52

STEEL AUTHORITY OF INDIA LIMITED—BOKARO STEEL PLANT

MINISTRY OF STEEL

COMMITTEE ON PUBLIC UNDERTAKINGS

1995-96

FIFTY-SECOND REPORT

TENTH LOK SABHA

LOK SABHA SECRETARIAT
NEW DELHI

FIFTY SECOND REPORT

COMMITTEE ON PUBLIC UNDERTAKINGS (1995-96)

(TENTH LOK SABHA)

STEEL AUTHORITY OF INDIA LIMITED— BOKARO STEEL PLANT (MINISTRY OF STEEL)

[Action Taken by Government on the recommendations contained in the 37th Report of the Committee on Public Undertakings (Tenth Lok Sabha)]

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LOK SABHA SECRETARIAT
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(1995-96)

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* Elected w.e.f. 22nd August, 1995 *vice* Shri Vilas Muttemwar resigned from the Committee. Ceased to be a Member of the Committee consequent on his appointment as Minister in the Council of Ministers w.e.f. 14th September, 1995.

** Ceased to be a Member of the Committee consequent on his appointment as Minister in the Council of Ministers w.e.f. 15th September, 1995.

INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to submit the Report on their behalf, present this 52nd Report on Action Taken by Government on the recommendations contained in the 37th Report of the Committee on Public Undertakings (Tenth Lok Sabha) on Steel Authority of India Limited—Bokaro Steel Plant.

2. The 37th Report of the Committee on Public Undertakings (1994-95) was presented to Lok Sabha on 22nd December, 1994. Replies of the Government to all the recommendations contained in the Report duly vetted by Audit were received on 15th February, 1996. The Committee considered and adopted the Report at their sitting held on 28th February, 1996.

3. An analysis of the action taken by Government on the recommendations contained in the 37th Report (1994-95) of the Committee is given in Appendix-II.

NEW DELHI;
7 March, 1996

Phalguna 17, 1917 (S)

KAMAL CHAUDHRY,
Chairman,
Committee on Public Undertakings.

CHAPTER I

REPORT

The Report of the Committee deals with the action taken by Government on the recommendations contained in the Thirty-Seventh Report (Tenth Lok Sabha) of the Committee on Public Undertakings (1994-95) on Steel Authority of India Limited—Bokaro Steel Plant which was presented to Lok Sabha on 22nd December, 1994.

2. Action Taken notes have been received from Government in respect of all 32 recommendations contained in the Report. These have been categorised as follows:—

(i) Recommendations/Observations that have been accepted by Government:—
Sl. Nos. 1, 2, 3, 6 to 13, 15, 16 to 20, 22 to 24, 26 and 28 to 32.

(ii) Recommendations/Observations which the Committee do not desire to pursue in view of Government's replies:—
Sl. Nos. 21, 25 and 27.

(iii) Recommendations/Observations in respect of which replies of Government have not been accepted by the Committee:—
Sl. Nos. 4 and 5.

(iv) Recommendations/Observations in respect of which final replies of Government are still awaited:—
Sl. No. 14.

3. The Committee desire that final replies in respect of recommendations for which only interim replies have been given by Government should be furnished to the Committee expeditiously.

4. The Committee will now deal with the action taken by Government on some of the recommendations.

***A.* Shortfall in the production of Steel**
Recommendation Serial Nos. 4 & 5 (Paragraphs 2.84 & 2.85)

5. The Committee had observed that the production of steel at Bokaro Steel Plant had been much less than the installed capacity of 4 million tonnes per annum and the shortfall in production during the years 1978 to 1992 amounted to 4.7 million tonnes due to various reasons. They had also observed that the factors which were now stated to have been identified for lower production could have been identified earlier so that remedial steps could be initiated in time and shortfall in production avoided. They had, therefore, desired 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.

6. In their reply, the Government have stated that the improvements in a complex industry like steel are a continuous process and actions to remove constraints if any, are taken as and when identified. In particular the constraints such as shortage of power and poor quality of coal etc. leading to shortfall in production at Bokaro Steel Plant were identified by SAIL well in time. In regard to shortage of power it has been stated that a 3×60 MW captive power plant was sanctioned in 1981 to augment captive generation capacity which was commissioned in 1986. However, the audit have pointed out that the 3 units of the captive power plant sanctioned in 1981 were actually commissioned in January, 1986, September, 1988 and March 1989 respectively. According to the Ministry, the date of commissioning of the first unit is normally taken as the date of commissioning of the project. In order to contain the effect of inconsistent and poor quality of indigenous coking coal, imported coking coal was used in higher proportions. The plant went through its stabilisation process after gradual commissioning of various facilities. The year 1989-90 was the first year of full capacity of 4.0. MT.

