06	3139	1.16	615	24.79	3850	83.05	12807	3.58

The total stock of saleable steel and pig iron as on 31 March 1998 represented 3.58 months' sales as against 1.84 months' as on 31 March 1995. There had been gradual increase in stock inspite of application of various concessional tools as mentioned in paragraph 4.2.

Out of total stock of saleable mild steel of 22.06 lakh tonne as on 31 March 1998, 9.85 lakh tonne (44.65 per cent) represented stockyard stock. It was seen that there was substantial stock holding of plates, HR coils/skelps, CR coils/sheets, wire rods/rounds and pig iron. The age-wise analysis is as under:-

(in lakh tonne)

Age of the materials	Flat products (Plates, HR Coils/ Skelp, CR Coils/ Sheets etc.)	Non-flat products (Billets, Rods Structurals, Rly. materials etc.)	Total
3 to 6 months	1.96	0.58	2.54
6 to 12 months	1.79	0.63	2.42
12 months and above	1.70	0.33	2.03
Total(above 3 months)	5.45	1.54	6.99

It may be seen that 4.45 lakh tonne of finished steel products valuing Rs.633 crore (on pro-rata basis) were lying in the stockyards for more than six months which could not be disposed of even after extending various marketing concessions.

The Management stated (August 1998) that constant efforts were being made to sell the stock lying for more than 6 months.

7.2 Physical verification of stock

According to the prescribed procedure physical verification of stock in plants as well as in the stockyards are carried out in such a manner as to cover each item at least once in a year.

During the years 1992-93 to 1997-98, the following shortages/excesses were noticed during physical verification of finished/semi-finished products in various steel plants/stockyards.

(Rs. in crore)

Year	Bhilai		Durgapur		Rourkela		Bokaro		Alloy/Salem Steel Plant	
	Short/Exes		Short/Exes		Short/Exes		Short/Exes		Short/Exes	
1992-93	54.99	46.52	21.02	28.26	6.32	16.88	13.03	8.33	0.29	1.22
1993-94	23.41	2.97	25.61	26.07	2.21	18.88	8.35	11.36	0.52	1.74
1994-95	1.20	6.19	13.33	3.79	13.20	17.93	12.80	3.90	NIL	6.15
1995-96	0.52	13.81	3.89	6.28	18.25	17.53	11.67	1.08	6.09	0.44
1996-97	22.24	7.55	15.51	4.09	13.48	16.56	4.89	6.51	3.94	1.30
1997-98	34.40	0.32	19.61	32.76	27.68	25.86	19.19	17.90	3.92	1.20
	136.76	77.36	98.97	101.25	81.14	113.64	69.93	49.08	14.76	12.05
Total Shortage - Rs.401.56 crore. **Total Excess - Rs.353.38 crore.**										

Despite repeated discrepancies, the Company did not take any initiative to have the stocks physically verified by an independent outside agency even though the stocks were worth Rs.3800 crore.

The Management stated (August 1998) that verification of stock by an independent outside agency was not feasible in view of the enormity of task and heavy handling cost involved. Further, the shortages were mainly on account of pilferages in transit for which claims were lodged on the Railways as per the existing rules and regulations.

The reply is not acceptable as (i) the amount of stock involved was quite substantial and no verification had been done by an independent outside agency since beginning, (ii) out of total shortage of Rs.401.56 crore, the Company lodged claims for shortage in transit for Rs.18.29 crore which was only 4.6 per cent of the total shortages. Obviously the shortages were not merely on account of pilferage in transit as contended by the management.

8. SUNDRY DEBTORS

The table below indicates the position of Sundry debtors, turnover and percentage of debtors to turnover during the years 1992-93 to 1997-98:

(Rs. in crore)

As on 31st March	Sundry Debtors		Total	Turnover	Percentage of Sundry debtors to Turnover
	Considered good	Considered doubtful			
1993	895.28	17.55	912.83	10174.87	8.97
1994	1544.53	20.24	1564.77	11670.89	13.41
1995	1663.32	38.97	1702.29	13866.54	12.28
1996	1985.07	40.18	2025.25	14710.21	13.77
1997	2016.85	46.15	2063.00	14114.01	14.62
1998	1888.88	42.99	1931.87	14624.07	13.21

It would be observed that the total debts increased from Rs. 913 crore in 1993 to Rs.1932 crore in 1998 indicating deterioration in realisation of debts. Correspondingly, the percentage of sundry debtors to turnover also increased from 8.97 in 1993 to 13.21 in 1998. The increase in sundry debtors was mainly due to allowing of secured/unsecured credit to various customers including private parties.

The following table indicates the details of debts outstanding for more than one year as on 31 March 1998 in respect of Government departments/PSUs and other private parties:

(Rs. in crore)

	Government Deptts./PSUs	Private	Total
More than one year but less than two years.	117.81	26.86	144.67
More than two years but less than three years.	23.10	18.77	41.87
More than three years	58.65	26.43	85.08

Debts outstanding in respect of private parties for more than two years as on 31 March 1998 worked out to Rs.45.20 crore. Out of this, a major portion related to 25 customers whose cheques amounted to Rs.19.06 crore bounced. This has been commented in detail in para no.9 on 'Credit Policy'.

The Management stated (August 1998) that a Task Force had been formed to chase outstandings with customers on one to one basis.

9. CREDIT POLICY

According to the marketing policy of the Company, a free time of 2 days (7 days in respect of pipes, electrical sheets and tin plates) from the date of intimation/presentation of the documents is allowed for making payment of the invoices. In case the payment is delayed beyond the free time, interest is charged upto 7th day and thereafter penal interest at the rate fixed by the Company is charged.

(a) The rate of interest and penal interest recoverable against credit sales during 1997-98 were as under:

(i) Normal rate of interest against secured credit.	19 per cent per annum
(ii) Normal rate of interest against unsecured credit.	22 per cent per annum
(iii) Penal rate of interest for delayed payment.	3 per cent per annum more than the applicable rate as mentioned (i) and (ii)

It was, however, seen that the Company could not realise interest amounting to Rs.1.14 crore from a MOU customer, even though there was delay ranging between 2 and 138 days in making payments by the party against supply of materials during 1994-95.

The Management stated (August 1998) that SAIL took a conscious decision to allow unsecured credit in line with market practices, though fraught with an element of risk, as it could not afford the idea of losing the market.

(b) As per clause 8.2 (Chapter-1) of the Marketing Policy Manual, all payments were to be made by the customers by Bank draft/Pay orders. In case the payment is made by cheque, the documents are to be handed over only after its encashment. In case of MOU customers, payments are to be made by confirmed irrevocable letter of credit/bank guarantee. However, in many cases, the Company offered unsecured credit by accepting post-dated cheques, some of which were subsequently dishonoured. The total amount outstanding as on 31 March 1999 due to dishonoured cheques stood at Rs.44.35 crore of which Rs.31.70 crore pertained to 15 MOU customers and Rs.12.65 crore to 30 other customers **(ANNEXURE-VI)**. The Company had, however initiated legal action for realisation of dues. These cases were still pending (May 1999). The dishonour of cheques from large number of customers clearly indicates that the credit rating of the customers as required under clause 1.4 (Chapter-4) of the Marketing Policy Manual, had not been properly monitored by the concerned branch office before granting the facility of unsecured credit and acceptance of payment through post dated cheques.

The Management stated (August 1998) that there had been a few cases of failure when viewed in the context of total value of credit extended.

Some of the interesting cases are discussed below:-

(i) M/s. B.D.A Steel Limited and their sister concern M/s. B.D. Agarwal and Sons were MOU customers at BSO Jallandhar. The Company extended unsecured credit of Rs.2.5 crore to each of the customers and secured credit of Rs.1.14 crore to M/s. B.D.A Steel Limited.

During the course of transactions in 1995 and 1996, the Company accepted 57 cheques for Rs.8.24 crore from the above customers against supply of materials. However, all the cheques on presentation to SBI, Jallandhar in July/August 1996 were dishonoured. As per the arrangement of SAIL with the bank, SBI was obliged to return the dishonoured cheques to SAIL for taking appropriate action. However, the parties in connivance with the bank officials managed to ensure that such dishonoured cheques did not appear in the bank statements. This was possible by taking photocopy of papers by folding the portion where such entries existed. The photocopy of the bank statements made available to SAIL also did not contain any stamp and signature of the bank's official.

Although the fraudulent use of the cheque by the customers continued for almost a year, the Company failed to detect the fraud due to non-examination of the bank statements properly. The parties re-paid a total sum of Rs.4.30 crore upto March 1998 leaving a balance of Rs.3.94 crore . The Company filed civil suits in May 1997 for recovery of the dues. The cases were still pending (May 1999).

(ii) M/s Mideast Integrated Steel Limited, Orissa purchased 20494 MT of steel material on unsecured interest free credit allowed to them as per MOU signed on 25 May 1994. The party was further allowed (May 1995) to lift material on unsecured interest free credit upto a limit of Rs.4 crore even though Rs.1.08 crore remained unpaid against the earlier credit. The party was also allowed to deposit post dated cheques for lifting the material. However, two cheques both dated 31 July 1996 amounting to Rs.4.52 crore deposited by the party were dishonoured and returned by the bank on 6 September 1996. Total amount outstanding against the party stood at Rs.3.82 crore as on 31 March 1998. The decision of the Management to allow unsecured credit to the party without ascertaining its credit worthiness was injudicious.

The Management stated (August 1998) that the matter was being pursued and if found necessary legal action would be initiated.

(iii) M/s. Kailashpati Steel Industries Limited (KPSL) an MOU customer of BSO, Ghaziabad was allowed unsecured credit of Rs.1.00 crore including acceptance of post dated cheques amounting to Rs.25 lakh. However, party was allowed to lift materials against receipt of cheques/post dated cheques as under:

Qnty. lifted (tonne)	Period of lifting	Amount of cheques/post dated cheques (Rs. in lakh)	Date of presentation	Date of dishonour	Remarks
216.120	July 1997 (on 30 days credit basis)	44.36 (Two cheques dated 30.7.97 and 31.7.97)	30.8.97	2.9.97	Post dated cheques accepted in excess of the limit of Rs.25 lakh.
130.270	August 1997 (on 30 days credit basis)	21.67 (28.8.97)	27.9.97	29.9.97	Post dated cheques accepted before encashment of earlier cheques of Rs.44.36 lakh.
872.510	August 1997	173.29 (five cheques between 29.8.97 and 1.9.97	Between 30.8.97 and 3.9.97	Between 2.9.97 and 5.9.97	Cheque accepted and delivery order issued without ensuring encashment first.

The materials were lifted by the customers against 30 days credit as well as against cash by depositing cheques. All the cheques on presentation to the bank were dishonoured. The first cheque bounced on 2.9.1997 and the materials were lifted well before bouncing of first cheque. Total amount outstanding against the party stood at Rs.2.36 crore as on 31 March 1998. The Company filed criminal suit against the customer which was still pending (May 1999).

The malafide intention of the customer was apparent from the fact that the customer made all efforts to lift 872.510 tonne materials amounting to Rs.1.73 crore on 28 and 29 August 1997 (bank strike) and on 31 August 1997(Sunday). However, normal prudence and vigilance was not exercised by the Branch Authorities to safeguard the interest of the Company.

10. CLAIMS WITH RAILWAYS

Claims for missing wagons as well as for shortages in transit are lodged with the concerned Railways within 6 months from the date of despatch of the materials on the basis of shortage certificate obtained from the Railways. The total amount of claims pending with Railways as on 31 March 1998 stood at Rs. 31.17 crore. The age-wise break-up is as under:

(Rs. in lakh)

	Upto 1 Yr.	Over 1 Yr & upto 3 Yrs.	Over 3 Yrs.	Total
1. Missing wagon	415.80	327.27	544.69	1287.76
2. Shortage-in-transit	19.50	99.61	1710.27	1829.38
	435.30	426.88	2254.96	3117.14
3. Per cent with reference to total	14	14	72	100

From the above, it can be seen that Railway claims pending over 3 years constitute 72 per cent of the total claims.

An analysis of Railway claims toward shortage in transit revealed that out of the total claims of Rs.18.29 crore as on 31st March 1998, claims worth Rs.10.56 crore were lodged by the Company on the basis of Independent Surveyor's certificate due to Railways' reluctance for re-weighment.

The Management stated (August 1998) that based upon the efforts made with Zonal Railway, the Railway Board had concluded that it would not be possible to evolve a uniform package but each case would be decided on merit including cases relating to Independent Surveyors.

The realisation of the above claims is doubtful since the shortages certified by Independent Surveyors were not accepted by the Railways.

11. OTHER TOPICS OF INTEREST

(a) Procurement of equipment without requirement:

In order to handle iron and steel materials at Haldia stockyard, the Company imported two travel lifts from M/s MI-JACK Products, USA in April 1994 at a cost of Rs.3.58 crore. The equipment were commissioned on 6 July 1994. However, the equipment could not be operated due to non-development of the area between the railway tracks. The Company decided (December 1995) to shift one lift to other stockyard and utilise the other by hiring it out to handling contractors.

However, both the lifts were shifted to Vizag stockyard only in June 1997 and August 1997. Thus, the equipment imported at a cost of Rs.3.58 crore remained idle for almost 3 years since commissioning in July 1994.

The Management stated (August 1998) that Haldia stockyard was capable of handling with existing facilities.

Thus procurement of equipment without assessing actual requirement led to blocking of capital for 3 years.

(b) Infructuous expenditure on publicity at Vidya Sagar Setu:

With a view to acquiring exclusive publicity right on Vidya Sagar Setu (Second bridge on river Hoogly between Calcutta and Howrah) the Company incurred an expenditure of Rs.62.18 lakh in November 1994 for providing decorative neon light on the Setu. However, the hordings displaying company's publicity could not be fitted on the Setu due to non-availability of wind pressure certificate from the competent authority.

The Management stated (August 1998) that fabricator also could not obtain the necessary clearance from the Hoogly River Bridge Commissioner (HRBC).

Thus, the purpose for which the illumination of the Setu was done could not be achieved and the entire expenditure of Rs.62.18 lakh proved to be infructuous.

