53

STEEL AUTHORITY OF INDIA LIMITED BHILAI STEEL PLANT

(MINISTRY OF STEEL)

COMMITTEE ON PUBLIC UNDERTAKINGS

1995-96

FIFTY-THIRD REPORT

TENTH LOK SABHA

SABHA SECRETARIAT
NEW DELHI

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STEEL AUTHORITY OF INDIA LIMITED BHILAI STEEL PLANT

(MINISTRY OF STEEL)

Presented to Lok Sabha on .....8.3.1996.
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LOK SABHA SECRETARIAT
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Page	Para	Line	For	Read
1	1.1	1	in	is
36	27	5	Co mitte are	Committee

CONTENTS

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(1995-96)

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INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to present the Report on their behalf, present this 53rd Report (Tenth Lok Sabha) on Steel Authority of India Limited—Bhilai Steel Plant.

2. The Committee's examination of the subject was based on the Report of the Comptroller & Auditor General of India (No. 11 of 1995).

3. The Committee took evidence of the representatives of Steel Authority of India Limited/Bhilai Steel Plant on 5th and 6th September, 1995 and the representatives of Ministry of Steel on 1st November, 1995.

4. The Committee considered and adopted the Report at their sitting held on 28th February, 1996.

5. The Committee wish to express their thanks to Ministry of Steel and Steel Authority of India Limited / Bhilai Steel Plant for placing before them the material and information they wanted in connection with examination of the subject. They also wish to thank in particular the representatives of the Ministry of Steel and Steel Authority of India Limited / Bhilai Steel Plant who appeared for evidence and assisted the Committee by placing their considered views before the Committee.

6. The Committee also place on record their appreciation for the assistance rendered by the Comptroller & Auditor General of India.

7. They would also like to place on record their sense of deep appreciation for the invaluable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

NEW DELHI;
March 7, 1996
Phalguna 17, 1917 (S)

KAMAL CHAUDHRY,
Chairman,
Committee on Public Undertakings.

C. *Cost and Time over-run*

1.4 The cost estimate of Rs. 937.70 crores was revised upward three times in March 1983 (Rs. 1600.5 crores), in January, 1987 (Rs. 2145.50 crores) and in January 1989 when the likely completion cost was assessed at Rs. 2288.63 crores (with a foreign exchange component of Rs. 241.73 crores). The approval of the Government for the revised estimate was still awaited. The Ministry of Steel informed Audit in April 1994 that the approval was held up for want of the final clearance from the Ministry of Environment and Forests. The project was completed in March 1988. The likely completion cost of Rs. 2288.63 crores was more by Rs. 1350.93 crores than the original Government approved cost and Rs. 1749.63 crores more than the DPR cost representing increase of 144% and 325% respecitvely. The cost overrun was attributed to increase in volume and scope of work (Rs. 293.59 crores) price escalation (Rs. 619.07 crores) and increase in duties/taxes (Rs. 162.30 crores) and other reasons (Rs. 275.97 crores). Further, the cost overrun was also due to the fact that several Indian Companies including PSUs who were implementing the project were at the early stage of abosrbing the new technology and with SAIL's limited experience in project management, the mid-course changes and adjustments experienced during the implementation were perhaps inevitable.

1.5 When asked about the rapid revision of cost, the Managing Director, BSP stated during evidence the following:-

> "It is a revision from the original to the completed cost. There are certain new items and change in scope. The midstream, there was a change in a number of unitst.... it has exceeded the Govt. approved cost."

1.6 In this connection when enquired whether the estimation has gone wrong, the Managing Director, BSP replied in the affirmative and stated that concrete is one of the factors which determines the cost. The figure originally was 1088282 cubic meter. It went up to 1848602 c.m. The difference is about 800,000 cubic meter. The estimate which was given earlier was without any detailed engineering.

1.7 When the Committee wanted to know whether the revised estimates have been approved by the Government, it was stated by the BSP in a post evidencne reply that the 1st and 2nd Revised Cost Estimate have been approved by Government. The completion cost of Rs. 2288.63 crores is with the Government. Pre-PIB meeting was held in July'92. For processing the case for PIB approval, Environmental clearance is a must. Final environmental clearance from Ministry of Environment & Forest is still awaited.

1.8 When the Ministry were asked on the same point, the Secretary, Ministry of Steel stated in the following manner:

> "...approval was given for the second one. For the third Revised Estimate, we cannot go to the P.I.B. Pre-PIB meetings with officials have been held. The procedure lays down that before it goes to them for approval, the environment clearance is a must. That is why it has been held up. Since it is only for Rs. 145 crores, I have no doubt that this will be put through and there should not be any problem once we get the environmental clearance.

1.9 When asked about the reasons for the delay in giving final clearance by the Ministry of Environment and Forests, it was stated by BSP in a post-evidence reply in the following manner:

> "When 4 MT Expansion scheme of BSP was cleared by Government in Feb. 78, obtaining environmental clearance was not a prerequisite. SAIL approached Ministry of Environment & Forest (MoEF) for clearance in 1986 in connection with the approval of Revised Cost Estimate (RCE). While MoEF was in the process of appraising the proposal environmentally, the project was completed & dedicated to the Nation in 1988. MoEF also has since completed the appraisal but formal clearance has not yet been issued. It was given to understand by MoEF that all units of BSP specially those covered by 4 MT Expansion Scheme need to conform to Pollution Emission norms before formal clearance is granted."

1.10 In this connection when the Committee desired to know as to how the clearance from the Ministry of Environment and Forests affect the approval of a project which has already been completed, the Secretary, Ministry of Steel stated during evidence as follows:

> "Sir, you are absolutely right that the clearance aspect has taken some time. This clearance was not needed earlier for the purpose of execution of the project. In fact when the second Revised Estimate was taken up in January, 1987 there was no insistence on the clearance by Environment Ministry. If you kindly see the third Revised Estimate, the cost is only around Rs. 145 crore more than the second estimate. This is really the completion cost of the project which is Rs. 2,288.63 crore. In April, 1987 the Environment Ministry has given a direction that enviornment clearance is a must for this kind of sanctioning of project. Since then we have regular interaction with the Environment Ministry."

1.11 According to the DPR, the expansion project was to be completed by June, 1977. However, while according approval, the Government indicated June, 1983 as the project completion date. This was shifted to December, 1984 and again to January, 1988. The main units were, however, completed by March 1988. In December, 1982, the Cabinet Committee on monitoring the execution and expeditious completion of major projects reviewed the progress of 4.0 million tonne expansion of BSP. The Committee expressed serious concern at the manner in which the project was progressing. The Committee also noted that there were serious complaints in regard to some of the critical equipments supplied to the plant and in particular with reference to power plant supplied by Bharat Heavy Electricals Limited (BHEL) and some of the items of plate mill supplied by Heavy Engineering Corporation (HEC). It was also mentioned that there had been delays in responding to the request of Bhilai for deputing experts and in taking measures for rectification of defects. The Committee observed that defective equipment involved wastage of national resources and delayed the development process.

1.12 However, during evidence, the reasons for the delay were stated by the Managing Director, BSP as follows:

> "One of the reasons for the delay is that of increase in the volume of work. Further, there was a delay of about 24 to 38 months in the supply of design/ equipment from the USSR. There was another delay in the supply of plant and equipment practically by all the indigenous manufacturers both the public sector as well as the private sector manufacturers."

1.13 It was also stated by the Managing Director of BSP that in some of the cases liquidated damages were claimed under that clause. Most of the agencies are the public sector agencies like the HEC and the HSCL.

1.14 In this connection, the Chairman, SAIL made the following observation during evidence:

> "The Committee may kindly consider one aspect. The point is we have paid the price for the delay. The SAIL has paid for the delay because of the loss it suffered on account of the delay. Probably, the price we paid for acquiring the indigenous expertise which we never had. We would have never imagined that the HEC could manufacture this sort of equipments. Now, we have the Companies like the HEC, MAMC, HSCL which could manufacture heavy Steel Plant equipments which before that period this country did not have that capability. We learnt it. We created the facility. Perhaps the SAIL paid the price for learning the process."

1.15 When enquired what reasons did the Ministry attribute to the delay, the Secretary, Ministry of Steel stated during evidence as below:

> "Coming to the question of delay, may I submit that we have had delay of a number of years. But the submission which I made in my initial statement was that it was a Soviet assisted project and at that time, if you would recall, the assistance was given at a low interest and that is why Bokaro and Bhilai plants come up well. They have delayed the plate mill for 24 months and similarly another very reputed huge equipment manufacturing organisation has delayed their equipments by 45 to 86 months. The delay of MAMC was from 22 to 44 months, BHEL was from 9 to 49 months and NGEF was from 8 to 19 months. The Ministry took up the matter at the level of the Cabinet Committee. The Cabinet Committee desired that a Technical Committee should be appointed to go into the depths of the matter to find out what are the reasons for the delay.
>
> So, a Technical Committee which was headed by Shri Satyapal, Advisor, Planning Commission at that time had gone into that question and pointed out that there was not enough clarity and precision in the contract and therefore, the contract should be improved. What we have done therefore is, immediately we have improved the contract. Now, the present contract of Bhilai and others have improved tremendously. Then, we have also introdued a large number of corrective measures after the report of the Technical Committee was given. One of the other reasons for the delay was

increase in volume of work. This is in addition to the original assessment of the work done regarding engineering and other site works. There was also a delay ranging between 6 to 9 months in receipt of technical project details for 3600 mm plate mill and continuous casting from the USSR. Then, there was delay in the supply of equipment from all the indigenous manufacturers/ suppliers. There was a delay due to mid-stream changes. These delays could have been perhaps better anticipated. But as it has turned out all the main players, on whom the complex project depended had delayed for various reasons. As a result, the delay took place. It is an inter- dependent system and it is depending on so many other factors. Those factors, unfortunately for us, did not work out well and therefore, the Ministry took the step of appointing a Technical Committee. They had gone into technical details and they had looked at things from specific angles. They said that the contract was wrong. We have now taken steps to introduce corrective measures. So, that is all I can say about the delay.

1.16 The Technical Committee set up in May'83 in pursuance of the directions of the Cabinet Committee observed (April' 84) that the contractual arrangements made by the implementing authorities lacked clarity and precision for which no responsibility could be fixed on any contractor. The slow progress of work at site was allowed to continue year after year without effective augmentation on the work front. With regard to supply of defective equipment by Heavy Engineering corporation, the Committee further added that the commercial practice of inspecting equipment before despatch was not adhered to by the Project authorities of BSP.