7. The Committee are not satisfied with the reply furnished by Government. Although it has been stated that actions to remove constraints in production are taken as and when identified, the Government have not replied to the specific point made by the Committee as to when the factors responsible for lower production were identified and when the remedial measures were initiated. They, therefore, reiterate their recommendation and desire that the Committee should be apprised as to exactly when the factors responsible for lower production were identified and exactly when remedial measures were initiated. Moreover, the Committee are unable to appreciate the contention of the Government that a project is deemed to have been commissioned when its first unit is commissioned. They depricate the furnishing of an ambiguous reply to the Committee in this regard.

B. *Disposal of Sulphuric Acid Plant*
(Recommendation Sl. No. 14 (Paragraph 2.94)

8. While observing that the production of Sulphuric Acid ranged from 24.89% to 39.53% only during 1980-81 to 1991-92, the Committee had pointed out that action for disposal of the Sulphuric Acid Plant which was lying idle since 1980 had not so far been initiated. They have desired that the exercise in regard to the assessment of present disposable value of the plant should be completed very soon.

9. The Government have in their reply stated that the first Sulphuric Acid Plant has been sold. However, according to the Audit the sale order for sale of this plant was issued in January, 1995. The purchaser paid the earnest money of Rs. 0.52 lakhs only. He has neither paid sale price of Rs. 92.51 lakhs which was required to be made by 22nd January, 1995, nor

lifted the plant. Action for forfeiture of earnest money is now stated to have been initiated by SAIL in consultation with Law Department. In regard to the Sulphuric Acid Plant-II it has been stated that it was in prodcution till December, 1994 with statutory clearances. In the Chief Executives meeting held on 21st December, 1994 it was decided that due to shortage of Sulphuric Acid being faced by Durgapur Steel Plant, BSL will continue to operate the old acid Plant-II till the new Double Conversion Double Absorption (DCDA) plant commissioned in November, 1994 was stabilised to meet the requirement of DSP also. The plant has since been stabilised and requirements of Sulphuric Acid of BSL as well as DSP were being met from this new plant. In addition, the melting section of Sulphuric Acid Plant-II has been upgraded to supply molten sulphur to new DCDA plant and as such a part of the Acid Plant-II has been used. The remaining part is in so bad condition that the same cannot be used without huge additional investments. Consequently, BSL floated tender in February, 1995 to assess the best disposable value for SAP-II but there was no response. SAIL (BSL) has again initiated the proposal for disposal of SAP-II in September, 1995.

10. The Committee are perturbed to note that even after an elapse of more than one year since they had made a recommendation for disposal of SAP-I, the disposal of the plant does not appear to have been completed. They wonder how the acid plant can be said to have been sold when neither the sale price has been paid by the purchaser nor the plant has been lifted by him. The Committee would like to be informed of the efforts being made by SAIL for disposal of SAP-I and part of SAP-II.

C. Consumption of Ingot Moulds and Bottom Plates
Recommendation Sl. No. 15 (Paragraph 2.95)

11. The Committee had pointed out that the consumption of Ingot Moulds and Bottom Plates in BSL was higher than the norms. During the period 1979-80 to 1990-91 alone the extra expenditure due to excess consumption of Ingot Moulds and Bottom Plates amounted to Rs. 56.94 crores. The Committee had urged upon SAIL to ensure strict adherence so that the consumption of these items was brought down.

12. In their reply, the Government have stated that by taking corrective measure SAIL has been able to keep the consumption level of Ingot Moulds and Bottom Plates within norms during the year 1993-94. It was stated that the consumption was 31.40 Kg./TCS which was also the norm. However, Audit have pointed out that against the norms of 31.4 Kg. per tonne of steel produced the actual consumption of Ingot Moulds and Bottom Plates has gone up in 1994-95 to 33. 73 Kg/T (Ingot Mould 27.41 Kg/T and Bottom Plates 6.32 Kg/T). According to Ministry, during 1994-95, in order to meet the customers demand, higher size Moulds (28 tonnes) were used whose life was less than that of smaller size. Measures

being taken by SAIL to improve that life of such Moulds which would control the consumption.