(c) Avoidable expenditure on transportation of imported coke:

Imported coking coal is discharged at Haldia and Paradeep port to meet the requirement of Bokaro Steel Plant (BOSP) and Durgapur Steel Plant (DSP). While railway freight from Haldia to Bokaro and Durgapur is almost the same (444 Km), the freight from Paradeep to Bokaro (814 Km) was more than that to Durgapur (713 Km). In March 1993, the Company decided to cater the entire requirment of DSP from Haldia port which, in turn, resulted in despatch of more quantity from Paradeep to BOSP at a higher cost. During the period 1993-94 to 1996-97, the Company incurred an avoidable expenditure of Rs.12.96 crore on transportation of 23.32 lakh tonne of coal from Paradeep to BOSP.

The Management stated (October 1996) that the despatch of coal from Paradeep to BOSP was done on the basis of availability of rakes and operational constaints.

The fact, however, remains that overall financial implication was not considered before taking the decision in March 1993 to cater the entire requirement of DSP from Haldia port.

(d) Non-compliance of shipping schedule:

The Company entered into a Contract of Affreightment (COA) on 2 July 1994 with Shipping Corporation of India (SCI) for transportation of 7.5 lakh tonne of coking coal from Australia with shipping period from July to November 1994. Out of 16 vessels nominated by SCI for transportation of coal, the Company could not accept 4 vessels due to non-receipt of confirmation from the supplier within the shipping period and could transport only 6.48 lakh tonne under the contract. Subsequently, another 0.92 lakh tonne were transported at higher cost resulting in extra expenditure of Rs.1.43 crore which could have been avoided had the Company adhered to the contractual shipment schedule or taken timely action for extending the shipment period.

The Ministry stated (August 1998) that 4 vessels were taken on spot basis during the month of August-November 1994 almost at the same rate which compensated the quantity covered under the 4 vessels left out under the COA.

The fact, however, remains that the Company had to incur an extra expenditure of Rs.1.43 crore due to non-compliance of the shipment schedule.

(e) Delay in shifting office premises:

The Company took possession of office premises (two floors) at Calcutta in June 1993 at a monthly rent of Rs.3.73 lakh for shifting its offices from Podder Court Building. However, there was inordinate delay in issuing the work order and completion of interior decoration. The actual shifting of the offices was completed in the first week of February 1995 and the old accommodation surrendered on 28 February 1995 which could have been surrendered at least 15 months earlier had prompt action been taken to shift the offices. This has resulted in avoidable payment of rent for the old premises to the extent of Rs.24.37 lakh.

The Ministry stated (August 1997) that there had not been any undue delay except unavoidable delays due to procedural problems.

However, chronological sequence of events clearly indicate that there was delay at every stage which could have been avoided had proper planning been made and prompt action taken to shift the office premises from the old building.

(f) Mis-appropriation of material:

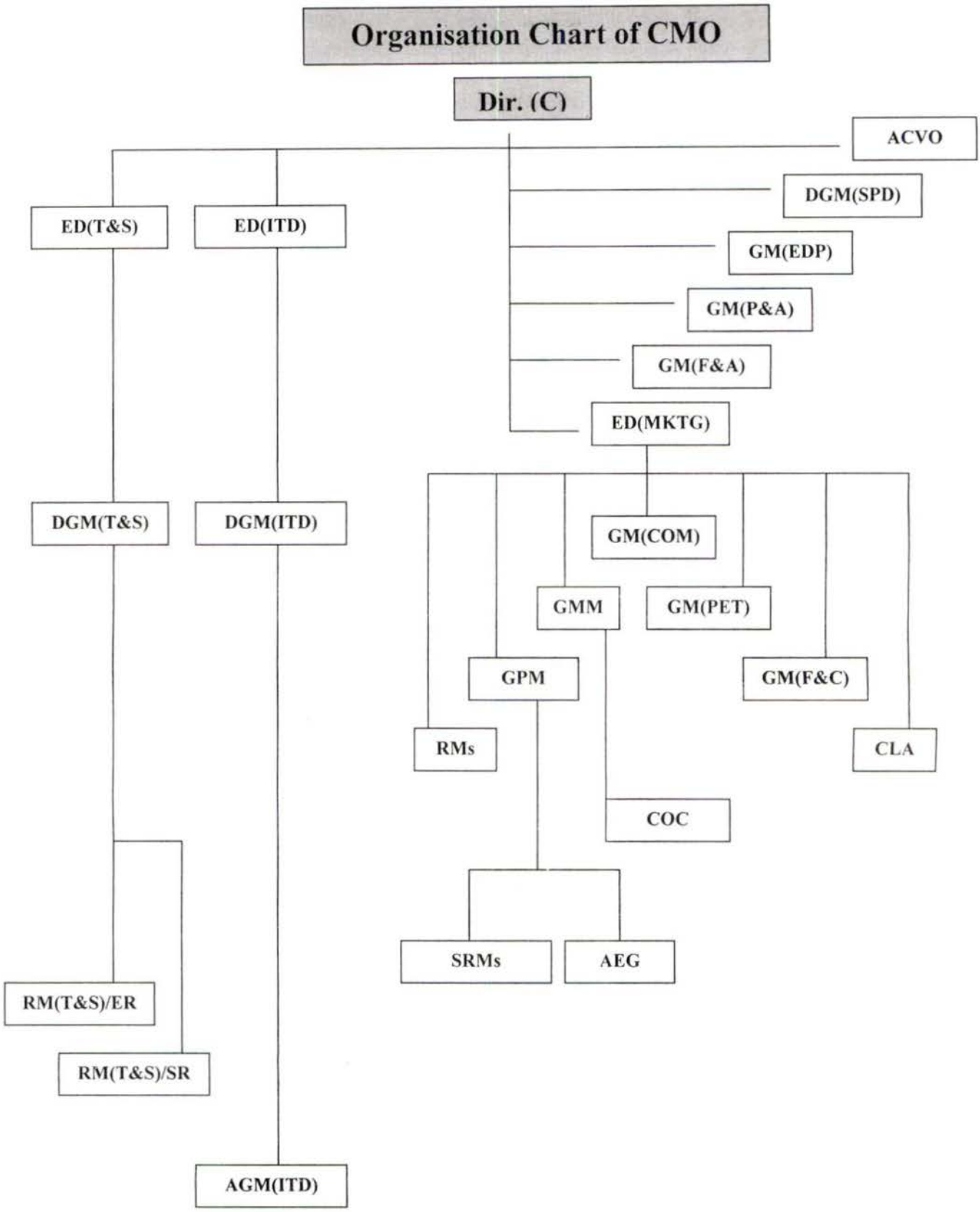
M/s.Pal Goods Transport Corporation, obtained steel materials worth Rs.1.13 crore from Branch Sales Office (BSO), Nagpur in 1991 for delivery to various Government agencies.

The transporter mis-appropriated the material by submitting false and forged material receipt certificate, bogus truck number etc.

The case was under investigation with CBI (May 1999).

The review was issued to the Ministry in September 1998; their reply was awaited (May 1999).

Annexure-I


Organisation Chart of CMO
Dir. (C)
ACVO
DGM(SPD)
GM(EDP)
GM(P&A)
GM(F&A)
ED(MKTG)
ED(T&S)
ED(ITD)
DGM(T&S)
DGM(ITD)
GM(COM)
GMM
GM(PET)
GPM
GM(F&C)
RMs
CLA
COC
SRMs
AEG
RM(T&S)/ER
RM(T&S)/SR
AGM(ITD)

ANNEXURE - II

(refer para 1.2)

STOCKYARD NET WORK OF SAIL

Region	Sl.No.	Branch	Sl.No.	Stockyard	
				Location	Type
NORTH WEST	1.	JAMMU	1.	JAMMU	SY
	2.	SRINAGAR	2.	SRINAGAR	CA
	3.	JALANDHAR	3.	JALANDHAR	SY
	4.	LUDHIANA	4.	LUDHIANA	CA
	5.	MANDIGOBINDGARH	5.	MANDIGOBINGARH	CA
	6.	CHANDIGARH	6.	CHANDIGARH	SY
			7.	PARWANOO	SY
NORTH	7.	DELHI	8.	DELHI	SY
			9.	DELHI	CA
	8.	FARIDABAD	10.	FARIDABAD	SY
			11.	FARIDABAD	CA
	9.	GHAZIABAD	12.	GHAZIABAD	SY
	10.	KANPUR	13.	KANPUR	SY
	11.	LUCKNOW	14.	LUCKNOW	CA
	12.	ALLAHABAD	15.	ALLAHABAD	SY
	13.	AGRA	16.	AGRA	CA
EAST	14.	CALCUTTA	17.	CALCUTTA	SY
			18.	DANKUNI	SY
	15.	HOWRAH	19.	SILUGURI	CA
	16.	DURGAPUR	20.	HOWRAH	SY
	17.	BOKARO	21.	DURGAPUR	SY
	18.	PATNA	22.	BOKARO	SY
	19.	ROURKELA	23.	PATNA	SY
	20.	BHUBANESWAR	24.	ROURKELA	SY
	21.	GUWAHATI	25.	BHUBANESWAR	SY
			26.	GUWAHATI	SY
			27.	NEW BONGAIGAON	SY
	22.	DIMAPUR	28.	SILCHAR	CA
	23.	VIZAG	29.	DIMAPUR	SY
			30.	VIZAG	SY

Region	Sl.No.	Branch	Sl.No.	Stockyard	
CENTRAL	24.	INDORE	31.	INDORE	SY
	25.	BHILAI	32.	BHILAI	SY
	26.	GWALIOR	33.	GWALIOR	SY
	27.	JAIPUR	34.	JAIPUR	SY
			35.	BHARATPUR	CA
	28.	KOTA	36.	KOTA	SY
	29.	JABALPUR	37.	JABALPUR	CA
WESTERN	30.	BOMBAY	38.	BOMBAY	SY
			39.	GOA	CA
	31.	PUNE	40.	PUNE	SY
	32.	NAGPUR	41.	NAGPUR	SY
	33.	AHMEDABAD	42.	AHMEDABAD	SY
	34.	BARODA	43.	KHODIYAR	SY
			44.	BARODA	SY
SOUTHERN	35.	MADRAS	45.	MADRAS	SY
			46.	PONDICHERY	CA
	36.	HYDERABAD	47.	HYDERABAD	SY
	37.	BANGALORE	48.	NAGULAPALLY	SY
	38.	BELGAUM	49.	BANGALORE	SY
	39.	TRICHY	50.	BELGAUM	CA
	40.	COIMBATORE	51.	TRICHY	SY
	41.	COCHIN	52.	COIMBATORE	SY
	42.	VIJAYAWADA	53.	COCHIN	SY
			54.	VIJAYAWADA	SY

ANNEXURE-III

(refer Para 3.2)

CATEGORY-WISE TOTAL DEMAND, SALES PLAN, PRODUCTION AND SUPPLY FOR THE YEAR 1995-96 TO 1997-98.

(Qty. – '000 tonnes)

CATEGORY	1995-96				1996-97				1997-98			
	Total All India dema-nd	SAIL's sales plan	Prodn.	Actual supply	Total all India dema-nd	SAIL's sales plan	Prodn	Actual supply	Total all India dema-nd	SAIL's sales plan	Prodn.	Actual supply
Pig Iron	2000	475.00	543.70	343.40	2300	643.50	629.20	429.30	2550	482	756.30	291.40
Re-rollable Finished Steel	-	955.50	1632.20	1368.10	-	1209	1775.60	1462.00	-	1146	1781.60	1294..20
Bars & Rods	6590	796.00	787.00	1003.30	8020	814.	869.80	1028.90	8100	863	871.80	991.60
Structurals	2120	589.50	615.00	673.90	2750	662	631.40	544.50	3000	721	626.00	592.40
Plates	1500	1214.20	1700.70	1415.70	2100	1446	1599.90	1095.10	1950	1080	1459.40	1058.60
H.R. Coils/Skelp	2900	1456.00	1555.00	1733.70	4900	1308	1313.40	1274.90	5000	1461	1327.40	1251.50
H.R.Sheets	570	294.00	259.00	-	630	359	244.80	215.10	650	274	243.70	246.20
C.R.Sheets/ Coils	2300	1138.10	1131.10	1044.40	3200	1248	1070.60	910.80	3350	956	1059.60	978.10
GP/GC Sheets/Coils	680	299.50	310.80	336.40	920	325	300.50	284.30	1200	332	345.10	278.30
Electrical Steel Sheets	210	70.00	49.10	51.30	270	58	35.00	34.20	230	45	30.30	36.10
Ti n Plates	270	59.40	23.10	37.50	280	74	13.40	16.00	300	50	28.50	30.50
Pipes	350	99.70	80.40	76.00	350	100	93.20	93.40	450	105	82.30	73.10
Railway Materials	500	509.00	494.10	522.60	620	527	515.40	505.60	650	496	506.00	492.30
Others	-	-	-	-	-	-	-	-	-	-	-	182.60
Total Finished Steel	17990	6525.40	7005.30	6894.80	24040	6921	6687.40	6802.80	24880	6383	6580.10	6211.30

ANNEXURE - IV

(refer Para 3.2)

Statement showing the plant-wise, product-wise plan, order coverage and Sale (including transfers) thereagainst in respect of Iron & Steel materials during the year 1997-98.

Plant	Category	Plan	Order Coverage	Actual	Remarks
BSP	Semis	483.5	563.9	505.5	(Source-Daily Report of PMG/CM/SAIL/Cal. in connection with Despatch Plan, Order Coverage, Actual Supply)
	Rounds	108.7	68.2	56.4	
	TMT	79.5	99.5	72.1	
	Lt. Strls	246.5	340.9	251.7	
	Wire Rod	430.5	447.8	376.0	
	Hy. Strls	133.8	125.7	101.7	
	Plate	196.8	205.6	198.2	
	Pig Iron	90.0	63.1	59.2	
	Rail	443.0	445.7	382.2	
			2360.4	**2003.0**	**357.4**
DSP	Rounds	53.0	61.9	46.9	
	TMT	200.4	270.4	163.9	
	Med Strls.	152.1	138.3	90.2	
	Skelp	217.5	156.6	168.9	
	Rly. Matl.	44.3	33.7	31.0	
	Semis	393.8	573.0	439.6	
			1233.9	**940.5**	**293.4**
RSP	PM Plate	239.3	294.7	166.2	
	HRP/CQP	77.3	114.4	65.5	
	HR Coil	238.2	301.6	202.1	
	CR Coils/CR Sheets	203.5	194.2	132.2	
	GP/GC	144.6	181.9	133.1	
	PET	120.5	135.6	126.9	
			1222.4	**826.0**	**396.4**
BSL	HR Coil	1070.3	727.5	666.9	
	HR Plate	523.0	596.2	339.7	
	HR Sheet	273.0	374.9	169.0	
	CR Coils/CR Sheets	818.1	757.8	596.3	
	GP/GC	169.7	212.6	145.5	
	Pig Iron	268.0	174.1	128.4	
			2843.1	**2045.8**	**797.3**
	Total		**7659.8**	**5815.3**	**1844.5**

ANNEXURE - V

(refer Para 4)

(Rupees per MT)

Name of the Product	Price * prior to decontrol	Price after decontrol**	Percentage of increase
Angles	8790-8890	10500-13700	19-54
Channels	7845-7945	11600-17000	47-113
Plates	9175-10030	14100-17700	53-76
H.R. Coils	9575-9710	14000-15200	46-56
H.R. Sheets	10025-10655	13950-15200	39-42
Skelps	9060-9225	13650-14700	50-59
C.R. Coils	10790-11360	16100-19500	49-71
C.R. Sheets	10960-11525	16600-20000	51-73
G.P. Sheets	10900-11595	18650-23450	71-102
G.C. Sheets	10955-11645	18950-23750	72-103

* As per price revision of September 1990.