1.17 When asked about the reasons for not adhering to the commercial practice of inspecting equipments before despatch, the Managing Director, BSP stated during evidence the following:

"In this particular case, we did not have the responsibility of such inspection. The recorded reason given is that HEC was a leading manufacturer having all the detailed drawings available from the Soviet and also provided by us. They have their own sources. It was thought that it was basically their responsibility to manufacture equipments as per the detailed drawings provided by us and by the Russians and they will see to it that such final inspection will be done."

1.18 In this connection, the Secretary, Ministry of Steel stated the following:

"In the case of reputed public sector organisations like HEC, at that time, the pre-despatch inspection was not included as one of the terms because basically we trusted them; they were much better and, at that time, they were the leaders. So, it was a question of trust that we had placed in them."

(D) *Contract with HSCL*

1.19 The contract with Hindustan Steelworks Construction Limited (HSCL) stipulated periodical rates as well as quantum of concreting work to be done in each period. Due to non completion of work as per schedule by HSCL , the backlog in

concrete work and equipment erection work was got cleared at an extra expenditure of Rs. 717.48 lakhs by paying higher rates.

1.20 The Committee desired to know why higher rates were paid to HSCL though the contract stipulated periodical rates. The Chairman, SAIL stated during evidence as under:

> "HSCL used to be a subsidiary of SAIL earlier. Now, it is a separate undertaking under the Ministry of Steel. There are cases where HSCL does work within time and there are many cases where HSCL delays the work. There are a number of cases where the contract is signed with the HSCL for, let us say, 'X' price, by the time it is finished it has become 'XX' or 'XXX' and we had to pay that. Thus, in a way, SAIL has been subsidizing HSCL considerably. Whether we should continue or not is a decision you must take. As of now, we have no option. We continue to subsidise HSCL even today."

1.21 When asked why the contractual agency could not be held responsible for not completing the work in time, BSP in a postevidence reply stated that since the activities during the implementation of such large complex project are interlinked & interdependent, any delay in one area adversely affected many other areas. As such, it is not possible to fix responsibility on any particular agency.

1.22 In this connection, the Secretary, Ministry of Steel replied during evidence as follows:

> "We have been having review meetings regularly in the Ministry. It is a fact that there was delay on the part of HSCL. According to the monthly report, the total quantity of concrete work was estimated as 30,000 M3 per month during monsoon it was estimated as 24,000 M3 per month; in the case of structural fabrication it was 3,000 tonnes per months; in the case of structural erection it was 3,000 tonnes per month; in the case of equipment erection, it was 6,000 tonnes per month. But the actual monthly progress report shows that, since the commencement of the project, it has been below the assumptions made. It was mainly due to lack of mobilisation of resources, both equipment and manpower, by the principal construction agencies. The maximum coverage achieved was : concrete—22,753 M3 per months; structural fabrication—3,182 tonnes during 197879; structural erection—1,970 tonnes during 197879 and 198081; and equipment erection 3,356 tonnes per month during 198182. So there had been a delay on the part of HEC and even by HSCL."

(E) Contract for site clearance

1.23 As part of site clearance for the expansion project, a private contractor was engaged in December, 1972 for a total value of Rs. 2.23 crores. The contractor was required to remove 15 lakh cubic metre of open hearth muck and recover 1 lakh tonnes of scrap by December, 1973 and July, 1978 respectively. Extension of time were allowed keeping alive the provision of escalation stipulated in the contract. Removal of muck was completed in March, 1981 but the target (45,000 tonnes) for recovery of scrap could not be achieved. Audit was informed by the Company in

August, 1992 that on account of difficulties in finding out a suitable alternative agency and to avoid delay in fixing the new agency, extensions were granted and apprehending the stoppage of work, escalations were also allowed. The contract was finally terminated in July 1982. The amount of escalation paid to the contractor was Rs. 49.50 lakhs. The balance work was executed through another contractor at the risk and cost of the defaulting contractor from whom the net amount recoverable on various accounts worked out to Rs. 71.19 lakhs. Meanwhile the company went into liquidation and the civil suit has been set ex-parte against the official liquidator. The case has been placed in the list of ex-parte hearing and the company was stated to be pursuing the matter.

1.24 When asked as to how the contractor was selected and whether the past performance of the contractor was taken into account before awarding the contract, the Secretary, Ministry of Steel, stated during evidence the following:

> "He was selected through open tender, through advertisement made in all the leading Indian Newspapers. It was done on 12.6.1972. he was taken out of the eight parties who had responded to the tender—'responded' means they collected the tender document. But only two parties submitted their offers. The first party could not quote for scrap removal, so his tender was not found fit for consideration. The other party that was considered was having no direct experience but was considered because of having experience in handling transportation and removal of various materials."

1.25 In this connection, the Ministry of steel informed the Committee in a post-evidence reply that as per the commitment of the contractor, their equipement had been hired by M/s. Hecket Engg. Co. at Rourkela, during which they had studied fully the method of recovery of scraps followed by M/s. Heckett.

CHAPTER-II

PRODUCTION PERFORMANCE

A. *Production of Steel*

2.1 The production during the year 1978-79 to 1990-91 had been mostly lower then the rated capacity as well as annual targets. In the subsequent three years, however, the liquid steel production surpassed its rated capacity and the saleable steel (sum total of finished and semi-finished steel) production also increased and ranged from 98.45% (1991-92) to 105.77% (1993-94) of the rated capacity. During the year 1994-95, the actual production of ingot steel/solid steel was 40.51 lakh tonnes (*i.e.* 101.27% on the basis of capacity of 4 MT consisting of Steel Ingot 2.5 MT and Liquid Steel 1.5 MT) and of saleable steel was 34.09 lakh tonnes (*i.e.* 108.12% of rated capacity). Substantial increse in the production of saleable steel during 1991-92 to 1993-94 was due to production of semi- finished steel much in excess of the rated capacity. The actual production of saleable finished steel ranged from 82.54% (1992-93) to 84.19% (1993- 94) only during the said period. The actual production of saleable semi finished steel ranged from 132.73% to 207.23% during the same period.

2.2 When the Committee wanted to know the internal factors responsible for shortfall in production and the steps taken to improve the same, the Mg. Director, BSP stated the following during evidence:

> "Breakdown in the equipments and various bottlenecks in the production processes were identified.....Some replacements were done and this coupled with the equipment inspection yielded better results. As a result of this, during the last four or five years, we have kept on increasing the production. Internal factors were identified and various bottlenecks were removed which resulted in increased production. As a result of these cumulative effect, from 1987-88 onwards, there is a continuous effort made by the company to increase the production. The results itself show that the identification was correct."

2.3 When enquired about the efforts made at Government level to monitor the production of steel, the Secretary, Ministry of Steel, stated during evidence as below:

> "Sir, I would like to submit that production of saleable steel has gone up from 1552 thousand tonnes in 85-86 to 2207 thousand tonnes in 94-95 *i.e.* 2.2 million tonnes.....there is a periodic review both by the Secretary and

the Minister. These days we are very particular about the progress of the Steel plant because we do not have the resources to spare.

2.4 One of the major constraints being faced by the company was stated to be the shortages of indigenous coal. The Committee were informed by Chairman, SAIL during evidence that at present about 15 to 16 million tonnes of coal was needed of which 9 or 10 million tonnes of coal is obtained by SAIL from indigenous sources while the rest is imported. As the requirement of coal will increase within five or six years time to 19-20 million tonnes, more coal will have to be imported. But the infrastructure available at ports was inadequate to handle larger quantities of coal. Therefore, unless steps are taken to increase coking coal production in India, this constraint was expected to become worse. SAIL also wanted some of the undeveloped washeries and mines of Coal India Ltd. to be transferred to SAIL for development. Another constraint mentioned by SAIL has been the shortage of wagons for movement.

2.5 When asked whether the Ministry have taken any action to ensure adequate availability of desired quantity of coal, the Secretary, Ministry of Steel stated during evidence the following:

> "Sir, we are in close contact with them. You are already aware of the disaster in BCCL, Bihar. It is true that at one time we were also having a very difficult time but with close coordination with the Coal Ministry and the Railways, we have been trying to tide over this crisis. I would like to submit that the main problem is that whatever indigenous coal is there, there are competing demands from the power sector, steel sector and few other sectors. Now, they are very candid about it that they would like import to take place and at the moment we are importing in the range of 33 to 35 percent. That also needs a lot of coordination with the Surface Transport Ministry and the Railways. But I can assure you that we have consulted them at the ministerial level."

2.6 It was also stated by Chairman, SAIL during evidence that due to non-availability of adequate quantity of coking coal in the domestic sector, the quantum of imported coal is high.

2.7 When the Committee desired to know the percentage of imported coal used in BSP and SAIL in the last 5 years, the Ministry of Steel furnished through a Post-evidence reply the following information:

Period	%Imported Coal in the blend	
	In BSP	In SAIL
1990-91	40.9	33.9
1991-92	37.1	31.1
1992-93	37.9	29.6
1993-94	40.2	32.2
1994-95	45.3	36.3

2.8 When asked whether SAIL had approached the Ministry on the question of transfer of some of the undeveloped washeries and mines of Coal India Ltd. to SAIL,

the Secretary, Ministry of Steel stated during evidence:

> "Yes, Sir. Not only the CIL but the Ministry was also approached. Recently, they have cleared it. The formalities are being gone through. About four blocks they have cleared. They are Parbatpur, Mahal, Seetanala and Tasra. We will now put in investigation and try to bring it up."

2.9 In regard to the need for improving the port handling facilities, the witness stated:

> "Yes, certainly, there is a need for improving that. We have brought it to the notice of the Cabinet Secretariat. Only about three days back we had a detailed discussion in the Cabinet Secretariat which takes weekly meetings for looking after the infrastructure. We all attend the meetings to sort out our weekly problems. But last week it was only for a presentation on the ports about their problems. We have Haldia, Paradeep and Visakhapatnam ports. These are our three main ports. They are being further developed. In addition to other measures, private sector participation has also been made possible in a wide range of activities on the port for example setting up of container terminals etc. I would like to submit Sir that in Haldia we have been pursuing them and they have given us one Jetty. Second Jetty also becomes necessary that is Jetty number six."