13. The Committee urged that all out efforts should be made by SAIL to keep the consumption of Ingot Moulds and Bottom Plates within the norms.

D. Productivity of the Plant

Recommendation Sl. No. 23 (Paragraph 4.15)

14. The Committee had observed that although the BSL had accumulative profit of Rs. 1687 crores as on 31st March, 1993, the same could have been higher by at least Rs. 600 crores had the production been upto the rated capacity. They had expected that with the use of imported coal, the reported improvement in the availability of power, wagon and various other remedial steps underway, the plant would be able to further step up the production and increase its profitability.

15. In their reply, the Govenrment have stated that the production at BSL has generally shown an upward trend in the recent years. The accumulated profit has also been gone up to Rs. 2112.15 crores as on 31st March, 1994. However, the Audit has pointed out that except for hot metal and ingot rolling there was downward trend in all other products during 1994-95 compared to the production during 1993-94.

16. The Committee desire that SAIL/BSL should make all out efforts to achieve production upto the rated capacity by taking appropriate measures to overcome the various constraints.

E. Modernisation of Bokaro Steel Plant

Recommendation Sl. No. 26 (Paragraph 5.39)

17. Bokaro Steel Plant has developed its unit Corporate plan upto 2005 AD aiming at a production capacity of 5.25 million tonnes. In order to achieve this capacity it proposed to Government, the modernisation of the plant in two stages, stage I for going upto capacity of 4.5 million tonnes and stage II for going upto a capacity of 5.25 million tonnes. But due to constraints of resources, Government gave its approval in July, 1993 to Stage I only with cost estimates of Rs. 1625.79 crores, with completion schedule of 48 months i.e. by July, 1997, The Committee desired that with the SAIL having learnt lessons from past experience, stage I of modernisation should be completed within the stipulated cost and time schedule. While expressing concern over the fact that no corporate proposal has yet been submitted to Government for stage II of modernisation, the Committee had urged timely action in regard to stage II, so as to achieve the envisaged capacity by 2005 AD.

18. In their reply, the Government have stated that all out efforts were in hand to complete Modernisation Stage I Programme within the stipulated cost and time frame by SAIL Phasing out ingot casting and slabbing mill and introduction of 100% continuous casting was envisaged

after completion of Stage II Modernisation in the original proposal. The stage II proposal was being re-formulated.

19. The Committee are concerned over the slow progress in regard to reformulation of stage II of modernisation. They would stress that the reformulation of proposal for stage II of modernisation of Bokaro Steel Plant be completed without any further loss of time.

F. Fixing of responsibility for lapses

Recommendation Sl. No. 32 (Paragraph 5.45)

20. The Committee had recommended in their original Report that responsibility should be fixed for various lapses pointed out by them in the Report. Government have stated in their reply that a Committee was constituted by the Managing Director, Bokaro Steel Plant but that Committee could not fix responsibility on any individual.

21. Steel manufacturing is a complex industry. Any lapse or performance below par in one unit naturally has a cascading effect on other units. It is necessary, therefore, that responsibility for such lapses should be fixed to avoid their recurrence. The Committee desire that, in future, whenever any lapse is noticed by the management, action should immediately be initiated with a view to fixing responsibility and taking appropriate action against the erring officials.

CHAPTER II

RECOMMENDATIONS THAT HAVE BEEN ACCEPTED BY GOVERNMENT

Recommendation Sl. Nos. 1 & 2 (Paragraph Nos. 1.21 & 1.22)