** As per price revision of September 1997.

ANNEXURE VI

STATEMENT SHOWING CUSTOMERS WHOSE CHEQUES HAVE BEEN DISHONOURED

(Rs. in lakh) (refer Para 9)

Sl. No.	Branch	Names of Customer	Month/Year of Transaction	Amount outstanding (31/3/99)
1.	Bhubaneswar	M/s. MIDEAST (MOU)	May 96	382.00
2.	Ahmedabad	M/s. Gujarat Steel Tube Limited (MOU)	May/June 1997	596.00
3.	Ghaziabad	M/s. Atma Steels Limited (MOU)	July 1995	371.00
4.	Ghaziabad	M/s. Kailashpati Steel Industries (MOU)	1997-98	236.00
5.	New Delhi	M/s. Jain Tubes Co. (MOU)	1994	200.00
6.	Indore	M/s. Pratap Steel Roll Mills Limited	April/May 1996	48.00
7.	Chandigarh	M/s. ATPL (MOU)	1995-96	226.00
8.	Ludhiana/Jalan	M/s. B.D.A. Group (MOU)	June/July 1996	357.00
9.	Bokaro	M/s. Sarat Tubes (MOU)	February 96	19.00
10.	Howarah	M/s. Enfield Industries(MOU)	Oct./Nov. 96	30.00
11.	Baroda	M/s. FLEET WELL	December 1995	54.00
12.	Baroda	M/s. Navasari Processing Industries	October 1995	87.00
13.	Nagpur	M/s. Saroj Metal Works	1993-94	6.00
14.	Faridabad	M/s. Vishkarma Agro Allied Industries	1993	88.00
15.	Faridabad	M/s. Parvati Enterprises	September 1993	5.00
16.	Ghaziabad	M/s. Vikash Tubes Limited (MOU)	December 1995	36.00
17.	Ghaziabad	M/s. Jai Durga Metal Industries	Decemeber 1994	7.00
18.	Ghaziabad	M/s. Sharma Tubes Mills (P) Limited	March 1993	5.00
19.	Ghaziabad	M/s. Gaurav Pipes	May 1995	3.00
20.	Kanpur	M/s. Ravi Steel	March 1988	4.00
21.	Lucknow	M/s. Goyal Associates		3.00
22.	New Delhi	M/s. Coolet Steel	July/Aug. 1997	85.00
23.	New Delhi	M/s. Matalite Industries	1995-96	65.00
24.	New Delhi	M/s. Lata Steel Agency	Sept./Dec. 1995	493.00
25.	New Delhi	M/s. Sunil Engg.	August 1995	61.00
26.	Hyderabad	M/s. Kanyaka Parmeswari Pvt. Limited	1996-97	37.00
27.	Hyderabad	M/s. T.M.T. India Limited	1996-97	53.00
28.	Hyderabad	M/s. Southern Steel Limited	1997-98	10.00
29.	Gwalior	M/s. Anjali Coolers (P) Limited	April 1996	15.00
30.	Kota	M/s. International Limited	June 1994	18.00
31.	Chandigarh	M/s. Delhi Loha Bhandar	1989-90	17.00
32.	Chandigarh	M/s. Gupta Indistries	1989-90	12.00
33.	Ludhiana/Jalan	M/s. Goyal Industries	December 1994	3.00
34.	Jammu	M/s.Trans Asia Tubes & Indus. Ltd (MOU)	November 1993	66.00
35.	Mumbai	M/s. Agya Fabricators	1988-89	6.00
36.	Mumbai	M/s. Kundanlal Agarwal & Sons	1988-89	51.00
37.	Gwalior	M/s Kamakshya Special Steel (MOU)	1998-99	164.00
38.	Ghaziabad	M/s Capital Industires	1998-99	17.00
39	Delhi	M/s Delta Pump	1998-99	5.00
40	Bhubaneswar	M/s R. Steek	1998-99	3.00
41	Faridabad	M/s Century Tubes (MOU)	1998-99	203.00
42	Kanpur	M/s Kannan Steel (MOU)	1998-99	136.00
43	Ludhiana	M/s Darshan Forgings	1998-99	1.00
44	Hyderabad.	M/s Bellary Steels (MOU)	1998-99	148.00
45.	Ahmedabad	M/s Ham Industries	1998-99	3.00
			TOTAL	4435.00

CHAPTER 3 : IMPORT OF COKING COAL BY SAIL

INDEX

OVERVIEW

1. Introduction

Steel Authority of India Limited (SAIL) has been importing coking coal since 1978-79 to meet the gap between indigenous availability and actual requirement and also to improve the technical parameters of coal blend. Coking coal was purchased on spot price and on long term contract basis. A total of 60.287 million tonne of coking coal was imported up to March 1998

(Para-1)

2. Relaxation in the specifications and lowering/deletion of penalties

Technical specifications of coal fixed in 1978 were changed 10 times upto the year 1991 and were further broad based in March 1995.

[Para 2(a) (i)]

(a) Due to broad basing of technical specifications, SAIL could not recover penalty to the extent of US$ 5.364 million equivalent to Rs.19.02 crore on account of lowering the range of volatile matter contents in the imported coal.

(b) SAIL had to bear extra expenditure of Rs.2.95 crore towards freight charges for carrying extra moisture weight due to increasing the maximum moisture level from 10 per cent to 12 per cent.

(c) There was short recovery of penalties to the extent of Rs.44.39 crore relating to the years 1995-96 and 1996-97 due to relaxation of specifications and lowering the rate of penalties relating to moisture and ash contents under long term contracts.

[Para 2 (b) (ii)]

3. Extra expenditure/losses on spot purchases

SAIL procured 11.785 million tonne of imported coal on spot purchases by floating 7 global tenders during the period from October 1992 to March 1995.

Few interesting points noticed were as under:

i) The market price of same brand of coal was found to be lower as compared to the price paid by SAIL. Even the price paid by Rashtriya Ispat Nigam Limited (RINL), another PSU under the same Ministry was lower than that of SAIL by US$ 1.75 to US$ 3.51 for the same brand/specifications which resulted in extra financial burden to the extent of Rs.14.36 crore in 5 cases.

[Para 3 (a)]

ii) The offers of lowest 9 & lowest 10 tenderers of March 1994 were not considered for placement of order, even though it was known that there was an increasing demand and shortage of coal in the international market. This resulted in an extra expenditure of Rs.5.14 crore.

[Para 3 (b)]

4. Deviation from Government guidelines and irregularities in long term contracts

SAIL entered into long term contracts in March 1995 for a period of 3 years with an option to extend the same by another 2 years. The long term contracts were concluded on the basis of limited tender adopting the Japanese Steel Mill (JSM) price for price fixation.

The following deficiencies were observed:

i) Adopting JSM price was not correct as in earlier occasions the JSM prices were found to be higher in many cases as compared to SAIL price.

[Para 4(i)]

ii) SAIL obtained certificates from Chartered Accountants in respect of price paid by JSM. However, SAIL could not obtain a copy of JSM contract with Australian suppliers to ascertain the JSM price and other terms and conditions of the contract.

[Para 4(ii)]

iii) The approval/clearance of Government for entering into long term contract beyond September 1997 was not obtained. Further, the actual import during 1995-96 to 1997-98 exceeded the permissible limit of 3 million tonne per year.

[Para 4(iii)]

iv) SAIL issued limited tender enquiries by deviating from the practice of issuing global tender even though there was a major revision in the specifications and penalty provisions.

[Para 4 (iv)]

5. Additional expenditure on long term contracts

i) The prices of hard coking coal paid by SAIL under long term contracts were found to be higher by US$ 0.10 to US$ 3.13 per MT as compared to market price. The extra expenditure worked out to Rs.36.27 crore in 10 cases.

[Para 5(a)]

ii) The Company revised buyer's option at +/- 20 per cent from 1998-99 under extended period of LT contract. Had the Company kept the buyer's option at this percentage from 1995 (which was kept at +/- 5 per cent), it could have saved a sum of Rs.14.46 crore during 1995-96 to 1997-98 by exercising additional option.

[Para No.5(c)]

6. Payment of Agency Commission

In violation of Government's instructions, SAIL allowed the foreign suppliers to engage Indian agents and paid Rs.5.64 crore as agency commission during 1992-93 to January 1998.

[Para 6]

7. Other topics of Interest

i) Responsibility for purchase of imported coking coal did not remain exclusively with Director (Raw Material Division) and changes were also made in the administrative control which showed lack of appreciation of importance of such a vital purchase involving thousands of crore of rupees.

[Para 7 (a)]

ii) During the period 1994-95 to 1996-97, a quantity of 133384 tonne of imported coking coal was despatched by Bokaro Steel Plant to M/s Durgapur Coke Oven Projects, for conversion into coke though this facility was available in the plant. This resulted in an extra expenditure of Rs.11.11 crore.

[Para 7 (b)]

iii) SAIL purchased coking coal from New Zealand during the period from 1995-96 to 1997-98 at higher landed price resulting in extra financial implication to the extent of Rs.16.41 crore.

[Para 7 (c)]

iv) To protect the coal from rain, the Railway wagons were covered with polythene sheet from port to steel plant, SAIL incurred an additional expenditure of Rs.2.95 crore without any proper justification since the coal was kept in the open at the ports/plants exposed to rain and sun.

[Para 7 (d)]

1. Introduction

Steel Authority of India Limited (SAIL) has been importing coking coal since 1978-79 in order to meet the gap between indigenous availability and actual requirement and improve the technical parameters of coal blend. A total quantity of 60.287 million tonne of coking coal was imported upto March 1998. The percentage of imported coal to total consumption increased from *3.9 per cent in 1983-84 to 49.84 per cent in 1997-98.*

Upto 1989, SAIL procured coal at spot price. In 1989 for the first time approval of Government was obtained for purchase of 1 million tonne of imported coal from Australia on long term (LT) basis for 3 years so as to maintain consistency in coal quality. Government gave further approval in June 1992 for entering into a long term contract for purchase of imported coal to the extent of 3 million tonne per year for a period of 5 years beginning from October 1992 subject to the following guidelines.

- SAIL should insist on both load port and discharge port analysis of the material.
- The reasonability of price and its international competitiveness should be certified by the Government of Australia/independent auditors based on their comparison with the prices being offered by the Australian Companies to Japanese Steel Mills(JSM).
- Notice inviting tenders should contain the specifications, which while being suitable to SAIL, should be broad enough to admit adequate and healthy competition amongst the Australian parties.
- The terms and conditions of the contract should be well considered, discussed, approved by appropriate authorities and publicised and not varied during the course of the tender, thus obviating the possibilities of discrimination, and
- Necessary approval to the outcome of the evaluation of tenders to be obtained by the Committee of Directors from Chairman, SAIL.

However, in view of prevailing international steel scenario pointing to a decline in steel production, increased coal availability abroad particularly in Australia and possibility of reduction in use of imported coal by SAIL, the Company resorted to spot purchases as against Government approval for LT contract from October 1992 to March 1995. The Company entered into LT contract after March 1995 only.

Scope of Audit and main audit findings

Audit of transactions relating to import of coking coal by SAIL was conducted between 29 January 1998 and 20 February 1998 covering the period from July 1992 to December

1997. The main findings of this study, discussed in detail in the subsequent paras are listed below:

(a) Between 1978 to 1991 SAIL changed the technical specifications of imported coal ten (10) times. There was no justification for changing the specifications so frequently because the coal finally imported was by and large of the same quality. In 1995 while linking the prices with Japanese Steel Mills (JSM) price SAIL broad based the technical specifications and deleted/eased certain penalties in respect of Ash, Moisture and Volatile matter etc. This resulted in a loss of Rs.66.36 crore.

[refer para 2]

(b) SAIL did not maintain an adequate data base to analyse movement of coal prices in the international market. A test check of some of the spot purchases during 1994-95 revealed that in atleast five cases SAIL paid higher price than the price paid by Rashtriya Ispat Nigam Limited (RINL) for the same brand of coal or coal of the same specification. Thus, SAIL paid an avoidable additional sum of Rs.14.36 crore as compared to RINL. The fact that RINL which is a late entrant in the coking coal market and is a much smaller buyer as compared to SAIL could buy coking coal at much cheaper rates (difference ranging from US$ 1.75 to US$ 3.51) is indicative of inadequacy of both SAIL's mechanism to monitor the market and its negotiating power.

[refer para 3(a)]

(c) (i) SAIL decided to enter into long term contract at JSM price in March 1995 to import 5 million tonne for a period of 3 years starting from April 1995. While entering into long term contract in 1995 SAIL deviated from Government guidelines in respect of load/discharge post analysis, adoption of JSM prices etc.

(ii)SAIL had been issuing global tender notices for pre-qualifications of suppliers whenever there was a major revision in the specifications. The above procedure was not followed before entering into long term contract and the Company issued limited tender enquiries even though there were major revisions in the specifications and penalty provisions.

(refer para 4)

(d) For long term contracts SAIL adopted JSM price. This decision was not justified because analysis of prices of earlier years revealed that prices paid by SAIL on spot purchases were lower than the JSM prices except in the year 1994 although SAIL's specifications were more rigid. Because of adoption of JSM price SAIL had to pay an additional sum of Rs.36.27 crore as compared to prevalent international prices in 10 cases during 1995-96 to 1997-98.