2.10 Regarding the problem of wagon shortage, the Secretary, Ministry of Steel, stated during evidence the following:

> "We have had some problems with the Ministry of Surface Transport and with the Railways. There is power sector and there are so many other sectors like Fertilizers and Foodgrains, which receive priority from them....we have to coordinate with them at every level so that others are also not affected...compared to our projected requirement, there has been, on an average about 10% delay of receipt of wagons. Now I am not sure whether the wagon was actually not available at the loading point. That is one thing which has to be admitted... When I say delay in receipt of wagons by the plants, it could be for reasons at the end of the railways or could be for reasons that are not attributable to the railways. Often, plants may not be having enough wagons at that time. Then there are loading and unloading problems. So delays can also occur that way. But whenever the railways have some problems, they tell us that they have some problems. So as I said there is a consultative frame work on the basis of which we work together in close coordination."

B. *Coke Oven Batteries*

2.11 The rated capacity of coke oven Batteries for Blast Furnance grade coke before and after 4 MT stage was 25.11 lakh tonnes per annum (as adopted by Management against 27.57 lakh tonnes per annum as per DPR and 33.03 lakh tonnes per annum respectively. According to Audit average pushing of Ovens per day had been less than the capacity and fluctuated considerably indicating inconsistent performance and low production of coke which ranged between 75.20% (1988-89) and 91.16% (1978-79) of the adopted capacity during the period 1978-79 to 1993-94. Coking time had been higher than both the DPR as well as Norms Committee

timings during the entire period. Owing to higher coking time, the brick work of the batteries was damaged. The expenditure incurred on extensive repairs in connection therewith during the year 1980-81 to 1989- 90 was Rs. 22.63 crores.

2.12 The committee wanted to know the internal factors responsible for shortfall in production of ovens and higher coking time. The Managing Director, Bhilai Steel Plant stated the following during evidence:

> "Sir, during that period there was shortage of coal and as a result these batteries could not be operated to the full potential. What happens is that when there is a coal shortage, we cannot keep the ovens empty. Just to pervent the oven from damaging, we had to increase the coking time. So, that was the purpose."

2.13 It was also stated that during that period, the coking time was more than 20 hours although DPR norms for the same is 17 hrs. and that of the Norms Committee is 18.5 hrs. Coke is produced on basis of requirement of Blast Furnaces. When the requirement of Blast Furnaces is lower, the coal is kept in oven for a longer time.

2.14 When enquired about the view of the Ministry in this regard, the Secretary, Ministry of Steel stated the following:

> "When the production level is kept low, the coking period would be higher. Thus, the resultant damage was restricted to a large extent by controlling the technological regime. Presently, with proper planning, full potential-cum-production is available from 1990 onwards. There is an improvement in the hot metal production also, but still the production of coke is sometimes to be restricted on this count."

2.15 When the Committee wanted to know the reason for the Coking time not being reduced even after extensive repairs carried out during 1980-81 to 1989-90, the Secretary Ministry of Steel, stated during evidence as follows:

> "In 1989-90 it (the coke rate) was in the range of 692 kg. per tonne, it came down to 672 kg. per tonne in 1990-91, to 666 kg. per tonne in 1991-92, to 641 kg. per tonne in 1992-93 and to 642 kg. per tonne in 1993-94. Again it came down to a figure of 634 per tonne in 1994-95. So, we have been reducing it regularly it is the desired direction and we are trying our best."

C. *Blast Furnace*

2.16 The actual production of hot metal (including off-grade not metal) had always been less than the rated capacity (except in 1993-94). Production of off-grade hot metal ranged from 4.68% to 34.85% during 1987-88 to 1993-94 and major portion of this off-graded metal was charged in SMS. Shortfall in production was attributed by Management to lower Fe content in Iron Ore, higher ash in Coke, higher percentage of undersize Iron Ore and sinter etc., (1978-79 to 1984-85) and higher percentage of undersize iron ore (1986-87 and 1987-88).

2.17 However, according to Audit the actual Fe content in Iron Ore consumed in BFs during 1978-79 to 1984-85 had been more than the DPR Norms (6th BF Complex). The Plant has its own Captive sources for Iron Ore and sinter. Necessary

steps should, therefore, have been taken to ensure supply of Iron Ore and sinter of required size. The company informed Audit in August, 1992 that screening facilities were provided during modernisation / capital repairs to reduce the undersize fraction.

2.18 When enquired as to why the supply of the requried size of Iron Ore and Sinter was not ensured despite obtaining these materials from the Plant's own sources, the Managing Director, Bhilai Steel Plant, stated as below during evidence:

> "Supply is definitely under our control. Actually what happens is that it increases the transportation cost from the mine to the site, which is about 100 kms away. Earlier in the blast furnace we did not have the screening facility. Whatever has been conveyed, it has been charged into the furnaces. That was causing a lot of problems in the blast furnace. We have now put up facilities for screening of the ore as well as screening of the Sinter. That has improved the health of furnace, which is improving the productivity. Out of seven furnaces, we have put up this screening facility in six furnaces and the seventh furnance is due to be taken up next year, that is, 1996-97. This has met the change definitely in quality, quantity and the usage."

2.19 The DPR norms for blast furnance productivity in terms of t / m / d were 1.210 for BF Nos. 1,2 and 3; 1.128 for BF Nos. 4,5 and 6 and 1.286 for BF No. 7 commissioned in August, 1987. According to Audit, the productivity of BF had all along been less than DPR Norms (except in 1991-92 in BF No. 6 and 1992-93 and 1993-94 in the case of BFs 5,6 & 7). Lower productivity in BFs 1 to 6, according to the Management, was due to higher period of low blast & stoppages, erratic working of furnaces, higher fluctuation in quality of raw materials. In case of BF 7, it was due to a longer time taken for stabilisation after commissioning. However, inspite of drop in ash content (from 26.9% in 1978-79 to 21.9% in 1993-94) and slag rate (from 843 Kg/THM in 1978-79 to 642 in 1993-94) coke rate (from 567 Kg/THM in 1978-79 to 444 in 1993- 94), the productivity did not improve correspondingly. the overall furnance productivity year-wise was as given below:

Year	Productivity (T/MT3/4)
1978-79	0.90
1987-88	0.82
1988-89	0.96
1989-90	1.02
1990-91	1.07
1991-92	1.11
1992-93	1.18
1993-94	1.20

2.20 To a query as to when was the erratic working of the furnace first detected, the Managing Director of BSP stated during evidence as follows:

> "The DPR norm of the cumulative will take about 1.137. In 1985-86, we were operating at 0.98. In 1987-88, there was a fall in that figure of 0.82.

> At that time, we had unrest in our mining area. We had to face problems with the unions as well as the contractual unions. The quality and quantity of raw material deteriorated. One more effect of it, coupled with that, is utilisation. We solved the labour problem in the mines. The production as well as quality and quantity increased side by side by better operating practices. From that time, we took steps for modernisation. The utilisation deteriorated from 1985-86 year-wise and the productivity also dropped to 0.82. In 1987-88, it has come up to 0.96 in 1988-89 and from that point to 1.11 and 1.18 and 1.20. For the last two years, we have been achieving 1.20. For 1994- 95, it is 1.2 which is the highest achieved so far and it is above the norm."

2.21 It was also stated by the Managing Director that the defects have been rectified. Because of the utilisation factors, better inspection procedures and carrying out thorough repairs in time, one can see the improvements in the inputs and in the spares. He also claimed that they have introduced computerised work system, channeling records, fixing up life of a particular part so that in course of time the same can be replaced at a later stage.

2.22 When the Committee enquired to know the reasons for productivity not improving inspite of drop in ash content, slag rate and coke rate, the Managing Director, BSP stated the following during evidence:

> "Definitely there is an improvement in the productivity. Still we need to go further. If you take our submissions into consideration then to that extent the productivity has gone up. We are going up and we have reduced the losses. We hope this year we will finish more than 1.2T/cubic metre/day."

2.23 When asked whether the Government has analysed the reasons for productivity not improving inspite of drop in ash content and slag rate, the Secretary, Ministry of Steel stated in evidence as below:

> "We have been investigating into it, Sir. While doing the review we looked at the important norms and Blast Furnace productivity is certainly one of them. In addition to the reasons given, as they themselves have said, there are quite a few other factors and they are: fluctuation in raw material quality, operational constraints, like availability of slag and metal ladles, uninterrupted working of the Blast Furnaces are other parameters effecting productivity. For higher productivity, the furnace availability and its utilisation has to be higher and it should work without interruption."

2.24 A movable Throat Armour (MTA) valuing Rs.193 lakhs was commissioned in BF 6 in August, 1986 for better raw material distribution in order to improve hot metal production and reduce coke consumption. As the benefits expected of MTA could not be achieved, the Bell Less Top (BLT) charging system was introduced in BF 6 in place of MTA which, on removal therefrom, was proposed to be installed in BF 4. Various items worth Rs.54 lakhs were also purchased (March, 1989) for this purpose. However, the equipment (including items pruchased in March, 1989) was

rendered surplus as it was also decided (June, 1989) to bring BF 4 under BLT charging system. The equipment is yet to be disposed of (July 1995).

2.25 When asked as to what prompted the Management to instal a Movable Throat Armor (MTA) for Blast Furnace No. 6, the Managing Director, BSP stated the following during evidence:

> "In all the Blast Furnaces, technological improvement has taken place. For better distribution we have introduced Movable Throat Armors. The next channel of improvement has been where both the bells have been removed and done away with. In 1985, we have taken the decision of converting some of the Furnaces into Twin Hearth Furnaces in order to reduce the energy consumption and to increase productivity."

2.26 According to Audit, the widely accepted technological superiority of BLT charging system in Blast Furnance technology, as also the feasibility of its adoption both in the existing furnances and the new furnances (BF No.7) under construction was well known much before placement of order in October, 1985 for supply of MTA. The Committee desired to know the reasons for going in for MTA initially instead of BLT technology. The Managing Director stated during evidence that it was (MTA) a proven method. Consultant Mecon found that installation of MTA at Blast Furnaces would give a better distribution—the cheaper as well as the quicker distribution. That is why, this decision was taken so that they did not have to take longer shut down. However, the witness added that there was no denying the fact that the BLT system has been much more successful.

2.27 When enquired whether the MTA has been disposed of now, the Managing Director, Bhilai Steel Plant, stated during evidence as below:

> "The first attempt that we are making is to see if any of the steel plants can use it. We have given detailed drawings and so on to our steel plants at Rourkela. They have also come and inspected the equipment. They are examining if it can be used in their steel plants. In case it cannot be used because of some technical reasons, then we are planning to go in for an open tender and dispose it of at the price we get."

2.28 To a query by the Committee whether the Ministry have tried to find out why the BLT system was not initially introduced, the Secretary, Ministry of Steel, stated the following during evidence:

> "It was installed by the Management based on the study by MECON which is the leading technical organisation in the country. This was done because it gives better distribution of burden for higher productivity. I entirely agree that the BLT system is certainly a much better technology."