(refer para 5)

2. Relaxation in the specifications and lowering/deletion of penalties

(a)(i) The technical specifications of coal fixed by SAIL in 1978 were as under :

	Size fraction below 0.5 mm	Total Moisture	Volatile matter	Ash	Sulphur	CSN	MMR
Desired specification	20 per cent Max	6 per cent max	20-26 per cent	10 per cent max	0.6 per cent max	4.5 Min	Above 1
Absolute max./min (1980)	25 per cent Max	10 per cent Max	20 per cent min.	10 per cent max	0.8 per cent max	-	1 min

SAIL, however, did not stick to the above specifications and changed it 10 times up to the year 1991. The specifications as fixed in 1991 were as under:-

	Size fraction below 0.5 mm	Total Moisture	Volatile matter	Ash	Sulphur	CSN	MMR
Desired specification	25 per cent Max.	8 per cent max.	23-28 per cent	8 per cent max.	0.6 per cent max.	6 Min	1.15 to 1.30
Absolute max./min.	30 per cent Max	10 per cent max	22 -30 per cent	10 per cent max	1 per cent max	5 Min	1.10 min 1.30 max

N.B: CSN:-Crucible Swelling Number, MMR:-Mean Max Reflectance of Vitrinite.

The specifications were further broad based in March 1995 [sub-para (b)]

(ii) Such frequent changes in technical specifications lacked justification when the specifications of actual supplies were by and large the same. This is supported by the fact that a comparison of average of load port analysis of all shipments made against spot agreements for three brands of coal supplied to SAIL during the period December 1989 to July 1992 and again supplied under long term contract in 1997-98 revealed that although the desired specifications of SAIL were different during the periods the coal brands were the same and the actual specifications of the coal finally imported were by and large the same.

The Management while accepting the facts stated (July 1998) that *only ash percentage could be changed since it depends on the extent of washing.* The Management added that standardisation of specifications in SAIL might not be relevant till SAIL shifted to 100 per cent usage of imported coal. Further, change in specifications contributed in improvement of coke rate from 816 Kg/thm (per tonne hot metal) and 885 Kg/thm (1983-84) to 572 Kg/thm and 575 Kg/thm (1997-98) in Bhilai Steel Plant (BSP) and Bokaro Steel Plant (BSL) respectively.

The reply of the management is not tenable as they themselves admitted that there were only insignificant changes in quality of actual supplies. Since the quality of coal received by SAIL remained by and large the same, management's argument that changes in specification contributed in improvement of coke also becomes unsustainable. It was observed by audit that improvement in coke rate was primarily due to increase in percentage of imported coal in the blend. The use of imported coal in Bhilai and Bokaro Steel Plant was 10.4 per cent and 1.4 per cent to the total consumption during 1983-84 which went upto 56.60 per cent and 47.60 per cent respectively during 1997-98.

The Inter-Ministerial Group in their report (February 1990) also did not appreciate the frequent changes and *opined that with the vast experience gained over a period of time, it would have been possible for SAIL to zero in to a set of specifications that could be considered as optimal to its need.*

b) Under long term contracts entered into with Australian suppliers in 1995 for three years at Japanese Steel Mills (JSM) rate, SAIL further broad based the specifications of imported coking coal by making following changes:

Total Moisture (TM)	Absolute maximum/minimum tolerance limit was increased to 12 per cent from the existing 10 per cent.
Volatile Matter(VM)	Range of 23 per cent to 28 per cent was changed to 20 per cent to 32 per cent.
Mean Maximum Reflectance (MMR) of Vitrinite	Range of desired specification of 1.15 - 1.30 was revised to 1.15 - 1.35 and absolute maximum/minimum was revised from 1.10- 1.30 to 1.10 -1.40.
Fraction below 0.50 mm	Existing limit of maximum 25 per cent with cut of limit of 30 per cent was deleted.

The following changes were also made in penalty provisions :

- **Total Moisture(TM)**-The existing formula of reducing the invoice weight for excess percentage of moisture over 8 per cent upto 10 per cent by 1.3 per cent for every 1 per cent increase and for above *10 per cent by 2.6 per cent with a cut off limit of 11 per cent was revised to 1 per cent for every 1 per cent increase* in total moisture over 8 per cent *with cut off limit of 12 per cent.*

- **Ash** -The existing penalty of US $ 1.80 per MT for every increase in ash by 1 per cent or part in excess of the guaranteed ash percentage specified by the seller was *changed to US$ 1.25 after allowing a tolerance of 0.5 per cent.*

- **Size fractions below 0.5mm** - The penalty at the rate of US$ 0.15 per MT for every increase of 1 per cent *in excess of 25 per cent* with cut off limit of 30 per cent was *deleted.*

- **Volatile matter(VM)** - The penalty of US $ 0.50 per MT for *every decrease of 1 per cent was deleted.*

- **Crucible Swelling Number (CSN)** -Penalty of US $ 0.50 per MT for every decrease of five decimal points *was deleted.*

As a result of the above changes i.e. broad basing of the specifications, lowering the rate of penalties in respect of moisture, ash and deletion of penalties in respect of volatile matter, the Company suffered a loss of Rs.66.36 crore as discussed in the following paragraphs. Further, it also did not benefit the Company in terms of prices as SAIL paid higher price as compared to prevalent market price [refer para 5 (a)]. Relaxation in specifications and lowering the rate of penalties led to accommodation of one particular supplier (M/s Shell supplying German Creek coal) who met nearly one third of import of coal by SAIL.

i) The penalty clauses were completely *deleted* in respect of *VM, size fraction and CSN and reduced in respect of TM and Ash.* The specifications were *relaxed in respect of all major parameters.*

The Management stated (July 1998) that no useful purpose would have been served by stipulating the penalty clauses for VM as in almost all shipments under long term contract (except German Creek) VM continued to be within 23 -28 per cent range (as per 1991 specifications). In respect of size stipulation management stated that prior to Long term (LT) contract, size fractions below 0.5 mm were found to be more than 25 per cent only in case of 5 shipments out of 114 shipments.

The reply is not tenable as the German Creek brand coal (having low VM from 20 to 22 per cent) constituted a major portion of the supplies (1.5 million tonne i.e. 30 per cent of total import in a year) under LT contract. German Creek coal *would have been rejected* had the specifications not been broad based. The average specifications of actual supplies of the German Creek prior to LT contract and after LT contract were as under:

	Volatile Matter (VM) per cent	**Mean Maximum Reflectance (MMR)**
Prior to LT contract	23.00-23.90	1.27-1.30
Under LT contract	20.49-20.87	1.40-1.42
Desired specification (1991)	23-28 max. (with a cut off limit of 22 per cent)	1.15-1.30

(ii) Broad basing of specifications thus led to import of inferior coal when compared to standards fixed in 1991 because SAIL now imported coal with lower VM and higher MMR. As the penalty clause of VM which envisaged penalty at the rate of US$ 0.50 per MT (prior to LT contract) was dispensed with, SAIL failed to recover penalty to the extent of US$ 5.364 million (Rs.19.02 crore) which it could have recovered under the

earlier stringent penalty clauses. The impact of deletion of the clause relating to size fraction could not be ascertained as the management did not make an analysis of the size either at the load port or discharge port. It is interesting to note that the suppliers under long term contract were the same Australian firms which were supplying coal to SAIL earlier also as per the rigid specification of 1991. At the same time they obtained higher prices from SAIL because the long term contract prices of SAIL were linked to JSM which were by and large higher than the prevalent market prices [refer para no. 5(a)]. Thus, further *broad basing of specifications, linking with JSM prices and reducing the penalty clauses tantamounts to undue benefits* being given to the coal suppliers.

SAIL also suffered because of relaxation of condition relating to moisture content from 10 per cent to 12 per cent. It is evident from the fact that in agreements made during 1995-96 to 1997-98 for similar coal brands, *RINL paid same price as that of SAIL* though moisture level was kept at 10 per cent maximum as against 12 per cent maximum by SAIL. *As a result SAIL had to bear extra expenditure of Rs.2.95 crore towards freight charges during 1995-96 to 1997-98 for carrying extra moisture weight of 50565 tonne.*

Similarly the short recovery of penalties as worked out by audit on account of relaxation of specifications and lowering of penalties relating to moisture and ash for the year 1995-96 to 1996-97 under long term contracts worked out to Rs.44.39 crore.

The Management stated (July 1998) that the Japanese Steel Mills (JSM) were the largest buyers of coking coal from Australia, as such the prices at which they negotiated with the suppliers were the most competitive rates. To get the benefits of the lower rates, SAIL decided to enter into the contracts for purchase of coking coal with the suppliers at the prices paid by JSM after broad basing its specifications to fall in line with JSM. The Management added that higher price would have been charged by suppliers if the penalties were more stringent.

The reply is based on a wrong presumption as suppliers were supplying coal even at *lower price as compared to JSM price when the specifications and penalties were more rigid as commented in para no.4(i).*

iii) In respect of the contract between M/s Arco Coal Australia Inc., and JSM covering sales from April 1995 to March 1998, a penalty of US $ 1.50 per tonne for each 1 per cent increase of ash over the guaranteed specification and US $ 0.70 per tonne for each 0.1 per cent increase in sulphur over guaranteed specification of coal, was leviable. As against this, SAIL provided penalty at the rate of US$ 1.25 per tonne for ash and US $ 0.63 per tonne for sulphur in its agreement dated 3 May 1995 covering same delivery period.

The Management stated (July 1998) that penalties were uniformly decided for long term contract as compared to different penalties for different types of coals by JSM.

The reply indicated that there were deviations while adopting the JSM system.

3. Extra expenditure/losses on spot purchases - Rs 19.50 crore.

a) During the period October 1992 to March 1995, SAIL procured 11.785 million tonne of imported coal on spot purchases by floating 7 global tenders. A test check of the records relating to prevailing market price and the price paid by SAIL showed that in 5 global tenders, the prevalent market prices of same brand of coal were lower than the prices paid by SAIL. It is interesting to note that RINL got a better price than SAIL from the same suppliers in respect of same brand/specification of coal during the period (June/July 1994) in 5 (five) cases as detailed in the following table.

(Price-US $ FOB(T)

SAIL				**RINL**		
Order dated July 1994				**Order dated June/July 1994**		
Sl. No	Name of Party	Brand	Cont.Price Qty (MT)	Cont Price	Diff.	Value
1.	M/s BHP	Goonyella-B (Blend)	46.06 (735414)	43.67(Hay Point) (Blend)	2.39	17,57,639
2.	M/s. MIM	Okay Creek	47.49 (235450)	45.29	2.20	5,17,990
3.	M/s. BHP	Barwan (Blend)	48.13 (339801)	44.62(Torrington) (Blend)	3..51	11,92,702
4.	M/s. Shell	German Creek(south)	47.85 (481648)	45.80 German Creek (VBA)	2.05	9,87,378
5.	M/s.Clutha	Woolondilly	46.90 (190222)	45.15	1.75	3,32,888
					Total	**US$4788597 Rs.14.36 crore**

Note : (i) Goonyella-B and Hay point; German Creek (south) and (VBA) and Barwan and Torrington coals have same guaranteed specifications.
(ii) Conversation rate taken as Rs.30 per US$.

It may be seen from above that the difference in prices paid by RINL and SAIL ranged between US$1.75 to US$3.51 per MT. Thus, the extra amount paid by SAIL on comparable quality of coal worked out to Rs.14.36 crore. *Interestingly in two cases the price paid by RINL was less than the JSM price during 1994.*

The average ruling monthly market price of hard coking coal during 1994-95 of Queensland Mines of Australia from where major supply was made confirming to SAIL's specifications in respect of 3 basic parameters (viz VM, Sulphur and Ash per cent) was US$45 per MT. But as is evident from the table above as against this prevailing price SAIL paid a price ranging from US$ 46.06 per MT to US$ 48.13 per MT.

SAIL was subscribing to various publications on coal, but n*either any analysis in regard to prevailing market price and its trend was put up to the Board nor did the Board ask for the current international prices at the time of finalising the orders. As against this in*

RINL there existed a practice of submitting to the Board comparative price of JSM and SAIL along with the price proposed for approval.

b) During the year 1994-95, it was decided to import a quantity of 5.5 million tonne of coking coal. To meet a part of the above requirement, the Company issued a global tender on 28 March 1994 for import of 2 million tonne of coking coal during the period from July 1994 to November 1994.

Since, there was increase in demand and extreme shortage of coal due to mines strike in Australia, Poland and USA, the Committee of Directors felt (15 June 1994) that tender in next two /three months time would result in further increase in price and recommended acceptance of offers of the suppliers upto Lowest (L) 8 ranking for a total quantity of 28.175 lakh tonne. Accordingly, the offer of suppliers ranked at L 9 and L 10 for supply of more than 1 lakh tonne each were not considered.

Subsequently another global tender was issued on 7 October 1994 for 2 million tonne of coking coal. The Committee of Directors observed that the prices received against the tender were higher ranging from US$7.06 to US$ 9.98 PMT on CIF evaluated basis as compared to SAIL's last global tender dated 28 March 1994 for the same brand.

Thus, by not considering the offer of L9 and L10 suppliers *for a quantity of 2.870 lakh tonne*, against tender of March 1994 *the Company incurred an additional expenditure of US$ 1.713 million equivalent to Rs.5.14 crore.*

The Management stated (July 1998) that except two parties, none of the other parties increased their offered quantities when SAIL requested them.

The reply of management is not tenable. SAIL should have considered the offers of L9 and L10 suppliers when the other parties refused to increase their offered quantities.

4. Deviation from Government guidelines and irregularities in long term contracts

SAIL decided in March 1995 to enter into long term contracts at JSM price to import 5 million tonne+/- 5 per cent of coking coal for a period of 3 years starting from April 1995 with an option to extend the same by another 2 years on the ground that spot tender prices obtained in March/October 1994 were higher by US $ 0.75 to US $ 11.45 per MT over JSM prices.

While concluding the long term contracts at JSM price, SAIL short listed the Australian coal suppliers who had supplied a minimum quantity of 5 lakh tonne of coking coal to SAIL in any of the preceeding 5 years for calling offers. The technical specifications were also broad based by revising the 1991 specifications and penalty clauses were also relaxed *as commented in para no 2(b).*

During the period from May 1995 to March 1998, SAIL imported 16.205 million tonne of coking coal. An examination of relevant papers revealed the following:

i) Analysis of prices of previous years showed that during 1989 to 1993, SAIL purchased coal at a price lower than JSM price in 16 cases and at a higher price in 6 cases as detailed in *Annexure.* This was the case when the SAIL specifications and penalty clauses were more rigid than JSM. However, due to strikes and other abnormal situation prevailing in Australia and other countries during 1994 as reported to Board, SAIL paid US $ 0.75 to US $ 11.45 per MT higher than JSM price in two spot tenders of March 1994 and October 1994. The coking *coal imported by RINL on spot purchases during this period was cheaper than SAIL by US$ 1.75 to US$ 3.51 per M.T.* As stated earlier [Para No.3 (a)] even during 1994 prices paid by RINL in respect of two contracts during July 1994 were lower than the JSM price. Therefore adopting JSM price based on experience of 1994 purchases without comparing with *earlier years prices and the price paid by other PSU under the same Ministry was not correct.*

ii) SAIL obtained certificates from Chartered Accountants in respect of prices paid by JSM. For comparison of the contracted price and other main terms and conditions of contract, SAIL could not obtain a copy of JSM contract with Australian suppliers to ascertain JSM price. Inter-Ministerial group while examining this aspect had suggested (February 1990) to obtain certificate from reputed chartered accountants who would have full access to the books of accounts of the suppliers to bring out net prices being paid by the JSM for various brands of coal. *This assumes importance in the context of the fact that JSM have equity participation in the Australian coal companies and reported discount of US $ 2 per MT over contracted/published price.*

The Management stated (July 1998) that Australian suppliers had informed SAIL that their agreements with JSM could not be given to them. However, the Chartered Accountants' certificate to SAIL certified the price, coal brand, specifications, year of supply, penalties applicable and the net price payable. The reply is not acceptable as the *declaration given by independent auditors was silent on other important commercial aspects of the contract such as payment terms, sample analysis, buyers' option, absolute*

maximum/minimum limit of specifications (i.e. size fraction, total moisture, volatile matter, ash, sulphur etc.) evaluation procedure and any other financial transactions with the company. It is also not known whether Chartered Accountants who had given the certificate had full *access to the books of accounts of suppliers as suggested by the Inter-Ministerial group.*

iii) The approval/clearance of Government for entering into long term contracts was obtained upto September 1997. No Government approval was obtained for 3.02 million tonne of coking coal imported after September 1997. Further the permission of import under long term contract was for 3 million tonne every year upto September 1997 but the actual import during 1995-96 to 1997-98 was between 5.05 million tonne and 6.54 million tonne.

The Management stated (July 1998) that the quantity of coking coal to be imported was included in the Memorandum of Understanding (MOU) signed with the Ministry of Steel.

The reply is not tenable as information contained in the MOU was silent about how much quantity of coal was to be imported under long term contract and spot purchases. Neither any specific approval was obtained for the quantity exceeding 3 million tonne per year nor for the coal imported after September, 1997 under long term contract.

(iv) SAIL had been issuing global tender notices for pre-qualifications of suppliers whenever there was a major revision in the specifications. The above procedures were not followed before entering into long term contract and the Company issued limited tender enquiries even though there was major revision in specifications and penalty provisions. Thus due to non-issuance of global tender, many suppliers of certain regions of Australia namely Queensland, New South Wales etc., who did not quote earlier due to rigid specifications, got eliminated.

The Management stated (July 1998) that it was decided to enter into long term contract with only old and reliable suppliers who had supplied a minimum quantity of 5 lakh tonne in any year during the past five calendar years.

The reply is not tenable as the system adopted by management prevented healthy competition from the suppliers to obtain the best price.

v) Procedures adopted by SAIL for short listing of parties by stipulating to offer a minimum quantity of 5 lakh tonne of coking coal in any of the preceeding 5 years against LT debarred five *numbers of established coal brands the prices of which were also lower.*

The Management stated (July 1998) that the parties were selected by SAIL based on certain criteria and not on coal brands. None of the parties were debarred from quoting for any of their coal brand.

The management's reply is not tenable as fixation of minimum offered quantity of 5 lakh tonne to SAIL, lacked justification as prior to LT contract even 1 lakh tonne of coal was purchased.

vi) SAIL Board initially approved on 8 March 1995 purchase of coal under long term contract at 70 per cent of the total requirement and balance under spot tender. Subsequently on 30 March 1995 the whole requirement was approved to be procured under long term contract. As a result, the benefit of lower *spot rates from small suppliers was not obtained by the Company.*

The Management stated (July 1998) that after entering into long term contract there were hardly any quantity left to be contracted under spot. Further the spot rates were found to be higher by US$ 0.75 to US$ 11.45 per MT as compared to JSM price during 1994-95 against two spot tenders of 28 March 1994 and 7 October 1994.

The above reply is not tenable as adopting JSM price on the basis of experience of last two tenders of 1994 was not correct as between 1990-91 to 1993-94 in all the spot purchase cases, the prices paid by SAIL were lower than the JSM price as detailed in Annexure. *It is interesting to note that the policy framed by SAIL in January 1999 provided for 80:20 ratio for procurement through LT contract and through spot tenders.*

vii) While entering into long term contract in 1995, SAIL restricted the analysis to load port only. *This was against the Government directions of June 1992 which envisaged analysis at both load port and discharge port.*

The Management stated (April 1998) that in case of discharge port analysis, the price quoted was higher by US $ 0.50 to US $ 1.00 per MT. Further the total penalty recovered due to difference between load port and discharge port analysis on an average was less than US $ 0.20 per MT.

However, the fact remains that the Government guidelines were not complied with and even Inter-Ministerial group felt strongly that SAIL should take special efforts to continue with load port and discharge port analysis practice particularly when new suppliers/brands of coals were involved. *Further, the importance of provision for discharge port analysis was recognised by SAIL in the new policy framed in January 1999.*

viii) In long term contract entered in 1989 the Board of Directors approved + 20 per cent buyers option. However in the long term contract of 1995 buyers option was kept as +/- 5 per cent. While extending the long term contract from 1998-99 the buyers option was revised to +/- 20 per cent. .Had the option been kept at +/- 20 per cent throughout, Company could have availed the benefit of prevailing market condition by exercising the option suitably as commented in p*ara no. 5(c).*

5. Additional expenditure on long term contracts - Rs.51.34 crore.

a) A comparison of the prices of hard coking coal paid by SAIL under long term contract with the price of same brand of hard coking coal traded during 1995-96 to 1997-98 with other buyers of Asian and other countries (viz. Algeria, Argentina, Brazil, China, Pakistan, United Kingdom etc.) under spot/contract compiled from the manual published by 'M/s Barlow Jonker Pty. Ltd.' revealed the following:-

[US$ FOB(T)]

		1995			1996			1997		
Name of Suppliers	Coal Brand	SAIL/ JSM price	Appx Market Price of '95	Diff.	SAIL/ JSM price	Appx Market Price of '96	Diff.	SAIL/ JSM price	Appx Market Price of 1997	Diff.
M/s.Arco	ARCO Blend	49.80	48.93	0.87	52.25	NA	NA	51.60	NA	NA
M/s Shell	German Creek	50.60	49.00 48.78 50.00	0.60	52.90	NA	NA	52.90	NA	NA
M/s BHP	GoonB (Blend)	50.96	49.14	1.82	53.63	52.09	1.54	53.85	NA	NA
M/s BHP	Barwan	50.85	49.80	1.05	53.73	50.60	3.13	53.64	NA	NA
M/s BHP	Malvarn (Blend)	50.90	48.75	2.15	53.40	NA	NA	53.70	NA	NA
M/s. MIM	Okay Creek	51.10	51.00 49.50 48.50	0.10	54.60	52.50 52.90	1.70	54.60	52.50	2.10

Note:- N.A.-Not Available. Difference has been worked out with the highest price.

The aforesaid analysis shows that price paid by SAIL/JSM was higher by US$ 0.10 to US$ 3.13 per MT of the same brand of coal sold in the market during the fiscal year 1995 to 1997.

Thus failure to avail the lower market price and entering into long term contract at JSM price without ascertaining its reasonability *resulted in extra expenditure of Rs. 36.27 crore in 10 cases.*

The Management stated (July 1998) that the prices in publications were indicative which could not be taken as bench mark and these only served as indicators/facilitators for understanding the market scenario.

The reply is not tenable as the Company did not submit *data base and its analysis to the Board of Directors which was essential for obtaining the best price in the International market.*

It is pertinent to mention that after it was pointed out in audit (February/April 1998) SAIL purchased coal (August 1998) on spot basis at a price lower by US $ 10.88 to US $ 12 per MT and suppliers further agreed to reduce their price by US $ 12 to US$ 19.50 per MT(September 1998) in comparison to JSM price. Further, SAIL also constituted a Committee of Directors(September 1998) to examine all aspects and strategies to bring down prices for coal imports on long term and spot basis for future procurement and to

frame policy for procurement of imported hard coking coal. The policy finalised by the Board (January 1999) covers by and large the points/aspects highlighted by Audit (viz. Prices so negotiated/settled not to exceed the bench mark of JSM prices, mix of spot agreement and LT contract, inclusion of Directors of RINL in Empowered Joint Committee for price fixation and introduction of discharge port analysis).

b) To cover up the shortfall for the year 1995-96, orders were placed in September 1995 for 1 lakh MT on M/s Shell and 4 lakh MT on M/s.Advance Coal at a rate of US $ 50.60 per MT. However, scrutiny of records revealed that on 31 July 1995 M/s.Glancore International AG (formally M/s March Rich & Co.) a regular supplier offered to supply 1.20 lakh MT during September 1995 to March 1996. SAIL took about 8 months to finalise the agreement with M/s.Glancore and could only place order for supply of 0.5 lakh tonne of coal at the rate of US$ 48.00 per MT by March 1996 though the offer of 1.20 lakh tonne was available before the decision was taken to place orders on M/s Shell and M/s Advance Coal. Delay in taking action had resulted in extra expenditure of Rs.0.61 crore (US $ 1,82,000).

The Management stated (July 1998) that the audit point was based on presumption that M/s. Glancore could have supplied entire quantity of 1.20 lakh tonne at US$ 48 per MT.

The reply is not acceptable as there was an offer of 1.20 lakh tonne and there was delay on the part of SAIL in finalising the order on which no comment had been given by the Management.

(c) In the long term contract of 1989 buyer's option was kept at + 20 per cent. During long term contract entered in 1995, the buyer's option was kept at +/- 5 per cent. This was, however, revised to +/- 20 per cent from 1998-99 under the extended period of LT. In this connection, it is pertinent to mention that the contract clause No. 1.1.2 of Annexure-I - 'price fixation' provided for as "*The price and specifications for the first delivery period i.e. April 1995 to March 1996 shall be fixed based on JSM settlement for fiscal 1995 delivery and shall be firm for the delivery of the agreement quantity for the first delivery period. Similary, price and specifications will be fixed for each subsequent delivery period based on JSM settlement for the corresponding Japanese fiscal year*"

Had the buyer's option been *kept at +/-20 per cent from 1995 itself, Company could have saved a sum of Rs.14.46 crore by exercising additional +/-15 per cent option to the contracted quantity during 1995-96 to 1997-98 as the prices changed in the subsequent delivery period.*

6. Payment of Agency commission

The instructions issued by Ministry of Finance in January 1989 regarding Indian agents of foreign supplier in matters of Government purchases inter-alia contained that it was not the policy of Government per se to look for, encourage or engage agents. Wherever it was possible to secure supplies and ensure after-sales-service etc. on reasonable terms without the intercession of agents, there was no need for engaging any such agents.

Though there was no need for after sales service in respect of import of coking coal, SAIL *allowed the foreign suppliers to engage Indian agents despite the above guidelines and paid Rs.5.64 crore towards agency commission during the period 1992-93 to January 1998.* SAIL however, decided only in September 1997 to take up the matter with the suppliers for discontinuance of agency arrangement.

It was observed that while taking up the matter with foreign suppliers for discontinuance of Indian agents, *no mention was made about corresponding reduction in the purchase price to the extent of agency commission.* As a result although the guidelines of Ministry of Finance ibid were complied with but no corresponding benefit in the price was obtained. Incidentally it may be mentioned that Law Department opined for the corresponding reduction in price but it was not insisted upon by the Company.

The Management stated (July 1998) that the opinion of the Law Department tentamounting to reduction of the JSM price had been noted. The agents were appointed by the foreign suppliers and not by SAIL and commission payable to them was only out of the FOB (T) price.

The reply is not convincing as the *Company did not even take up the matter regarding reduction in prices with the suppliers to the extent the commission was payable.*

7. Other Topics of interest

(a) One of the important factors for improved productivity and better techno economic indices of the steel plants was improved quality of bulk inputs such as iron ore, coal & fluxes. In view of this, it was proposed by SAIL Board in November 1987 to form a separate Directorate of Raw Material with the total responsibility for the vital function of planning, mining and supply of raw materials to the steel plants. While processing the above proposal SAIL Board stated as under:

"All over the world, the steel industry has considered it prudent to organise the raw material discipline on a centralised basis which has given them handsome dividends. It would be advantageous for SAIL also to adopt this philosophy".

However, it was observed that even though a separate Directorate of Raw Material was created in 1989, there were frequent changes after August 1995 in the administrative control of purchase of imported coal as detailed below:

Period	Administrative Control
August 1989 to July 1995	Director (Commercial), New Delhi.
August 1995 to January 1997	Director (RMD), Calcutta
February 1997 to August 1997	Director (Commercial), New Delhi
September 1997 to April 1998	Director (P & CP), New Delhi.
May 1998 to date	Director (Commercial) New Delhi

It may be seen that the responsibility of purchase of imported coking coal did not remain exclusively with Director (Raw Material Division) and changes were also made in the administrative control which showed the lack of appreciation of importance of such a vital item involving thousand of crore of rupees.

(b) During the period from 1994-95 to 1996-97, a quantity of 133384 tonne of imported coking coal was despatched to Durgapur Coke Oven Projects, a Government of West Bengal undertaking for conversion into coke and despatch to Bokaro Steel Plant though the facility was available in Plant. The conversion cost of the same worked out to Rs.9.40 crore in addition to the cost of transportation from Durgapur to Bokaro which was Rs.1.71 crore.

The Management stated (July 1998) that coal had to be despatched outside as the health of Coke Oven Batteries at Bokaro Steel Plant was bad and it was under massive repair.