D. Steel Melting Shop (SMS)—I

2.29 The rated capacity of SMS-I with five 250 tonne Furnaces and five 500 tonne Furnaces is 25 lakh tonnes of steel ingots per annum as per DPR. Some of the Furnaces were subsequently converted into Twin Hearth Furnaces at a cost of

Rs. 74.51 cores in order to reduce the energy consumption and to increase productivity. Form June, 1992 onwards three 500 tonne Furnaces and three Twin Hearth Furnaces with a capacity of 27 lakh tonnes per annum have been in operation. According to the management, the capacity would, however, remain at 25 lakh tonnes till the matching facilities are created.

2.30 Asked to state why the matching facilities have not been created the Managing Director, BSP stated during evidence as follows:

> "We have taken a decision that we will not go up although Bhilai is having one of its best Open Hearth and Twin Hearth Operations. Gradually, we are now going to operate from the Open Hearth and the Twin Hearth to the basic oxygen Furnaces which is accepted all over the world. That is why, we are thinking of not investing any more in this area. So many places have to be modified. We will require a huge sum."

2.31 The Committee enquired as to what are the advantages of basic oxygen Furnances and whether any proposal in this regard has been submitted by the SAIL/ BSP to the Ministry of Steel. The Secretary, Ministry of Steel informed the Committee during evidence as follows:

> "There are various advantages. Faster is the process of steel making that is higher productivity. Second it is possible to make very low to high carbon steel with the advent of Ladle metallurgy. Third is the no external fuel requirement for steel making and low refractory consumption. These are the advantages. No proposal has yet come. Various options are being worked out."

2.32 The production of ingot steel as compared to the rated capacity during the period 1978-79 to 1993-94 ranged from 66.30% (1987-88) to 95.80% (1993-94). The shortfall in the production of ingot steel was attributed by the company to technological constraints in daily working of Open Hearth Furnaces, non achievement of full heat weight from 500 tonne Furnaces, increase in heat duration due to high silicon in hot metal etc. When the Committee desired to know the technical constraints and remedial action taken in this regard, the company stated in a written reply as follows:

> "Ageing of Open Hearth needs capital repairs. Alternatively installation of fourth Twin Hearth in place of these old open Hearth Furnaces has been proposed and submitted to management for sanction. However, a decision in this regard is awaited."

2.34 In this connection, the Managing Director BSP stated during evidence as follows:

> "Sir, we are still operating Open Hearth. These were introduced in the early 1 million tonne and 2.5 million tonnes stage. Gradually, their structure weakened. Now, they must be rectified almost from the furnance level. We have done one furnance number 8 with in-house resources. We have thoroughly over-hauled it. We have also taken certain steps in the case of

hot metal. One of the reasons mentioned is that slag is going along with hot metals and so on. These are the steps which Bhilai had taken progressively and as a result of that we are achieving higher production. In fact our target this year is that we must achieve 2.5 million tonnes."

2.35 The witness also informed that the production in SMS-I was 2.156 MT in 1991-92, 2.323 MT in 1992-93 2.395 MT in 1993-94 and 2.415 MT in 1994-95.

2.36 According to Audit the actual working hours of all the Furnaces during the years 1978-79 to 1993-94 had been less while hours under repairs had been more than the DPR norms. This was also attributed by the management to high silicon in the hot metal and the ageing of the Open Hearth Furnances. On being asked about the measures taken to reduce the hours spent on repairs. The Committee were informed by the company in a written reply that the steam pressure for automisation of liquid fuel to Twin Hearth Furnaces has been increased (12 atmospheric pressures) resulting in better furnace availability/roof life. Repairs of Twin Hearth Furnaces have gone down from 7/8 days to 5 day by introducing parallel working.

2.37 The extra expenditure due to excess metallic input (hot metal, iron scrap and steel scrap) during 1978-79 to 1993-94 was Rs. 662.98 crores and Rs. 296.58 crores as compared to DPR Norms Committee norms and as fixed by the management respectively. Similarly, there was an extra expenditure of Rs. 50.58 crores and Rs. 38.79 crores due to excess consumption of Ferro manganese during 1978-79 to 1989-90 as compared to Norms Committee norms and as fixed by the management respectively. Such higher metallic input was attributed by the management to (i) arising of very high volume of slag due to high silicon in hot metal (ii) use of bad quality scrap due to shortage of scrap (iii) metal spillage in transit (iv) increased demand of metallic input with the introduction of the new technology in the form of Twin Hearth Furnaces. Norms revised by the management after taking into account the increased demand of the new technology from 1986-87 onwards were also exceeded. The Committee wanted to know the measures taken to reduce the metallic input. SAIL informed the Committee in a note that the measures taken were (i) adherence to schedule of tapping, (ii) classification of scrap for Open Hearth and Twin Hearth Furnaces and (iii) minimising over oxidation of metal by adhering to techological discipline. It was also stated that the metallic input in 1990-91 was 1215.8 Kg. per tonne against a norm of 1173 Kg. per tonne. It has been reduced to 1159.2 Kg. per tonne against a norm of 1160 Kg. per tonne in 1994-95.

2.38 On being asked whether all the constraints have been overcome, the Managing Director BSP stated during evidence:

"We have overcome and we still could improve. We will strive to improve. If one thing has been achieved we try to go down."

E. *Steel Melting Shop-II*

2.39 Three oxygen blown converters with a capcity to produce 1.5 million tonne of liquid steel were commissioned between July, 1984 and August, 1985 at a cost of Rs. 111.15 crores to expand the capacity of the plant from 2.5 MT to 4.00 MT of

Steel ingot. The production at SMS-II during the last 5 years was as follows:

E. *Steel Melting Shop-II*

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Year	Rated capacity	Annual Target	Actual Production	% of actual production to	
				Rated Capacity	Annual Target
1990-91	15.00	15.00	14.37	95.80	95.80
1991-92	15.00	15.50	15.88	105.87	102.45
1992-93	15.00	16.00	16.19	107.93	101.19
1993-94	15.00	16.00	16.33	108.87	102.06
1994-95	15.00	16.00	16.36	109.07	102.25

2.40 It would be seen that the actual production during the years 1991-92 to 1993-94 was higher than the rated capacity and also annual target. According to Audit a scheme for expansion of SMS-II from 1.5 MT capacity to 1.7 MT capacity had also been undertaken by the company. The Committee desired to know why it had not been considered necessary to revise the rated capacity upwards. SAIL informed the Committee in a written reply that though the original scope of the said scheme was to enhance the capacity from 1.5 MT to 1.7 MT by investing Rs. 15.76 crores (base 1st quarter, 1989), finally only balancing facilities to remove the constraints for producing 1.5 MT were only implemented at a cost of Rs. 8.88 crores (base 3rd quarter 1993) As such the capacity of the shop remains at 1.5 MT of liquid steel, (1.425 MT of cast steel).

2.41 The Committee enquired whether a need was not felt to appoint some expert consultant to review the rated capacity. The Managing Director BSP assured the Committee during evidence:

> "We will consider that I want to assure the Committee that we are not trying to get bogged down."

F. *Continuous casting shop (CONCAST):*

2.42 The liquid Steel (1.5 million tonnes) produced in Convertor Shop (SMS-II) is to be converted into slabs (1.18 MT) and blooms (0.245 million tonnes) in the continuous Casting Shop set up at a cost of Rs. 222.22 crores under 4MT Expansion. The actual production in constinuous casting shop from 1985-86 onwards was as given below:

Year	Annual Target			Actual Production		
	Slabs	Blooms	Ingots	Slabs	Blooms	Ingots
1985-86	2.80	0.5	—	3.66	0.04	0.59
1986-87	6.10	1.50	—	5.42	0.72	0.36
1987-88	7.70	1.80	—	6.00	1.20	0.34
1988-89	10.27	2.08	—	8.93	1.56	0.31
1989-90	10.89	2.06	—	9 76	2.44	0.16
1990-91	11.45	2.56	—	10.46	3.03	0.03
1991-92	11.38	3.13	—	11.48	3.62	0.08
1992-93	11.78	3.50	—	11.74	3.62	0.07
1993-94	11.78	3.50	—	11.33	4.24	1.002
1994-95	12.90	3.90	—	12.09	4.17	0.601

2.43 The actual production of slabs and blooms during 1985-86 to 1994-95 had been less than the annual targets in all the years (except in 1985-86 and 1991-92) in case of slabs and from 1989-90 to 1994-95 in case of blooms. Out of tap to tap time of 70 minutes, the blowing time was only 18 minutes and the remaining 52 mintues were required for logistic between SMS-II and Continuous Casting. According to the Management, there were certain inherent deficiencies and problems in the process of Continous Casting, which had to be accepted.

2.44 During evidence of the representatives of Bhilai Steel Plant, it was stated that continuous casting is a question of matching, that means once the metal is tapped from BOF, it must arrive at the right time. It is a question of integrating both the continuous casting as well as BOF.

2.45 When enquired whether the Ministry were aware of the inherent deficiencies in continuous casting, the Secretary, Ministry of Steel, stated the following during evidence:

> "The experts were of the view that there were no inheremt deficiencies in the process of continuous casting. The level of production has also improved and from a level of 1.52 million tonnes in 1991-92, it has gone up to 1.64 million tonnes in 1994-95. When we had asked this question, they said this was a question of matching..... The lower production during the period 1986-87 to 1993-94 was mainly due to shortage of some the inputs. The remedial measures have been continuously taken up by the Management."

G. *Plate Mill*

2.46 The Plate Mill with a designed capacity of 9.50 lakhs tonnes of plates was commissioned between March, 1983 and December, 1985 at a cost of Rs. 752.05 crores under the 4 MT expansion scheme. According to Audit, the Mill never produced to its rated capacity. The capacity of the plate mill as well as the product mix was not in line with the demand pattern. The capacity of Rourkela Steel Plant (RSP) (1.50 lakhs tonnes) and TISCO (1.15 lakhs tonnes) to produce plate were also not taken into account while deciding on the capacity to be set up in BSP. The highest production over the years was only 94% of the rated capacity in 1985-86. The figures of production

from 1989-90 onwards were as follows:

Year	Rated capacity	Annual Target	Actual Production	% of actual production to Rated Capacity	% of actual production to Annual Target
1983-84	NA	1.00	0.12	—	12.00
1984-85	NA	2.60	0.50	—	19.23
1985-86	3.55	2.40	3.31	94	138
1986-87	5.70	4.95	4.33	76	87
1987-88	5.70	4.85	4.20	74	87
1988-89	9.50	6.00	6.22	65	104
1989-90	9.50	6.00	6.04	64	101
1990-91	9.50	7.40	6.51	68.53	87.97
1991-92	9.50	6.40	6.74	70.95	105.31
1992-93	9.50	6.70	6.60	69.47	98.51
1993-94	9.50	6.7	6.6	69	99
1994-95	9.5	6.75	6.69	70	99

2.47 According to the Ministry (April, 1991) it was fairly evident at the time of approving the expansion of BSP in February, 1978 that strictly on the basis of return on investment, the BSP expansion would not be a viable proposition. The creation of excess capacity of plate mill with reference to the changed demand pattern was known and acceptable risk. The Ministry also stated that the capacity of plate mill was based on the best available advice from the eminent agencies regarding future demand specially form ship building industry and these estimates underwent unanticipated change due to several factors.