The facts remains that due to poor planning of maintenance of *Coke Oven Batteries the company had to incur an extra expenditure of Rs.11.11 crore.*

(c) During 1995-96 to 1997-98, SAIL purchased coking coal from New Zealand at higher landed price in view of low ash and total moisture content though the coal had a high sulphur content of 0.9 per cent as against the desired level of 0.6 per cent.

In addition to higher price, the freight from New Zealand was higher by US $ 2-3 per MT compared to Australian coal. *The extra financial implication on purchase of imported New Zealand coal as compared to Australian coal worked out to US $ 4.629 million equivalent to Rs.16.41 crore.*

The Management stated (July 1998) that on FOB(T) evaluated basis New Zealand coal compared well with other sources of coal and due to high sulphur, it could not be used in isolation as replacement of Australian coal but had to be used as a blend.

The management reply is not tenable as the cost and freight evaluated price of New Zealand coal was higher than that of all other brands of coal imported.

(d) For despatch of imported coal to plants during monsoon from Haldia/Paradeep/Vizag Port it was decided by the Management to cover the wagons with polythene sheet on the plea that during monsoon, the despatch of coal in the open wagon absorbs water. The expenditure incurred to cover the coal despatched at Haldia port (1995-96 to 1997-98) and at Paradeep Port (1996-97 and 1997-98) worked out to Rs.2.42 crore and Rs.0.53 crore respectively. The decision to adopt the same system at Vizag port also from where the entire requirement of Bhilai Steel Plant met, was however, not implemented. Even in respect of Haldia port and Paradeep Port the decision lacked any justification since the coal was kept in the open at the ports/plants exposed to rain and sun. *Thus, use of polythene to cover the coal wagons resulted in an infructuous expenditure of Rs.2.95 crore at Haldia and Paradeep port.*

The Management stated (July 1998) that the coal beyond 8 per cent moisture invariably caused difficulty in handling at various coal conveying systems in steel plants and modifications were being carried out in the conveying systems and that from 1998-99 none of the steel plants would be requiring polythene covered wagons.

The reply of the management is not tenable since covering the coal during transit and storing it thereafter in the open subject to vagaries of nature did not solve the problem of excess moisture. The management would have to look for a more viable solution to the problem.

The above points were brought to the notice of the Management (April 1998), their reply received in July 1998 has been incorporated at appropriate places. The Review was issued to the Ministry in November 1998; their reply was awaited (May 1999).

ANNEXURE

Statement indicating the comperative Spot price of SAIL with JSM price

Price FOB US$/MT

YEAR	COAL BRAND	JSM PRICE	SAIL SPOT PRICE	SAIL AGT. NO.
1989-90	WOLLONDILI	49.90	49.31	65/89
1990-91	WOLLONDILI	52.30	51.21	85/90
1992-93	WOLLONDILI	50.80	50.40	96/92
1992-93	BARWAN	51.05	47.66	97/92
			48.56	100/92
1992-93	GOONYELLA-B	51.12	48.41	102/92
1992-93	MALVERN	51.10	48.38	104/92
1992-93	TAHMOOR	51.30	50.14	99/92
1993-94	WOLLONDILI	48.90	47.25	111/93
1993-94	BARWAN	48.05	47.56	107/93
1993-94	GOONYELLA-B	49.16	45.76	106/93
			45.05	117/93
1993-94	GERMAN CREEK	48.80	45.95	113/93
			46.40	121/93
1993-94	TAHMOOR	49.30	43.77	112/93
			44.27	120/93

YEAR	COAL BRAND	JSM PRICE	SAIL SPOT PRICE	SAIL AGT. NO.
1989-90	OAKY CREEK	50.40	51.42	68/89
1989-90	COLLINSVILLE	47.90	51.90	67/89
1989-90	TAHMOOR	50.40	50.75	69/89
1990-91	GOONYELLA-B	52.66	53.90	90/90
1990-91	OAKY CREEK	52.80	53.42	87/90
1990-91	COLLINSVILLE	50.30	51.02	86/90

Note:- After 1991 in all the above cases, the SAIL spot prices were lower as compared to JSM price.

CHAPTER 4 : UTILISATION OF AIRCRAFTS OWNED BY SAIL

INDEX

OVERVIEW

1. Introduction

Steel Authority of India Limited (SAIL) and its subsidiary Indian Iron & Steel Company Limited (IISCO) had a fleet of six aircrafts. One of the aircraft crashed on 2 February 1998.

[Para 1]

2. Non-adherence of Guidelines

(i) During the period 1992-93 to 1997-98 the percentage of non-entitled passengers to total passengers ranged between 34.82 and 56.36 whereas the percentage of exclusive flights for non-entitled persons to total flights was between 2.98 to 7.03.

(ii) In violation of the guidelines issued by SAIL in November 1994, a total number of 33 exclusive flights were arranged for spouses and dependents between 1992-93 to 1997-98.

(iii) In departure from the provisions of the supplementary rule issued by the Government of India, the Company's guidelines did not provide for taking approval from the next higher authority in case of use of aircraft by the spouses/dependants of the competent authority.

(iv) Journeys of 34 passengers comprising spouses/dependents of Managing Directors/Director of BOSP/RDCIS were treated as official.

[Para 2]

A Bhilai Steel Plant (BSP)

(i) In violation of the BSP's management circular dated 27 May 1991, passenger list/manifest was not maintained regularly and properly. The Management did not furnish flight plan though called for. As per DGCA's observations, the flight plan dated 2 February 1998 submitted by the Company indicated 'No' passenger, however, six passengers expired in the crash of the aircraft on the said date.

(ii) The passenger lists for the period 24 September 1996 to 9 February 1997 as made available to audit indicated 11 flights covering 18 hours 20 minutes whereas Aircraft Log Book No.3 indicated 137 flights covering 264 hours 55 minutes.

(iii) Passenger lists were not maintained regularly and properly. In the absence of passenger lists it is not clear how the T.A. claims of employees who travelled by BSP plane, were regulated as envisaged in the aforesaid circular of May 1991.

(iv) Management was asked (October 1998) to furnish detailed information relating to entitled/non-entitled passengers for the period 1992-93 to 1997-98. Neither the relevant records nor the desired information was furnished by the Management.

(v) Journey log book indicated 130 accompanied passengers in 55 flights conducted between 1 April 1992 and 24 January 1994 without indicating their status or entitlement.

(vi) A sum of Rs.0.31 lakh was only recovered as Ist class train fare in respect of journeys performed between December 1994 and January 1998 from accompanied dependents/spouse etc., of BSP Managing Director. In the absence of the passengers list, flight plan etc, the correctness or otherwise of the number of accompanied passengers and the sums recovered thereagainst could not be verified.

(vii) A sum of Rs. 35.96 lakh was outstanding against use of special aircrafts by various Central Ministers.

[Para 2 A]

B Bokaro Steel Plant (BOSP)

(i) As against 369 non-entitled accompanied passengers, recoveries of Ist class fare were made only in 224 cases. In 31 cases the journeys of the passenger (MD's spouse) were treated as 'official'.

(ii) On one occasion (24 February 1993) the aircraft was used by one Executive Director and his wife exclusively for availing Liberalised Leave Travel Concession (LLTC).

(iii) There were five cases of exclusive flights meant for medical check up of the spouse of the then MD, BOSP and for Deputy General Manager (Material Management) between 7 August 1993 and 19 October 1995.

[Para 2 B]

C Indian Iron & Steel Company Limited (IISCO)

As against 126 non-entitled accompanied passengers, recoveries were made only in 31 cases. The IISCO's aircraft was used mainly by executives of SAIL (holding company). The cost of such journeys was to the tune of Rs.1.71 crore during 1992-93 to 1997-98.

[Para 2 C]

3. Violation of Air safety regulations.

A Bhilai Steel Plant

The BSP's airfield was operative without formal annual renewal of a aerodrome license since 1992. Further as against the license for Visual Flight Rules (VFR) day operation,

the aerodrome was used on 42 and 9 occasions for night landings and night take-off respectively between 16 January 1995 and 27 June 1997.

The BSP's pilot flew the aircraft even when his license was suspended.

[Para 3 A]

B Bokaro Steel Plant

Due to carelessness of the Aircraft Maintenance Engineer, an accident of the aircraft occurred in July 1996. The Insurance Company made good the loss to the extent of Rs.16.25 lakh as against the final claim of Rs.54.34 lakh.

[Para 3 B]

C Others

The Regional Controller of Air Safety (RCA) conducted inspection of the air fields maintained by SAIL/IISCO. The RCA had indicated various lapses in his report dated 7 April 1998. On a number of occasions, BOSP aircraft departed during late hours of day and even during early hours of darkness although the aerodrome was not licensed for use during hours of darkness.

[Para 3 C]

4. Under-utilisation of aircrafts

The utilisation of the aircrafts to the available hours ranged between 1.49 per cent and 40.6 per cent during the period 1992-93 to 1997-98. The Committee constituted to review the performance of the aircrafts recommended disposal of three aircrafts (two of RDCIS, Ranchi and one of IISCO) but the same were not disposed of. The two aircrafts had been grounded i.e. one from October 1996 and other from July 1998 and still remained so (May 1999).

[Para 4]

5. Cost of flights/maintenance

The percentage of number of empty flights to that of total flights ranged between 14.46 to 49.60 (IISCO) and between 45.42 to 66.67 (RDCIS) during the period 1992-93 to 1997-98. The incidence of empty flights cost was to the tune of Rs.7.43 crore [Rs.1.68 crore (RDCIS), Rs.4.33 crore (BOSP) and Rs.1.42 crore (IISCO)]. Further, the incidence of extra expenditure due to excess consumption of fuel was to the extent of Rs.81.46 lakh.

[Para 5]

6. Inventory

An Auto Pilot control system procured by IISCO in October 1993 at a cost of Rs.16.42 lakh could not be commissioned mainly due to failure in obtaining approval of Director General Civil Aviation.

[Para 6]

1. Introduction

Steel Authority of India Limited (SAIL) and its subsidiary Indian Iron & Steel Company Limited (IISCO) had a fleet of six aircrafts to provide quick transport facility to senior executives of the Company and to meet emergent needs. The details of the aircrafts owned are as follows:

Sl.No.	Name of the Plant/Subsidiary Company	No. of aircrafts	Make
1.	Bhilai Steel Plant (BSP)	1	Beach Craft King Air F-90 (VT-ELZ) (Crashed on 2 February 1998).
2.	Bokaro Steel Plant (BOSP)	1	Beach Craft Super King Air B-200 (VT-EQD)
3.	Research & Development Centre for Iron & Steel (RDCIS), Ranchi	2	(i) Beach Craft Queen Air F-65 (VT-DOQ) (ii) Beach Craft Twin Bonanza D-50E (VT-DOR).
4.	Indian Iron & Steel Co. Ltd. (IISCO)	2	(i)Beach Craft Queen Air F-65 (VT-DMQ) (ii) Beach Craft Twin Bonanza D-50E (VT-DMR)

The following shortcoming/deficiencies in utilisation of aircrafts by SAIL and IISCO officials during the period from 1992-93 to 1997-98 were noticed in audit.

2. Non-adherence of Guidelines

The guidelines for use of aircraft were issued from time to time with the approval of Chief Executive of the Plant/Unit concerned where the aircraft was based. In November 1994, SAIL issued exhaustive guidelines with the approval of the Board of Directors. The said guidelines, inter-alia, envisages that dependants may be accompanied in the aircraft on payment of usual charges equivalent to 1st class rail fare between two stations with the approval of the competent authority provided there was space available in the aircraft.

The details of flights, numbers of passengers (entitled/non-entitled), exclusive flights etc. during the period from 1992-93 to 1997-98 are given in the table below:

		BOSP	RDCIS	IISCO
(a)	Total number of flights	2718	1989	2182
(b)	Total number of passengers	3987	2075	2312
	(i) Entitled	1740	987	1507
	(ii) Non-entitled	2247	1088	805
(c)	Percentage of non-entitled passengers to total passengers	56.36	52.43	34.82
(d)	No. of exclusive flights for non-entitled passengers	191	88	65
(e)	Percentage of non-entitled exclusive flights to total flights.	7.03	4.42	2.98
(f)	No. of exclusive flights for dependants and spouses.	26	1	6

It may be seen from the above that *percentage of non-entitled passengers to total passengers ranged between 34.82 and 56.36 whereas the percentage of exclusive flights for non-entitled passengers to total flights was between 2.98 and 7.03. Further, the average occupancy of seats per flight in all the aircrafts remained less than 2 persons (excluding the aircraft pertaining to Bhilai Steel Plant) as against 5 or 6 seats available per aircraft.* The information relating to BSP, though called for, was not furnished by the management

The guidelines issued in November 1994 prohibited the exclusive use of the aircraft for purposes other than official business of the Company by any individual or group or organisation except as specified in the guidelines. However, exclusive flights were arranged for the spouses, dependents etc. The following table gives details of flights undertaken for purposes other than official bussiness during the years 1992-93 to 1997-98:

	No. of flights			No. of passengers		
	BOSP	RDCIS	IISCO	BOSP	RDCIS	IISCO
Spouses and dependants	26	1	6	22	1	9
Executives below ED's rank	114	36	10	178	65	21
Others	51	51	49	68	125	134

The guidelines issued by SAIL from time to time did not envisage seeking of permission of the next higher authority in cases where the dependants happen to be the spouse or children of the prescribed 'Competent Authority' as envisaged in the note below to supplementary Rule 181-B on 'journey performed by air by a Government servant for each person not entitled to travel in that machine who may accompany him'. It was, however, also observed that *journeys of 34 passengers comprising spouses/dependants of Managing Directors/Director of BOSP/RDCIS were treated as official and one exclusive flight was also arranged for them Further at least 4 empty flights (26 flights and 22 passengers) were also conducted in the case of BOSP for spouses and dependants. Such details, though called for, were not furnished by BSP management.*

The Management stated (November 1998) that SAIL followed its own guidelines and hence the rule quoted by audit was not applicable.

The reply of the Management is not tenable as journeys of spouses/dependants were treated as official and exclusive flights were made for them. Had there been provision to seek permission from higher authority, such a situation could have been avoided. In order to *avoid such misuse in future, there is a need for insertion of a suitable provision.*

Some interesting cases noticed during audit in different plants are given in the following paragraphs.

A) Bhilai Steel Plant (BSP)

The BSP's aircraft was purchased from USA in December 1986 at a cost of Rs.2.80 crore. The said aircraft crashed on 2 February 1998. Examination of the records as made available by the plant and certain records available with the office of the Regional Controller of Air Safety, Calcutta revealed the following:

(i) The BSP's Aviation Department's circular dated 27 May 1991 envisages preparation of passenger manifest/list as early as possible so as to prepare flight plan and fuelling of the aeroplane. This manifest is the authority for *boarding the aeroplane, non-manifested persons are not, by regulations, permitted passage in any aeroplane.* The circular inter-alia envisaged that the list is to be used for *maintaining a record of persons carried aboard, assist claim section, follow up in the event of an accident, processing of insurance claims and reimbursement of Ist Class fare from non-entitled class/passengers not on duty.*

(a) The passengers manifest/list was not being maintained regularly and properly. Plant management's reply was silent as to when and by which authority the system envisaged in the aforesaid circular *was discontinued/modified.*

(b) It was noticed that the passenger lists were indeed printed in triplicate *during 1995-96 but not put to use as intended.* The passenger lists for the period 24 September 1996 to 9 February 1997 as made available to audit indicated 11 flights covering 18 hrs 20 mts whereas Aircraft Log Book No.3 indicated 137 flights covering 264 hrs 55 mts.

(c) In the absence of passenger lists it is not clear how the T.A. *claims of employees* who travelled by BSP plane, were *regulated as envisaged* in the aforesaid circular of May 1991.

(d) As per the said circular of May 1991, the passenger manifest duly approved by the competent authority was required to be indicated in the flight plan submitted to Air Traffic Control at the departure point to aid search and rescue in the event of misadventures. *Copies of flight plan though called for, were not furnished. However, the Director General Civil Aviation (DGCA) observed that the flight plan of 2 February 1998 of the accidented aircraft submitted prior to departure from Delhi indicated 'NO' passenger carried on board. However, there were six persons on board. The investigation also revealed serious lapses in the maintenance of Bhilai airfield, Nandini which was the destination of the accidented aircraft and in the operational control of SAIL. Pending satisfactory remedial action, aircraft operations to/from Bhilai airfield were suspended with immediate effect (February 1998).*

(e) In the aforesaid circular, the capacity of the aircraft was stated to be 5+2 whereas BSP management in their letter dated 16 June 1994 stated the capacity as six passengers and the same was indicated as 6+2 (crew) in the Internal Audit Report dated 4 February 1997.

(ii) The Management was asked (October 1998) to furnish detailed information relating to entitled/non-entitled passengers for the period 1992-93 to 1997-98. *Neither the relevant records nor the desired information was furnished by the Management.*

(a) The plant management produced journey log books No.1 & 2 and reported burning of journey *log book No.3 in the plane crash.* Examination of the journey log books for the period 1 April 1992 to 24 January 1994 revealed that *in 55 flights there were 130 accompanying passengers but their names/designations were not indicated.*

In absence of the identity of the accompanied passengers, the number of entitled persons or otherwise and also the amount recovered/recoverable could not be ascertained.

(b) The plant management gave the details of only *spouses/dependants* when details of actual passengers travelled with break-up of *entitled/non-entitled class were called for.* During the period between Ist December 1994 and 29 January 1998, a sum of Rs.0.31 lakh only was recovered from non-entitled users comprising spouses and dependants of M.D., BSP. However, *in absence of passenger list/flight plan, the correctness of the number/amount could not be verified in audit.*

(iii) The approval for flights was reported to be taken personally by Personal Secretary (PS to MD) from the Managing Director (MD) for the flights. Similarly, ex-post facto sanction for journeys performed was being obtained (March 1998) from MD by Chief Aviation Services.

The plant management *failed to produce any record showing that the flights and the passengers thereon had the approval of competent authority (MD).*

The Internal Audit report (4 February 1997) highlighted deficiencies in the maintenance of records, discrepancies in the recorded data, significantly the high idle-flying cost and the need for exploring the possibility of *availing the services of private air-taxies* as most of the flights of BSP aircraft were to the *major cities in the country for which commercial flights were available.*

The Management stated (November 1998) that required action would be kept in view after purchase of new aircraft and also posting of crew.

The fact remains that instructions contained in *circular of May 1991 issued by BSP relating to maintenance of certain vital records (passengers list/manifest, flight plan) were not observed. The management could not produce even the details of list of passengers. This indicated total absence of any kind of control exercised by the Aviation Wing.*

(iv) SAIL in reply to a unstarred question raised in Parliament in May 1994 on use of special aircraft by various Central Ministers etc., had indicated a financial burden of Rs.40.91 lakh for the aircraft used between 6 July 1991 and 14 January 1994. However, an amount of Rs.4.95 lakh had only been recovered and balance was still outstanding (May 1999).

The Management stated (July 1998) that in the light of guidelines dated December 1994, the officials got covered for travel without payment of propulsion cost.

The reply is not tenable as orders were made effective from a prospective date and the amount was recovered only in a few cases. Further, cross verification of the details given in the statement with the log book also showed the following discrepancies

(Rs. in lakh)

a)	Flight hours utilised but *not billed*	Rs.3.20
b)	Flight hours utilised but *wrongly billed*	Rs.0.69
c)	Flight hours utilised but *under billed*	Rs.1.25
d)	Flight hours utilised but *over billed*	Rs.1.94

B) Bokaro Steel Plant (BOSP)

i)(a) A total number of 369 passengers (spouses and dependants) of the SAIL executives accompanied in the aircraft, however, the recovery of first class rail fare was done only in the case of 224 passengers. The journeys of 31 passengers (MD's spouse) was treated as official and no amount was recovered in these cases.

(b) On one occasion (24 February 1993), the *aircraft was used by one Executive Director and his wife exclusively for availing Liberalised Leave Travel Concession (LLTC).*

(c) There were five cases of exclusive flights meant for medical check up of the spouse of the then MD, BOSP and one for Deputy General Manager (Material Management) between 7 August 1993 and 19 October 1995.

ii) In respect of aircraft journeys performed between 1 April 1992 and 22 January 1995, the approval of the competent authority was not obtained/available. The Management stated (October 1998) that since there was no codified procedure, post-facto approval for the journeys between 23 January 1995 and 28 March 1997 was obtained when pointed out by audit.

C) Indian Iron & Steel Company Limited (IISCO)

(i) As against 126 accompanied passengers (spouses and dependants) during the period 1992-93 to 1997-98 actual recovery was made only in case of 31 passengers. The Management stated (June 1996) that since the spouses of the Chief Executives travelled on official functions only, no bill was raised as per SAIL guidelines dated 28 November 1994.

There is, however, no provision in the said guidelines for waival of recovery in such cases.

(ii) The monetary incidence of use of IISCO (subsidiary company) aircrafts by executives of SAIL (holding company) was to the tune of Rs.1.71 crore.

3. Violation of air-safety regulations

A) Bhilai Steel Plant (BSP)

(i) The Nandini Airport of BSP was operative without annual renewal of licence since 1992. Although licence renewal fee was being deposited from year to year, *the plant management, failed to obtain renewal licence.*

(ii) An examination of the personal flying log book of the pilot revealed that the said airport was also *used for night landing operation and there were 42 night landings and 9 take off during the period 16 January 1995 to 27 June 1997.* The Director General Civil Aviation (DGCA) had mentioned in his preliminary investigation report (20 February 1998) that the said airport was *licensed for Visual Flight Rules (VFR) day operation only.*

The DGCA observed the following serious lapses in the maintenance of Bhilai Airfield at Nandini which was the destination of the aircraft which crashed on 2 February 1998 causing death of six passengers on board:

- 80 per cent of runway edge lights were not working

- runway end lights were not operational and did not have the red/green filters
- landing direction 'T' position found confusing
- revolving aerodrome beacon was not as per the required standards
- the windstock was not lighted
- the paved runway surface was found liberating stones

The plant management while noting the contents of the DGCA's letter of February 1998 had stated *(1 March 1998) that the DGCA's observations pertained specifically to night operations*. However, in reply to audit query regarding requisite licence for night landing operations, the plant management stated that the *said facility was in operation and was brought to the notice of the licencing authority by way of licence renewal applications submitted annually*. The examination of self inspection certificate issued on 8 August 1995 by the management showed no indication of permission to use aircraft for night landing.

The reply of the plant management was silent about the year since when the aerodrom was put to use in night operation. *The fact, however, remains that licence was for 'day operation' only and any night landings was a serious violation of the same.*

(iii) The flight *license of BSP's pilot* was temporarily *suspended from 29 June 1997 to 28 November 1997*. However, *the said pilot continued to fly BSP aircraft and undertook 42 flights during the said period. In fact on 29 and 30 June 1997 itself the pilot flew the BSP Aircraft from Delhi to Bhilai and from Bhilai to Calcutta respectively.*

(iv) Under the Indian Aircraft Act and rules made thereunder and related DGCA's instructions, aircrafts are required to undergo periodical maintenance and certifications. Such details for the years 1996-97 and 1997-98, though called for, were not furnished on the ground that Aviation Engineer retired on 30 April 1998.

B) Bokaro Steel Plant (BOSP)

Due to carelessness of Aircraft Maintenance Engineer (AME), the aircraft of BOSP met with an accident on 29 July 1996 on its own airstrip. The main reasons of the accident assigned by DGCA were as under :

- Centreline during taxying were not followed.
- Even after leaving of the centre line by the aircraft, the engine was not switched off.

In order to bring back the aircraft in working condition, BOSP had to incur an expenditure of Rs.22.20 lakh. In addition, the engine was also required to be sent for light overhauling to Canada for which expenditure was assessed as US$ 0.17 million (Rs.68.00 lakh). This could have been avoided had proper care been taken by the AME.

The Management stated (July 1998) that the reason of the accident as attributed by the DGCA was "Human Error". The Insurance Company had already made payment of Rs.16.25 lakh. The actual expenditure of light overhauling was to the tune of Rs.28.94 lakh (excluding air freight, customs duty etc.).

The expenditure of Rs.28.94 lakh indicated in the reply is not correct as the final claim submitted to the Insurance Company was for Rs.54.34 lakh. Besides, the aircraft remained grounded for more than 3 months due to this accident.

C) Others

Subsequent to crash of BSP's aircraft on 2 February 1998, the Regional Controller of Air Safety (RCA) conducted inspection of all the airfields of IISCO and SAIL plants and reported (7 April 1998) various lapses as detailed below:

- Non-availability of Aerodrome licence and Aerodrome manual.
- Non-adherence of the instructions of Ministry of Defence relating to telecommunication facility, demarcation of Aerodrome zone.
- Improper maintenance of signal square and wind sock
- Non-adherence of DGCA's instructions viz. movement register with incomplete details, lack of safety services, absence of proper fencing around aerodrome, need for periodical inspection of aerodrome.

'RCA's report in respect of BOSP, RSP aerodrome also indicated almost similar lapses as detailed above. Some of the other serious lapses were as under:

BOSP: Movement of aircraft to and from the aerodrome was unchecked and on a number of occasions aircraft had departed during the late hours of day and even during early hours of darkness although the aerodrome was not licensed for use during the hours of darkness i.e. between half an hour after sunset and half an hour before sun rise.

RSP: A Non-Directional Beacon (NDB) for frequency 384 Kilo Herth Zone (KHZ) has been provided at RSP for aircraft navigation. However, its range was reduced to 30 Nautical Miles (NM) as such RSP authorities were advised to take up the matter with the technical wing of Airport Authority of India for rectification of the fault.

4. Under-utilisation of Aircrafts

(i) In terms of Rule 42-A of the Aircraft manual issued by the Director General Civil Aviation (DGCA), a pilot cannot fly for more than 125 hours during any period of 30 consecutive days as such the maximum available hours per aircraft per annum works out to 1500 hours. The actual utilisation of the aircrafts during the years 1992-93 to 1997-98 was as under :

Name of the Units	Make of Aircraft	Availabl e Hrs	Year-wise utilisation hours/Percentage of utilisation					
			1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
RDCIS	1.VT DOQ	1500	282.55/18.86	246.15/16.42	87.25/5.83	23.35/1.57	50.00/3.33	22.25/1.49
	2.VT DOR	1500	401.00/26.73	229.35/15.31	143.35/9.57	24.30/1.63	80.35/5.37	Nil
BOSP	VT-EQD	1500	558.00/37.20	555.00/37.00	609.00/40.60	558.00/37.20	276.00/18.40	465.00/31.00
BSP	VT-ELZ	1500	578.15/38.58	523.05/34.86	581.35/38.76	365.20/24.48	492.37/32.82	327.15/26.18*
IISCO	1.VTDMR 2.VTDMQ	3000	279.25/9.31	404.35/13.48	360.55/12.03	330.00/11.00	246.30/8.22	93.35/3.12

*The available hours for the year 1997-98 in respect of BSP aircraft have proportionately been reduced to 1250 in place of 1500 as the plane crashed on 2 February 1998.

It may be seen that *utilisation of the RDCIS & IISCO aircrafts was very poor*. The percentage utilisation of two aircrafts by IISCO ranged between 3.12 and 13.48 during 1992-93 to 1997-98.

This implies that there was hardly any justification of continuing with two aircrafts by IISCO, a Company referred to Board for Industrial and Financial Reconstruction (BIFR). The two aircrafts i.e. VT-DOR (RDCIS) and VT-DMQ (IISCO) were not in operation during 1997-98 as spares could not be arranged.

The utilisation pattern of BOSP and BSP aircraft was almost similar (i.e. 40 per cent appx.) during 1992-93 to 1994-95. However, utilisation of BSP aircraft during 1995-96 and BOSP aircraft during 1996-97 came down to 24.48 per cent and 18.40 per cent respectively. If *empty flight hours (96.30 hours) and non-entitled exclusive flight hours (7.10 hours)* are excluded, the actual utilisation of BOSP aircraft came down to 11.48 per cent.

A *similar analysis could not be carried out by audit in respect of BSP as the required details were not furnished by the management.* Cross verification of BSP aircraft personal flying log book (No.3) revealed that *details of 95 flights covering 176 hours 5 minutes during the period 23 August 1995 to 26 June 1997 were not recorded in the Aircraft log book.*

The Management stated (July 1998) that available hours during 1992-93 to 1996-97 ranged between 1562 hours and 2000 hours in respect of 2 aircrafts of IISCO. As regards utilisation of RDCIS aircraft it was restricted to 500 hours because of annual overhaul. Further maximum utilisation of aircraft could not be achieved due to shortage of pilots during 1995 to 1997.