2.48 When the Committee wanted to know as to why the capacity of plate mill was created in excess of the demand, plan, the Chairman, SAIL stated in evidence as follows:

> "Similar mill was already available in USSR. They had the same facility. There everything was already available. When this was created, the Government decided that they would take something which will be available much faster. So, the Government took a conscious decision that it should go ahead with it because the entire facility will be available there. so, this facility was created hoping that eventually the demand would improve in the country."

2.49 In this connection, when enquired whether any market survey has been done before approving creation of excess capacity, the Secretary, Ministry of Steel, stated the following during evidence:

> "The best of advice, as I mentioned, from such eminent agencies like National Council of Applied Economic Research, the planning Commission, the Consultants and others was considered. The Steering Group constituted by the Planning Commission worked out that there will be a substantial deficit of about one million tonne plates by end of 70s. The decision was arrived at jointly after detailed deliberations and even thickness demand projection

for 1978-79 was worked out and assessed by the Consultants and adopted by the Government. All that was done certainly needed a market survey. So, my answer to the question is that a market survey was done."

2.50 The Committee were informed in a written reply by BSP that in all the years, plates have been exported at a prices which not only covered the variable cost but also gave positive contribution of Rs. 185 crores and thereby added to the profitability of BSP.

2.51 The production of plates was also not in the line with DPR provisions and production plan based on the assessment made by Central Marketing Organisation (CMO), a unit of the company. To liquidate the accumulated stock in plates, the plant resorted to export of plates at a price lower than the cost of production during the period 1987-88 to 1994-95.

2.52 When the Committee enquired as to why the plates were exported at a price lower than the cost of production, the Chairman, SAIL stated the following inevidence:

> "There are several things to be looked at. It is a fact that we produce steel at a lesser cost. Even the international studies have thrown up the fact that the cost of steel of our two plants, that is, Bokaro and Bhilai, are of the lowest in the world. Here we are talking about the export price. Now it does keep on varying. The international prices is so volatile and we had been exporting up to 400 dollars and the export price in different markets are different. When you compare it, it depends upon the extent the price fluctuates in the international market. Sometimes we get a better margin and sometimes we get a lesser margin. But we do not look at the profit. We would like to remain in the export market with a certain amount of steel to be exported despite the fact that the contribution may be less. Even then we will continue to export that quantity of steel because export market is not something which we can switch off and switch on whenever we want. Secondly, we need foreign exchange for our imports. We would like to earn it for ourselves. Thirdly, we are producing our goods for exports and our employees become quality conscious, which is very important. For various reasons, we, as a policy, continue to export certain quantity of steel.

2.53 In this connection, when asked as to how far this practice was commercially prudent, the representatives of Ministry of Steel stated in evidence as below:

> "We had discussions with the plant management on this. What was explained to us....was that it was a better alternative to produce and export because we were covering at least the variable cost. The benefit obtained may not be of the same magnitude. So, if you make a comparison between the two, 'yes', an opportunity which could have been availed of was not fully availed of. But at least we have retrieved the situtation partly by selling in the export market where we were covering the variable cost."

CHAPTER III

RAW MATERIAL MANAGEMENT

A. *Iron Ore Mines*

3.1 The Bhilai Steel Plant has its own mechanised mines of Iron Ore at Rajhara and Dalli. The present requirement of iron ore for Bhilai Steel Plant for 4 MT stage is about 7.20 MT which is being met from Dalli Rajhara group of mines. However, the shortfal in availability of iron ore due to reduced production from Rajhara Mines is expected to be 2.75 MT by 2001-02 and 4.40 MT by 2004-05. In view of the decreasing trend of production from Rajhara Mines, a new Iron Ore deposit with more than 700 million tonnes of good quality Iron Ore at Rowghat (M.P.) was identified. It was proposed to develop the mine in a block of the deposit containing about 220 MT of iron ore. The Ministry of Steel and Mines approved the grant of mining lease to BSP for Rowghat deposit on 25.01.1991. As required by the Ministry of Environment and Forests, the bio-diversity study report was submitted to them on 7.2.1995 and the proposal was discussed by EAC on 31.5.1995. It was also stated that against the proposal of 1000 Hectare for Rowghat Project, an area of 2000 Hectare double degraded forest land has been identified for compensatory afforestation in Narayanpur Division itself. According to BSP, in view of the critical position of ore availability, an early clearance for the Rowghat project is very important. The Chairman, SAIL stated during evidence that if this iron-ore is not available, the Bhilai Steel Plant might become economically unviable.

3.2 Asked about the present status of the Rowghat project, the Committee were informed by SAIL in a post-evidence reply that presently the proposal was pending with Ministry of Environment and Forests. Chairman, SAIL requested Secretary, Ministry of Steel in August, 1995 to take up the matter with MOEF for clearance.

3.3 In this connection, the Secretary, Ministry of Steel stated during evidence:

> "Rowghat Project, as I submitted some time before, we have been taking up since a long time. During this year, the report on the bio-diversity study, which was started in 1993, came. I do not know what the experts said but after the report came, a meeting was taken by the Secretary Environment on our pleadings, where the experts were also invited. In that meeting, a lot of discussion took place. The Secretary stated that he felt that the committee of experts should again go and visit that place to have any further clarification, if they wish. Those experts were taken there some time in June and they came and submitted their report. I understand, this has also been processed.....it may now be on way to the Environment Minister. We have tried out best...I assure you that I have been chasing this case myself. In fact, Chairman SAIL has now taken a position that if Rowghat does not come through then the investment in Bhilai during the Ninth Plan will be meaningless."

B. *Limestone*

3.4 Limestone required by BSP for the production of steel is obtained from captive mines at Nandini. The actual production at Nandini Mechanised Mines during 1978-79 to 1992-93 ranged from 64.21% (1982-83) to 103.34% (1984-85) of the annual targets. Shortfall in production was attributed by the Management to the technological deficiencies and constraints in operation of Rail Transport system. According to Audit the actual production remained low even after replacement of Rail Transport by dumper transport from April 1987 onwards. The production figures of Nandini mechanised mines from 1986-87 onwards were as follows:—

Year	Annual Target as per APP of respective year (Tonnes)	Actual Production BF/SP grade (Tonnes)	% of actual production to target
1986-87	1214800	1068989	88.00
1987-88	1465800	1137949	77.63
1988-89	1430000	987965	69.09
1989-90	1117000	864256	77.37
1990-91	1028000	855534	83.22
1991-92	1150000	1116510	97.09
1992-93	1175000	1017794	86.62
1993-94	1083000	927695	85.66
1994-95	1000000	978327	97.83

3.5 In this connection, a representative of the Ministry stated during evidence as follows:

> "Originally, when this transport system was installed, the railway line system was used inside the mine perimeter and this railway line is owned by the Bhilai Steel Plant. Initially it was installed under the Russian assistance. Over a period of time, the utility and the longevity was coming to an end. When the question of replacement came, at that time we felt that the maintenance of the railway line inside the mine perimeter is difficult and it is better to go in for a dumper system. Prior to that, the dumpers which were available in India, according to the information given to us, were of smaller capacity. It was also felt that the railway line gets damaged quickly because of the movement of trucks. It is difficult to have movement inside the mines because the mine face keeps shifting....So, you have to have dumpers. From the loading points, the finished material is transported either by road or through the railway system...
>
> Your question was whether the production has gone up after 1987-88. The production is slightly higher and slightly lower sometimes. The question was whether to replace the railway equipment or the transport system altogether. Earlier, they were using the railway transport system within the

mine perimeter also. The mine face keeps shifting and so, you cannot use the railway track there. You must have a mobile system where you can clear the material. Therefore, dumpers were introduced. At the same time, at that stage only, bigger dumpers became available."

3.6 The manual mine was mechanised in the year 1986-87 at a cost of Rs. 1.06 crores. The production of OH/RMP grade limestone was, however, less than that envisaged in the scheme for modernisation. During 1981-82 to 1985-86 and in 1991-92 a quantity of 4.53 lakh tonnes of BF/SP grade (high silica) linestone was procured from outside source at an extra expenditure of Rs. 6.26 crores. A quantity of 28.15 lakh tonnes of low silica limestone was also procured during 1982-83 to 1993-94 at an extra expenditure of Rs. 179.16 crores, though the low silica limestone was to be procured from Sahapura (MP) under a mining lease obtained by BSP. The Management stated (April 1994) that Sahapura limestone was not suitable for consumption in Steel Melting Shop-II.

3.7 When enquired why quality aspect was not considered before taking over the mining lease, the BSP stated in a note that the requirement of low silica limestone started after introduction of L.D. process. Sahapura deposit was prospected for SMS grade limestone only where silica requirement is 3.5% maximum and not for low silica limestone (silica 1.5% maximum).

3.8 In this connection the Secretary of the Ministry stated in evidence as below:

"Sir, we had prospected the reserves and a total reserve of 9.64 million tonnes was established. This was considered sufficient for the BSP's requirement. Subsequently, areas adjoining at Nandini were also thoroughly examined and excepting a small deposit at Kharparia, no other deposit was found suitable for open hearth/RMP grade Limestone. Under the circumstances, there was no other alternative but to go for Sahapura Mines to meet the long-term requirement of open hearth/RMP Limestone of BSP....Sir, the quality aspect was looked at. As a I have just now submitted, it turned out to be not of that good quality. But since there had been no other go we had to stick to that."