The contention of the management is not tenable as they had adopted different standards for available hours in respect of IISCO and RDCIS aircrafts.

(ii) A Committee constituted in November 1988 to review the performance of the aircrafts, recommended disposal of both aircrafts of RDCIS and one of IISCO. Though there was an offer (December 1995) for Rs.41 lakh being the highest one, the said aircrafts were not disposed of.

Had the same been disposed of, the Management could have saved the entire fixed expenditure of the Aviation Department besides saving interest due to cash inflow of Rs.41 lakh.

The Management stated (July 1998) that the main reason for deferment of disposal proposal was low offer. It added that in order to improve utilisation of aircraft, pilots in Aviation Wing of RDCIS had been posted and attempts were being made to keep the aircraft airworthy and in use.

The above contention is not tenable as *one aircraft of RDCIS had been grounded since 27 October 1996 and the other from 2 July 1998.*

5. Cost of flights/maintenance

(i) The details of flights, empty flights, available seats, actual occupancy and passenger in respect of the flights carried out by the SAIL aircrafts except BSP during the years 1992-93 to 1997-98 have been given in **Annexure-I.**

It may be seen therefrom that percentage of *empty flights of total flights ranged between 45.42 and 66.67 (RDCIS), 46 and 51 (BOSP) and 14.46 and 49.60 (IISCO).* The percentage of occupancy with reference to total availability of seats ranged between 12.86 and 88.08 (RDCIS), 17.93 and 24.75 (BOSP) and 10.75 and 32.14 (IISCO).

(ii) The details of year-wise fixed and variable expenditure of Aviation Department of SAIL (except BSP) and IISCO during 1992-93 to 1997-98 and related cost per passenger, cost per flight, cost per flight hour and empty flight cost are given in **Annexure-II.**

The analysis of the variable cost revealed the following:

- fixed expenditure in respect of one BOSP aircraft was substantially high as compared to fixed expenditure in respect of two aircrafts each of RDCIS and IISCO.
- cost per passenger, per flight and per flight hour had been on the increase mainly due to decrease in number of passenger, flights, flight hours etc. during the relevant years.
- the ratio of number of passengers to that of number of flights ranged between 0.64 & 1.24 (RDCIS), 1.41 & 1.73 (BOSP) and between 0.46 & 1.45 (IISCO).
- the ratio of empty flight hours to total flight hours ranged between 0.40 & 0.62 (RDCIS), 0.33 & 0.45 (BOSP) and between 0.22 & 0.44 (IISCO).
- Cost of empty flights was Rs.1.68 crore (RDCIS), Rs.4.33 crore (BOSP) and Rs.1.42 crore (IISCO).

(iii) The details of consumption norm and actual consumption there against in respect of the aircrafts of SAIL (except BSP) and of IISCO during the period 1992-93 to 1997-98 are given in **Annexure-III.**

It may be seen that there was an excess consumption of fuel by 598726 litres during the aforesaid period resulting in extra expenditure of Rs.81.46 lakh (Annexure-III). The extent of excess consumption during the years 1993-94 to 1996-97 in respect of BOSP aircraft was as high as 115 per cent of the normal consumption.

The Management stated (July 1998) that the fuel for these aircrafts was not available at Ranchi. Further for grounding and for taxying purposes, 10 to 15 per cent tolerance was

given. Taking into account the above factor, the actual consumption was only about 5 per cent higher than the normal consumption which was justifiable because of poor utilisation level of aircrafts due to non-availability of pilots. As regards Bokaro's aircraft it was stated that norms of consumption of fuel was variable depending on power setting with reference to altitude, temperature, sector, distance etc.

The contention of the Management is not tenable as there could not be two sets of norm for fuel consumption. The factors indicated might have been taken into account while fixing the norms. Further similar information from BSP, though called for, was not furnished.

(iv) The details of year-wise maintenance cost of the aircrafts during the period 1992-93 to 1997-98 and maintenance cost per flying hour are given in **Annexure-IV.** The analysis of maintenance cost shows the following :-

- the element of maintenance cost as adopted by different airbases of SAIL and IISCO were not uniform.
- the maintenance cost of aircraft engine (RDCIS) was substantially high during 1992-93 and 1993-94.
- the maintenance cost per flying hour (RDCIS) was substantially high during the year 1997-98. This was due to extremely low flying hours (22 hours approx.) during the period.
- "Other expenses" for the year 1992-93 in IISCO were substantially high as compared to other years.

6. Inventory

An Auto Pilot Control system procured by IISCO from USA in October 1993 at a cost of Rs.16.42 lakh could not be commissioned (July 1998).

The Management stated (July 1998) that as the aircraft was not grounded for major overhaul after procurement of the item, the installation was kept in abeyance.

The contention of the Management is not tenable as both the aircrafts remained grounded for a period of over three months at different spells after the procurement of the item. The fact is that the *system could not be commissioned mainly due to failure in obtaining approval from DGCA and Radio Engineer.*

The Review was issued to the Ministry in December 1998; their reply was awaited (May 1999).

(A.K.CHAKRABARTI)
Deputy Comptroller and Auditor General
cum Chairman Audit Board

New Delhi
Dated : 27 SEP 1999

Countersigned

(V.K.SHUNGLU)
Comptroller and Auditor General of India

New Delhi
Dated : 27 सितम्बर 1999

ANNEXURE-I

[refer para 5(i)]

Year	No. of flights	Empty Flights	Passen-ger flights	Total no. of Seats avail-able	Actual Occu-pancy	Percent-age of empty flight	Percentage of Occupancy with reference to availability of seat in passenger flights
RDCIS							
1992-93	808	367	441	1955	1002	45.42	51.25
1993-94	597	343	254	818	525	57.45	70.29
1994-95	324	190	134	319	281	58.64	88.08
1995-96	56	35	21	116	47	62.50	40.52
1996-97	176	92	84	359	154	52.27	42.90
1997-98	27	18	9	135	18	66.67	13.33
Bokaro							
1992-93	460	225	235	3220	797	49.00	24.75
1993-94	470	227	243	3290	663	48.00	20.15
1994.95	576	266	310	4032	835	46.00	20.71
1995-96	504	246	258	3528	723	49.00	20.49
1996-97	259	124	135	1813	325	48.00	17.93
1997-98	449	228	221	3142	644	51.00	20.49
IISCO							
1992-93	376	092	284	1715	510	24.46	29.74
1993-94	504	150	354	2256	583	29.76	25.84
1994-95	429	129	300	1932	621	30.06	32.14
1995-96	408	059	349	1749	188	14.46	10.75
1996-97	338	137	201	1643	301	40.53	18.32
1997-98	127	63	64	508	109	49.60	21.46

ANNEXURE-II

[refer para 5 (ii)]

				Total no. of		Cost per					
Year	Variable Expendi-ture	Fixed Expendi-ture	Total Expendi-ture	Pass e-nger	Flights	Flight Hours	Empty Flight hours	Passe-nger	Flight	Flight hours	Empty flight cost (Cost per flight hour x no. of empty flight hours.
	(Rs. in lakh)					(Hrs-Mts)					
RDCIS											
92-93	88.85	20.21	109.06	1002	808	683.55	274.30	10884	13498	15955	Rs.43.80 lakh
93-94	62.03	19.86	81.89	575	597	475.50	236.50	14291	13716	17222	Rs.40.79 lakh
94-95	30.89	20.31	51.20	281	324	231.00	119.25	18221	15802	22165	Rs.26.47 lakh
95-96	13.45	21.82	35.27	47	56	48.05	25.10	75043	62982	73403	Rs.18.47 lakh
96-97	9.28	19.38	28.66	154	176	129.10	61.40	18610	16284	21987	Rs.13.63 lakh
97-98	11.37	32.26	43.63	18	27	22.25	12.35	242389	161593	194690	Rs.24.47 lakh
										Total	Rs.167.63 lakh
BOKARO											
92-93	117.25	84.48	202.23	797	460	558	212	25374	43963	36242	Rs.76.83 lakh
93-94	122.99	111.38	234.37	663	470	555	199	35350	49866	42229	Rs.84.04 lakh
94-95	124.62	63.28	181.90	835	576	609	201	22503	32622	30854	Rs.62.02 lakh
95-96	112.43	58.18	170.61	732	504	558	245	23598	33851	30575	Rs.74.91 lakh
96-97	106.06	59.46	165.52	325	259	276	102	50923	63907	59971	Rs.61.17 lakh
97-98	96.60	68.64	165.24	644	449	465	209	25658	36802	35535	Rs.74.27 lakh
											Rs.433.24 lakh
HSCO											
92-93	7.63	118.54	126.17	510	376	279.25	60.40	24739	33555	45154	Rs.27.39 lakh
93-94	9.92	29.59	39.51	583	504	404.35	151.00	6777	7839	9766	Rs.14.75 lakh
94-95	8.32	34.28	42.60	621	429	360.00	139.00	6860	9930	11833	Rs.16.45 lakh
95-96	4.32	44.35	48.67	188	408	330.00	73.00	5888	11928	14748	Rs.10.77 lakh
96-97	7.85	54.40	62.25	301	338	246.30	92.55	20681	18417	25254	Rs.23.47 lakh
97-98	0.33	110.95	111.28	109	127	93.35	41.30	101789	87362	118914	Rs.49.35 lakh
										Total	Rs.142.18 lakh

ANNEXURE-III

VT-DOR RDCIS [refer para 5(iii)]

Year	Norm litre/hour	Hours Utilised	Fuel Consumed (litre)	Normal Consumption (litre)	Excess Consumption (litre)	Rate per litre (Rs.)	Cost (Rs. in lakh)
1.	2.	3.	4.	5.	6.	7.	8.
92-93	57	401.00	47341	45714	1627	14.12	0.23
93-94	57	229.35	29470	26172	3298	14.47	0.48
94-95	57	143.35	14088	16368	(-)2280	14.30	(-)0.33
95-96	57	24.30	3555	2793	762	14.54	0.11
96-97	57	80.35	10378	9186	1192	14.25	0.17
97-98	Grounded				-	-	-
					4599		**0.66**
VT-DOQ RDCIS							
92-93	65	282.55	49811	32262	17549	13.69	2.40
93-94	65	246.15	41191	32012	9179	14.35	1.32
94-95	65	87.25	20011	11365	8646	15.53	1.34
95-96	65	23.35	4455	3065	1390	14.97	0.21
96-97	65	50.00	7291	6500	791	16.05	0.13
97-98	65	22.25	2663	2913	-250	15.43	(-)0.04
					37305		**5.36**
VT-EQD BOSP							
92-93	75	558.00	176476	83700	92776	Rs.13.50 (Avg. rate)	70.17
93-94	75	555.00	182435	83250	99185		
94-95	75	609.05	167133	91350	74637		
95-96	75	558.00	196295	83700	112595		
96-97	75	276.00	93371	41400	51971		
97-98	75	465.00	158400	69750	88650		
				453150	**519814**		**70.17**
VT-DMR IISCO							
92-93	70	163.25	22555	22879	(-)324	12.60	(-)0.04
93-94	70	204.35	37507	28641	8866	13.90	1.23
94-95	70	179.00	31231	25060	6171	13.90	0.86
95-96	70	94.00	16869	13160	3709	15.42	0.57
96-97	70	212.40	30422	29774	648	15.38	0.10
97-98	70	93.35	14582	13101	1481	15.38	0.23
					20551		**2.95**
VT-DMQ							
92-93	60	116	19945	13920	6025	12.60	0.76
93-94	60	200	26059	24000	2059	13.90	0.29
94-95	60	181	22847	21720	1127	13.90	0.16
95-96	60	236	29843	28320	1523	15.42	0.23
96-97	60	33.50	9783	4060	5723	15.38	0.88
97-98	60	Grounded			-	-	-
					16457		**2.32**
			Grand	**Total**	**598726**		**81.46**

N.B. (1) The rate of fuel in respect of RDCIS has been worked out by dividing the total purchase cost of fuel by total fuel purchased.

(2) In respect of BOSP, the average rate per litre of fuel cost has been adopted.

(3) In respect of VT-DMR (IISCO) aircraft, the rate of 1996-97 has been adopted for the year 1997-98.

ANNEXURE-IV

[refer para 5 (iv)] **(Rs. In lakh)**

	92-93	93-94	94-95	95-96	96-97	97-98
RDCIS						
Aircraft Engine Maintenance	40.30	29.35	10.31	2.04	0.66	6.51
Propellers	0.62	0.43	0.21	0.04	0.12	0.02
Insurance	1.56	1.29	0.95	1.30	1.11	1.26
Salaries & Wages	27.01	23.03	21.82	24.40	18.42	24.83
Other Expenses	1.88	3.34	2.88	1.53	1.50	6.17
	71.37	57.44	36.17	29.31	21.81	38.79
Flying Hours	683.55	475.50	231.00	48.05	130.35	22.25
Maint.cost/Hours	10434	12067	15658	61063	16649	172400
IISCO						
Salaries & Wages	15.49	17.41	18.10	25.01	29.42	29.35
Stores & Spares	38.98	15.51	21.06	12.75	15.44	11.60
Other Expenses	74.37	12.97	8.56	6.59	9.45	9.32
	128.84	45.89	47.72	44.35	54.40	50.27
Flying Hours	280	410	360	358	246	94
Maint.cost/Hours	46014	11194	13255	12388	22114	53478
BOSP						
Cost of spares	35.80	41.01	24.40	25.56	46.56	18.23
Rep. & maint.	4.27	4.63	3.28	5.58	7.88	1.44
Engine Overhaul	44.64	44.40	48.72	44.64	22.08	37.20
Propeller	2.23	2.22	2.44	2.23	0.95	1.59
	86.94	92.26	85.68	78.01	77.47	58.56
Flying Hours	558	555	609	558	276	465
Maint.cost/Hours	15581	16623	14069	13980	28069	12594
BSP						
Salaries & Wages	7.17	8.96	10.99	13.28	15.85	21.47
Landing Charges	0.33	0.46	0.98	0.58	0.78	0.95
Rep. & Maint.	52.91	33.10	22.61	34.66	16.04	37.03
Insurance	3.87	3.36	3.21	7.50	5.98	3.85
Depreciation	55.72	11.29	11.29	11.29	6.91	19.47
	119.51	57.17	49.08	67.31	45.56	82.77
Flying Hours	578.15	523.05	581.35	365.20	492.35	327.15
Maint.cost/Hours	20676	10931	8433	18441	9253	25300