3.9 The Crushing Plant at the Nandini mines situated outside the areas taken on mining lease. Consequently royalty was being paid on the entire quantity of ROM Ore raised from the mine and sent to Crushing Plant that is also on the rejects arising from crushing. During 1978-79 to 1993-94 the amount of royalty paid on rejects was Rs. 3.67 crores. Another Rs. 57.16 lakhs was stated to have been paid as royalty on rejects during 1994-95. The Ministry informed Audit in April, 1994 that the matter regarding obtaining an additonal mining lease was being pursued with the Ministry of Environment and Forests.

3.10 Asked about the latest position in the matter the Managing Director, Bhilai Steel Plant informed the Committee in evidence as follows:

> "We are in a tricky situation; we have got a Crushing Plant, we have mining lease, we take the material there and whatever chips are generated, they are accounted for. Somehow, we failed to convince the Ministry that we should not be charged royalty on that. To tell you frankly, earlier the royalty amount was very small; now the royalty amount is good. We have taken it up with the Government of Madhya Pradesh. They have taken it up with the Central Government. We are also pursuing the matter but we have not yet got solution to it."

C. *Services and Fuel*

3.11 In addition to raw materials and refractories, different units of the steel plant require various types of services and fuel for the production of iron and steel. Some of the important services required are steam, electricity, oxygen, compressed air, water and air blast. The fuel requirements comprise gases like coke oven gas and blast furnace gas and liquid fuel such as coal tar fuel (pitch creosote mixture), benzene, naptha and furnace oil. The actual consumption of services and fuel was more than the norms during the year 1978-79 to 1993-94 resulting in an extra expenditure of Rs. 26.25 crores in Coke Ovens, Rs. 36.41 crores in Blast Furnaces, Rs. 34.10 crores in Sintering Plants, Rs. 23.80 crores in Steel Melting Shop and Rs. 43.83 crores in Rolling Mills. According to the Management, the variation between the norms and the actual consumption was due to deviation from certain assumptions such as, quality of input materials, operating conditions etc., based on which norms were fixed. Further, services input were almost fixed in nature and hence, when the production was low the specific consumption of services was high.

3.12 When asked about the reason for not keeping the consumption of services and fuel within the norms, the Mg. Director, BSP stated in evidence as follows:

> ".....the productivity of the plant was at a low level. When we are expanding from 2.5 million tonnes to four million tonnes there will be certain difficulties. Once all the plants came on the commissioning schedule, we had to provide only a fixed amount of energy. After 1987-88 when all our facilities had come on commissioning schedule and went into commercial production, from then onwards every year our energy consumption has been dropping....."

3.13 In this connection when the Committee wanted to know what actions have been taken by the Plant Management, the Mg. Director, BSP, stated during evidence as follows:

> "Our attempt is to achieve the optimum level. Besides the new unit under expansion being inherently energy efficient, a number of fuel saving measures have been taken in the old units like introduction of microprocessor, combustion control system in soaking pits etc. In the last 5 months, we have achieved good results due to the steps which we have taken ..... like repair, renewal and modernisation. These steps have helped us to progress in the right direction."

3.14 To a query whether the Ministry at anytime analyzed the higher consumption of services and fuel, the Secretary, Ministry of Steel, stated during evidence as below:

> "We are doing periodical reviews of the performance. It is correct that consumption from 1978-79 to 1993-94 was more than the norms. During review meetings we have gone into this question. This was second phase of the plant expansion from 2.5 MT to 4 MT. During this period new additions of Coke Oven Battery No. 9, Sinter Machine No. 3 and 4, SP-I, Blast Furnace No. 7, twin hearth furnace, SMS-I LDCC route and plate mill were made. These units started producing fixed quantity as per the technological requirement. Thus, specific consumption of service and fuel was on the higher side till the production level of new units started coming down."

D. *Inventory*

3.15 An analysis made by the Management revealed that non-moving stores and spares worth Rs. 39.64 crores and surplus items worth Rs. 2.46 crores were held in stock as on 31.3.94. The stock of non-moving and surplus items was high and their disposal very slow. The stock of slow moving stores was also very high. Poor response from buyers and lower prices offered were stated to be the constraints in disposal of the surplus items.

3.16 When asked the reason for such high accumulation, the Mg. Director, BSP stated during evidence in the following manner:

> "As far as the system is concerned, we have got a very elaborate and well laid out procedure and system..... One thing is that a system does exist right from the starting. When an item is indented, it goes through different committees. If we compare this amount of Rs. 39.64 crore spent on what we call the non-moving items with the total inventory amounting to Rs. 236 crore, it comes to about 15-16%. These non-movable items also contain certain insurance items in that. When we go in for a new equipment or a new facility which we create, at that time, we float indent for certain parts. Sometimes, we put a value; sometimes, we see the list given by the supplier. We assume a certain life for a particular part or component and accordingly we keep the spares. Earlier, when we used to place orders like this, we used to have a lot of problems subsequently to get the imported components; before we had this liberalised system, we used to go through a whole lot of procedures to get these imported components. So, at that time, people had a tendency to build in along with the plant and machinery certain extra amount of spares. But we are gradually reducing it."

3.17 It was also stated during evidence that in 1994-95, items valued at Rs. 46.68 lakhs have been disposed of. This year, in the first five months, items to the tune of Rs. 35.34 lakh have been disposed of. The Mg. Director also stated that they have certain lacunae in their system and they have a very combersome procedure.

CHAPTER IV

MISCELLANEOUS

A. *Yield of By Products*

4.1 The actual yield of the principal by-products viz. crude tar, crude benzol and ammonium sulphate was generally lower than DPR Norms during 1978-79 to 1993-94 (except Crude Tar in 1979-80 and 1988-89 onwards). Lower yield of Coke Oven Gas due to low percentage of volatile matters in coal charged in Coke Ovens was stated to be the reason for the lower yield of by-products.

4.2 When asked what steps did the plant take to increase the average annual yield of the by-products, the Mg. Director, BSP stated the following during evidence:—

> "Whatever steps we took, they have resulted in considerable improvement in the yield. CO gas production has gone up to 297 cubic meter, Benzol production has gone upto 7.3 kg. and Amonia Sulphate production has gone to 10.1 kg. so, we have taken certain technologies steps we have improved the functioning of PBCC and we have improved the overall functioning through revamping and replacement of old equipment. We are using a lot of tar and benzol. They are creating pollution. We have improved the yield and we have taken care of the pollution problem also."

4.3 When enquired whether there was further scope for improving the production of by-products, the Secretary, Ministry of Steel, stated in the following manner during evidence:—

> "Certainly Sir, there is a scope for improving the production of by- products. The management has been taking steps to minimise leakage in batteries improving function of effluent treatment plant. We are also doing revamping and replacement of old equipments."

4.4 According to Audit the actual production of Sulphuric Acid during the years 1978-89 to 1993-94 ranged between 22436 tonnes (1982-83) and 37305 tonnes (1993-94) against the rated capacity of 45000 tonnes. According to the company, the Sulphuric Acid plant was operated at a low level to meet the requirements of Sulphuric Acid. However, the Ministry informed Audit in April, 1994 that the old Sulphuric Acid plant was being phased out.

4.5 When the Committee desired to know the reasons for lower production of Sulphuric Acid, the Secretary Ministry of Steel stated in evidence as follows:—

> Over a period of time the orders for Sulphuric Acid were on the lower side because the coal cabonisation was low. And subsequently, production of Ammonia for conversion to Ammonia Sulphate was also low. so the production had to be controlled resulting in lower capacity utilisation of the plant.

4.6 In this connection, the Managing Director, Bhilai Steel Plant stated during evidence as follows:—

> "The production of Sulphuric Acid Plant has shown improvement after we have taken action. It has gone upto 40,341 tonnes last year....."

4.7 Asked about the present position of phasing out of the old Sulphuric Acid plant, the witness stated:—

> "The tenders have already been finalised for phasing it out and we will be disposing it out now."

B. *Manpower Analysis*

4.8 The total manpower of Bhilai Steel Plant as on 1.4.1995 was 53620 as against 65189 as on 1.4.1986. However, according to Audit, the actual manpower in respect of Works and General Administration including Township and Medical facilities had always been more than the DPR provision. According to the company, sanctioned/ actual manpower was based on the studies made by the Industrial Engineering Department. The Management stated (April 1994) that reduction was achieved gradually and in a phased manner without closure or retrenchment.

4.9 In this connection, the Chairman, SAIL explained the policy of the company in the following manner during evidence:—

> "Sir, I would like to explain the policy of the Government here. Over a period of time, we used the industrial engineering studies to determine the manpowr..... we have changed our approach to say that over a period of time, we would assess the requirement and the Board of Directors would put a limit on the number and also on the intake, that is, what we call the manpower budgeting. So, it is not done on the basis of the studies made by the Industrial Engineering Department several years back. Also, the technology is changing; those studies conducted by the Industrial Engineering Department were based on the technologies available at that time. Therefore, those studies are no longer relevant today for any comparison because the technology has changed and the manpower also has changed. Therefore, we do not refer to the industrial engineering studies as the comparison is irrelevant..... The basic thing which I would say is that starting with a manpower of 61,460 in 1.4.1988 we have come down to 52,974 as on 1.8.1995 resulting in the reduction of 9,186 workers. Though there is a reduction in manpower, the production has been moderately sustained."

4.10 When the Committee wanted to know whether in view of the changing technology, should a study be made to ascertain the manpower requirement of BSP, the Secretary, Ministry of Steel stated during evidence as follows:—

> "The Bhilai Steel Plant is governed by the provisions of Madhya Pradesh Industrial Relations Act, 1960 under which it is obligatory on the part of

BSP to sign agreements with the recognised unions. In accordance with the agreements signed with the recognised union, that is, the Steel Workers Union and keeping in view the changing technologies, the total manpower requirement of BSP was settled at 61,367, which is much below the sanctioned manpower. Over the years, BSP has brought down its manpower strength which is even below the sanctioned manpower strength. I submit that we are achieving this in a peaceful manner..... we would like to retain the same position."

4.11 When enquired about the number of employees (category-wise) who left SAIL during the last three years Ministry of Steel stated in a post-evidence reply the following:—

Category	1992-93			1993-94			1994-95		
	Man-power	Left	%	Man-Power	Left	%	Man-Power	Left	%
Executives	19681	170	0.86	19746	195	0.98	20117	247	1.22
Non-executives	169955	60	0.03	168154	87	0.05	169389	77	0.04

4.12 When asked what measures are proposed to be taken to prevent the outflow of personnel from SAIL, the Ministry of Steel stated in a post-evidence reply as below:—

"As apparent from the data, provided above, the number of resignations has been marginal at around 0.03% to 1.22%. Nevertheless, some of the steps taken to motivate employees and prevent outflow of personnel from SAIL included.

Recent revision of wage and salary structure (w.e.f. 1.1.1992)

Induction of state-of-the art technology with the modernisation of steel plants inter-alia leading to better working conditions.

Communication exercises for bringing about better organisation culture. Stress on training and development of employees.

C. *Internal Audit*

4.13 Internal Audit Department of the Company was formed in 1962. GM (F&A) was in-charge of the Department. The size of the department was not considered adequate to cover the activities of a 4MT Steel Plant and the Statutory Auditors advised strengthening of internal audit wing as well as change in the reporting system. While Internal Audit was being gradually strengthened, no action has been taken to change reporting systems. The Internal Audit Department has not undertaken an appraisal of the performance of the Steel Plant as recommended by the Committee on Public Undertakings in their Fifteenth Report (4th Lok Sabha).

4.14 When the Committee desired to know why appraisal has not so far been undertaken by the Audit Deptt. as recommended by the Committee in their 15th

Report, the Managing Director, BSP stated as below in evidence:-

> "Sir, the Audit Group was transformed into a multi-disciplinary group with effect from 1993-94 by inducting technical personnel there along with the finance people. Now, the strength has gone up to 28 people there. During the period 1993-94 to 1995-96, appraisal of the main production units as per recommendations of the COPU has been taken up....."

4.15 In this connection, when the Ministry was asked why they did not insist on the appraisal of the performance of the plant earlier, as recommended by the Committee on Public Undertakings, the Secretary, Ministry of Steel stated in the following manner:—

> "It is a fact that the Multi-Disciplinary Unit was introduced in 1993- 94. It should have been introduced much earlier..... Regarding the direction the Ministry had given, I understand that based on this particular recommendation of the COPU, the Department of Public Enteprises did write to us at that time. It was quite way back in 1967-68. These kinds of letters come from the Department of Public Enterprises. We immediately instruct the competent authorities to take care of it because these are questions of Parliament. But I cannot lay my hands on all these things now. We do feel that Audit is a very important thing. There is a no question of neglecting the Audit."

D. *Short receipt of Coal*

4.16 The shortage of indigenous coal (both coking and non-coking) beyond the norms (5%) during 1984-85 to 1988-89 was to the extent of Rs. 10.57 crores. Shortage of coal was attributed by the Management to (i) underloading at loading points, (ii) pilferage enroute and (iii) tampering of weighbridge at loading points. There was also a shortage of 1,34,836.54 tonnes of imported coal valuing Rs. 22.58 crores during 1987-88 to 1991- 92.

4.17 During evidence, the Chairman, SAIL stated that it is the responsibility of Railways and Coal India to ensure the supply of the correct quantity of coal.

4.18 When the Committee wanted to know the views of the Ministry in this regard, the Secretary, Ministry of Steel stated as under during evidence:

> "I do not think what SAIL said is correct. It is not a correct appreciation of the matter. We do not agree with them.... We have been insisting that there must be a system of joint inspection between CIL and SAIL authorities. I am happy to inform that SAIL and CIL have agreed for joint inspection for quantity and quality. The joint inspection reports are signed by both the agencies."

PART - B

Recommendations / Conclusions of the Committee

1. Bhilai Steel Plant, one of the major units of SAIL, was set up in September, 1961 with Soviet assistance with a capacity of one million tonne capacity. The capacity of the plant was increased to 2.5 MT of ingot steel in October, 1967. The extension of Steel making capacity from 2.5 MT to 4 MT in BSP, was finally approved by Government in February, 1978 at an estimated cost of Rs. 937.70 crore. The Committee are astonished to find that the cost was revised upward thrice first in March, 1983 to Rs. 1600.50 crores, then in January, 1987 to Rs. 2145.50 crores and finally in January, 1989 when it was assessed at Rs. 2288.63 crores, representing an increase of 144% over the original Government approved cost. The Committee are not convinced with the argument that mid-course changes were inevitable as several Indian Companies implementing the project were at an early stage of absorbing the new technology. In their opinion, frequent revisions of cost estimation postulate indecisiveness and lack of far-sightedness on the part of Management. This is confirmed by BSP's own admission that the original estimates were made without any detailed engineering resulting in the cost estimates going wrong. The Committee, therefore, recommend that such flippant attitude on the part of Management should not be repeated in future and the company should ensure that cost estimation is done after detailed engineering by qualified professionals.

2. The Committee express serious concern over the delay in approval by Government to the final cost of the project. Although the project was completed in March, 1988 its completion cost of Rs. 2288.63 crores had not been approved till the completion of examination of the subject by the Committee. This is reportedly due to want of final clearance from the Ministry of Environment and Forests. The Committee cannot but expect an early clearance for a project which has already been completed.

3. The Committee are distressed to observe the long delay in completion of the project. The original completion date indicated by Government while according approval to the project was June, 1983. This was shifted to December, 1984 and again to January, 1988 but the main units were completed only by March, 1988. The company as well as the Ministry attributed the delay in supply of equipments and drawings and change in scope etc. But the Technical Committee set up in pursuance of the directions of the Cabinet Committee observed in April, 1984 that even the contractual arrangements made by the implementing authorities lacked clarity and precision for which no responsibility could be fixed on any contractor. Not only that, slow progress of work at site was allowed to continue year after year without effective augmentation on the work front. The commercial practice of inspecting equipment before despatch was also not adhered to by the Project Authorities in regard to equipment supplied by heavy Engineering Corporation merely on the presumption that supply of equipment as per the detailed drawings was the responsibility of HEC. Ultimately, the equipment turned out to be defective. The committee strongly deprecate this apathetic attitude of the management in not handling things in a professional

manner. They, therefore, recommend that in future, whenever such schemes are to be undertaken, integrated project management should be ensured for smooth operation of the project.

4. The contract with Hindustan Steelworks Construction Limited stipulated periodical rates as well as quantum of concreting work to be done in each period. Due to non-completion of work as per schedule by HSCL, the backlog in concrete work and equipment erection work was got cleared at an extra expenditure of Rs. 7.17 crores by paying higher rates. It is strange to observe that BSP management were unable to fix responsibility on HSCL for not completing the work as per the contract even though it might be a complex interdependent project. They recommended that in future while entering contracts-SAIL should be more vigilant in guarding its commercial interests.

5. The committee are concerned to note that the private contractor, who was engaged to remove 15 lakh CM of open hearth muck and recover 1 lakh tonnes of scrap by December, 1993 and July, 1978 respectively, could not stick to the target and the balance work was executed through another contractor at the risk and cost of the defaulting contractor. The Committee are perturbed to note that this contractor, though selected through Open Tender, had haridy any direct experience in the field and their equipment had merely been hired by another company at Rourkela. What is worse, extensions were granted and escalations were also allowed to this contractor apprehending stopping to work. The Company has since gone into liquidation. The Committee desire that the circumstances leading to the award of contract to a party having no experience in the field should be enquired into and responsibility fixed. They would also like to be informed of the outcome of the case relating to the recovery of Rs. 71.19 lakhs from the defaulting party.

6. The production of steel during the years 1978-79 to 1990-91 at Bhilai had been mostly lower than the rated capacity as well as annual targets. Breakdown in the equipments and various bottlenecks in the production processes were stated to be the internal factors responsible for such shortfall. These bottlenecks are now stated to have been removed which resulted in increased production. During the year 1994-95, the actual production of ingot steel/solid steel was 40.51 lakh tonnes i.e. 101.27% on the basis of capacity of 4 MT and that of saleable steel was 34.09 lakh tonnes i.e. 108.12% of the rated capacity. The committee fail to understand why the factors which have now been identified for lower production could not be identified all these years so that remedial steps could be initiated in time and shortfall in production avoided. They desire that the matter should be looked into with a view to find out as to when the factors responsible for lower production were identified and when the remedial measures were initiated and the Committee be apprised of the same.

7. The Committee are informed that one of the major constraints being faced by the company is shortage of indigenous coal of the desired quality resulting in the increse of imported Coal. In fact the percentage of imported coal used at Bhilai Steel Plant increased from 37.1 percent in 1991-92 to 45.3 percent in 1994-95. The Committee desire that Government should take all possible steps

to ensure sufficient availability of quality coal of BSP from domestic sources. The proposed transfer of some of the undeveloped washeries of Coal India Limited to SAIL should be finalised within three months under intimation to the Committee. At the same time, the port handling facilities also need to be improved/ augmented in respect of imported coal.

8. The Committee have also been given to understand that BSP has been facing some problems regarding availability of wagons. It appears the prevailing system of coordination in this regard with the Railways is not adequate. The Committee, therefore, recommend that a permanent machinery should be set up involving the representatives of Ministries of Steel and Railways and SAIL to coordinate and ensure adequate availability of wagons to Steel Plants.

9. The Committee are unhappy to observe that the average pushing of ovens per day in the Coke Oven Batteries had been less than the capacity during the period 1978-79 to 1993-94. The production of coke during this period ranged between 75.20% to 91.16% of the capacity adopted by the management which was itself lower than the DPR norms. The Committee also note that the coking time had been higher than both the DPR norms (17 hrs) as well as Norms Committee norms (18.5 hrs.) during the entire period. The reason advanced for the shortfall in production of coke and higher coking time was stated to be on account of shortage of coal due to which the batteries could not be operated to full potential and coking time had to be kept high. What the Committee are pained to point out is that the higher coking time caused damages to the brick work of the batteries necessitating an expenditure of Rs. 22.63 crores on extensive repairs. The committee urge that all out efforts should be made by better planning to achieve optimum production at the coke oven batteries and to save the ovens from damages.

10. The Committee regret to observe that the actual production of hot metal (including off-grade hot metal) had always been less than the rated capacity except in 1993-94. Production of off-grade hot metal also ranged from 4.68% to 34.85% during 1987-88 to 1993-94. In the Committee's opinion many of the factors attributed for shortfall in production such as higher percentage of undersize iron ore and sinter etc. could easily have been overcome since the plant has its own captive sources for iron ore and sinter. The Committee wonder why the screening facilities which were provided during modernisation/capital repairs to reduce the under size fraction could not be provided earlier. They depricate such lackadaisical approach of the company towards constraints which can be overcome by a little foresight and expect that such lapses should not be allowed to recur in future.

11. The productivity of Blast Furnace has generally been less than the DPR norms. The Committee are astonished to find that inspite of drop in the ash content, slag rate and coke rate, the productivity did not improve correspondingly. Admittedly there is still scope for further improvement. They have no doubt that this situation could have been avoided had the Management taken proper remedial steps at the right time. They would now recommend that steps should be taken expeditiously to overcome the operational constraints and to ensure higher utilisation of the BF and its uninterrupted working.

12. On the recommendations of MECON, the consultants, a Movable Throat Armor (MTA) valuing Rs. 1.93 crores was commissioned in Blast Furnace 6 in August, 1986 for better raw material distribution in order to improve hot metal production in order to reduce coke consumption. As the benefits expected of MTA could not be achieved, the Bell Less Top (BLT) charging system was introduced in BF6. The Committee wonder why the company went in for MTA system when the widely accepted technological superiority of BLT charging system in blast furnance technology as well as the feasibility of its adoption in furnances of BSP was well known much before placement of order for supply of MTA. That the MTA system on removal from BF6 could not be installed in BF4 also goes to show that the decision to instal the MTA system was not correct. What further dismays the Committee is the fact though the decisions to instal the BLT system was taken as far back as in the year 1989, efforts to dispose of MTA system have yet to be initiated. A final decision in this regard, it was stated, would be taken when efforts to use it in other steel plants fail to materialize. The Committee deplore such inordinate delays in decision making and desire that in case MTA system cannot be used in any of the plants, it should be disposed of expeditiously alongwith the additional equipment purchased in 1989. The Committee would also like to be apprised in the matter.

13. The rated capacity of steel melting shop-I (SMS-I) is 25 lakhs tonnes of steel ingots per annum as per DPR. The production of ingot steel ranged from 86.30% to 96.6% of the rated capacity during the period 1978-79 to 1994-95. From June, 1990 onwards, three 500 tonnes Furnances and three twin Hearth Furnances with a capacity of 27 lakh tonnes per annum have been in operation. But the committee have been informed that the rated capacity has not yet been increased since the company first proposes to go over to the basic Oxygen Furnance which have several advantages like faster processes of steel making and capability to produce very low to high carbon steel etc. The Committee desire that the economics of introduction of basic oxygen furnances should be worked out and a final decision in this regard should be taken within three months so that at least the amount to be spent on overhauling of old open hearth furnances or their replacement by Twin Hearth Furnances could be avoided.

14. During the period 1978-79 to 1993-94, the extra expenditure due to excess metallic input (hot metal, iron scrap and steel scrap) as compared to norms fixed by the management was Rs. 296.58 crores. Similarly, the extra expenditure on excess consumption of Ferro Manganese during this period was Rs. 38.79 crores. Although the metallic input is stated to have been brought down to some extent recently, the committee need hardly emphasise the need for taking stringent measures to bring the metallic input as well as the consumption of Ferro Manganese within norms to save the extra expenditure on this account.

15. A scheme to enhance the capacity of steel melting shop-II from 1.5 MT to 1.7 MT was undertaken involving an investment of Rs. 15.76 crores. However, the capacity of the shop remained at 1.5 MT certainly because only the balancing facilities were implemented at a cost of Rs. 8.88 crores. However, the Committee observe that the production at SMS-II has been 105.87%, 107.93% 108.87%

and 109.07% during the years 1991-92 to 1994-95 respectively of the rated capacity. They therefore, desire that as assured by the Managing Director during evidence, an expert consultant should be appointed to review the rated capacity of SMS-II and the Committee apprised of the outcome thereof.

16. The liquid steel produced in converter shop (SMS-II) is converted into slabs and blooms in the continuous casting shop. The Committee regret to note that the actual production of slabs has been less than the annual targets during all the years except in 1985-86 and 1991-92. Out of tap to tap time of 70 minutes, the blowing time was only 18 minutes and the remaining 52 minutes were required for logistic between SMS-II and continuous casting. This appears to be too high to the Committee and needs to be reduced. The Committee are also unhappy with the contention of the management that there were certain inherent deficiencies in the process of continuous casting, while the experts were of the view that there were no inherent deficiencies in the process. They, therefore, desire that BSP should take remedial measures without further loss of time to achieve the right matching in the continuous casting shop and increase the production.

17. The Committee are perturbed to observe that the Plate Mill commissioned between March, 1983 and December, 1985 at a cost of Rs. 752.05 crores never produced to its rated capacity of 9.50 lakh tonnes. Although the capacity of the mill was stated to be based on the best available advice from eminent agencies regarding future demand no proper market survey appears to have been done.

Even the capacity of Rourkela Steel Plant and TISCO to produce Plates was not taken into account. The Committee cannot but deplore the fact that the product mix was not in line with the demand pattern. Not only that, The production of plates was not in line with DPR provisions and production plan based on the assessment made by Central Marketing Organisation (CMO), a unit of the company. All this resulted into export of plates at a price lower than the cost of production. Although, the exports are stated to have covered the variable cost and made a positive contribution, the Committee are of the opinion that the capacity was not created realistically after a proper market survey. The Committee suggest that BSP should make all-out efforts now to improve the sales for optimum utilisation of the existing capacity.

18. In view of the decreasing trend of production from Rajhara Mines, a new iron ore deposit with more than 700 million tonnes of good quality iron ore at Rawghat (MP) was identified. The Committee are constrained to find that the mining lease which was granted by the Ministry of Steel and Mines in 1991 has not so far been approved by the MOEF. In the light of the critical position of ore availability, the Committee strongly recommend that Government should ensure clearance of the Rawghat mines within 3 months under intimation to the Committee.

19. The production of limestone at Nandini captive mines ranged from 64.21% to 103.34% of annual targets during the period 1978-79 to 1993-94. The Committee are not convinced with the contention that the shortfall in production

was due to constraints in operation of Rail Transport System since the production remained low even after replacement of rail transport by dumper transport from April, 1987 onwards. They would, therefore, recommend that the technological deficiencies in the working of mines must be identified and remedial action taken.

20. The Committee express their displeasure over the procurement of 28.15 lakh tonnes of low silica limestone during 1982-83 to 1993-94 at an extra expenditure of Rs. 179.16 crores, though low silica limestone was to be procured from Sahapura under a mining lease obtained by BSP. It is strange that the Sahapura mine was only prospected for SMS grade limestone and not for low silica limestone required for consumption in Steel Melting Shop-II. The Committee at this stage can only recommend that in future, keeping in view the requirements of the plant, thorough prospecting should be done before obtaining any mining lease.

21. The Committee are astonished to find that BSP has to pay royalty on even the rejects arising from crushing. Since the crushing plant at Nandini is situated outside the mining lease of BSP, the entire quantity of ROM ore raised from the mine has, therefore, to be sent to crushing plant. During 1978-79 to 1994-95, the amount of royalty paid on rejects was Rs. 4.24 crores. The Committee desire that the matter should be taken up at the highest level so that the royalty paid by BSP on rejects is reimbursed to it. For future also, either the BSP should be exempted from payment of royalty on rejects or additional mining lease should be given to it. The Committee would like to be informed of the final outcome in the matter.

22. In addition to raw materials and refractories different units of the steel plant require various types of services and fuel for the production of iron and steel. The Committee are perturbed to note that the actual consumption of some of these services and fuel in BSP has been more than the norms fixed, resulting in an extra expenditure of as much as Rs. 164.39 crores in different units during the period 1978-79 to 1993-94. The explanation for the specific consumption of services and fuel being higher due to construction and commissioning of additional units under expansion programme can no longer be valid since all the units were commissioned by 1988. The Committee, therefore, need hardly emphasise that concerted efforts should be made to bring the consumption of services and fuel within norms.

23. The Committee are perturbed to note that non-moving stores and spares worth Rs. 39.64 crores and surplus items worth Rs. 2.46 crores were stockpiled in the company, as on 31 March, 1994. What was more distressing to note is the slow disposal of these inventory items. Although items worth Rs. 46.68 lakhs were disposed of during 1994-95, the system admittedly is cumbersome and has certain lacunae. They, therefore, urge that the system of disposal of surplus items should be simplified and the company should make all-out effort to bring the inventory to the minimum level.

24. The actual yield of principal by-products viz. crude tar, crude benezol and ammonium sulphate has been generally lower than DPR norms almost in all the years during 1978-79 to 1993-94. Although the yield is stated to have improved after taking several steps like minimising leakage in batteries, improvement in functioning of effluent treatment plants and revamping and replacement of old equipment, the Committee have been given to understand that there is still scope for improving the production of by-products. They would therefore urge BSP to make every effort to raise the yield of by-products to the level of norms provided for the same. The Committee also desire that efforts should be made to further increase the production at Sulphuric Acid Plant.

25. The Committee note with a degree of satisfaction that the total manpower of Bhilai Steel Plant has come down to 53620 as on 1.4.1995 from 65189 as on 1.4.1986. However, they are concerned to observe that the outflow of Executives from SAIL has been on the rise. The percentage of executives who left SAIL increased from 0.86% in 1992-93 to 0.98% in 1993-94 and 1.22% in 1994-95. Evidentally, the steps taken by SAIL to prevent the outflow of personnel from SAIL are not adequate. The Committee therefore, recommend that Government should look into this aspect seriously and ensure that exit of personnel from a specialised public undertaking like SAIL is arrested. They would also like to be apprised of the steps taken in this regard.

26. The Committee observe that on the recommendations of Statutory Auditors, the internal audit wing of BSP is being strengthened but no action has been taken to change the reporting systems. They desire that the reporting system should be brought in line with the advice of Statutory Auditors starting from the financial year 1996-97. The Committee are also very much perturbed over the fact that the internal audit wing of the company did not carry out appraisal of the steel plant as recommended by the Committee in their 15th Report (4th Lok Sabha). It was only in 1993-94 that action in this regard has been initiated. The Committee wish to emphasise that they attach the greatest importance to the implementation of their recommendations. They, therefore, desire that the appraisal now undertaken by the internal audit wing should be completed expeditiously under intimation to the Committee.

27. During 1984-85 to 1988-89, the shortage in receipt of indigenous coal beyond the norms of 5% was to the extent of Rs. 10.57 crores. There was also a shortage in receipt of imported coal valuing Rs. 22.58 crores during 1987-88 to 1991-92. The Committee are disagree with the contention of SAIL that it was the responsibility of Railways and Coal India Ltd. to ensure supply of the correct quantity of coal. They expect that with the reported introduction of joint inspection by SAIL and CIL in regard to quantity and quality such shortages would not occur in future. In regard to imported coal also, the Committee desire that foolproof arrangements including provision of electronic weigh-bridges at the ports should be made in order to avoid loss on this account.

NEW DELHI;
March, 1996
Phalguna, 1917 (Saka)

KAMAL CHAUDHRY,
Chairman,
Committee on Public Undertakings.