Bokaro Steel Plant originally incorporated as a limited company in January, 1964 became a subsidiary of Steel Authority of India in January, 1973 and later a unit of SAIL in 1978. The first phase of the Plant envisaged a capacity of 1.7 MT of Ingot Steel while the second phase envisaged expansion of its capacity to 4 MT. The Committee are constrained to observe that against the scheduled date of December, 1970, Stage-I of the project could only be completed by February, 1978. Apart from the delays in obtaining Government sanctions, import clearances etc. delay in receipt of equipment, inadequate control over construction activities, faulty assessment of the volume of work involved and of the capacity of the various agencies engaged in the construction were cited as the reasons for delay in completion of Stage-I of the project. The final cost of this stage also escalated to Rs. 981.34 crores against the estimated cost of Rs. 620.63 crores due to poor estimation of costs and implementation failures, non-availability of steel and cement etc. The Committee are not convinced with the reasons put forward for the time and cost over-runs in completion of the first stage since these factors could have been avoided with better anticipation and planning. The contention of the company and the Ministry that a part of the cost and time overrun was because of the learning curve in Stage-I *i.e.* reliance on indigenous resources and generating experience in Indian technical personnel is not tenable in as much as huge time and cost overruns also occurred in implementation of Stage-II of the project as brought out in the subsequent paragraph.

State-II of the Plant i.e. the project for expansion of capacity of 4 MT per annum which was taken up in 1971 was to be completed by June, 1979 except for Cold Rolling Mills one unit which was to be completed by December 1982. But it is disquieting to note that here again there was a delay of 5 to 8 years in the commissioning of the various units. The final cost of Stage-II was as high as Rs. 2198.10 crores as against the estimated cost of Rs. 917.24 crores and revised estimates of Rs. 1637.55 crores as approved by Government. In fact no lessons seem to have been learnt from the failure in timely completion of Stage-I since the reasons given for the delay in completion of Stage-II are almost the same as in the case of Stage-I. The Committee wonder how inspite of efforts claimed to have been made such as the SAIL and plant authorities ensuring coordination

and supervision at different levels, progress being reviewed on monthly and quarterly basis by Plant, SAIL and Ministry, consultancy services being utilised, monitoring being done by network techniques and adequate supply of raw materials being ensured, there was such an inordinate delay in completion of Stage-II also. The Committee are of the view that had the project been monitored and managed well there was no reason why it could not have been completed in time. They, therefore, recommend that in future whenever such plants are set up, integrated project management should be ensured for controlling all facets of the project including finance, purchases, supply of machinery and equipments etc., the progress of work should be critically reviewed on monthly and quarterly basis and co-ordination and supervision at different levels should be ensured.

Reply of the Government

Action on the recommendation of the Committee for proper integrated project monitoring is being ensured by SAIL during implementation of Bokaro Steel Plant Modernisation (Stage-I) programme, scheduled to be completed by July, 1997. Already net-work schedule has been drawn up by SAIL and monitoring/review groups formed at various levels. Rigorous follow-up actions are being taken for course correction, wherever required. Periodical review of the implementation is also done at Chairman's level to ensure timely completion within the stipulated cost. Action like crashing of certain activities following those where slippages do occur, are also taken as per requirement to arrest time over-run.

In addition progress of implementation of Bokaro Steel Plant (Stage-I) Modernisation is reviewed periodically by the Ministry of Steel.

Comments of Audit

No Comments.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 3 (Paragraph No. 1.23)

Apart from the implementation of projects, the Committee would like to emphasis another aspect *viz.* the procedure involved in the sanctioning of projects. In their various Reports, the Committee have been pointing out the need for simplifying the procedures so that the public sector projects are sanctioned expeditiously and unnecessary escalation of costs avoided. They would once again urge that in order to provide a fair chance to public sector for competition in the context of liberalisation of economy, the Government must evolve simplified procedures for speedy sanction of public sector projects.

Reply of the Government

Procedures for sanction of projects and their simplification are indicated from time to time by the Ministry of Finance. Reviews of these procedures are conducted in the light of the experience of their operation. As a result of economic liberalisation in 1991, Ministry of Finance have been reviewing the existing procedures for approval of investment and have been issuing amendments from time to time enhancing the financial powers of the Ministries/Departments and laying down time-limits for sanctioning investment proposals of the public sector enterprises. These instructions also apply in respect of projects taken up by Steel Authority of India Limited (SAIL).

Comments of Audit

No Comments.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 6 (Paragraph No. 2.86)

The production of Blast Furnace Coke (25mm and above) has always been lower than the rated capacity of 34.80 lakh tonnes since 1978-79 to 1992-93. The production which ranged from 21.96 lakh tonnes to 26.82 lakh tonnes was even less than the targets fixed except in the year 1992-93. The Committee are not convinced with justification for lower production given by the Company that the production was regulated as per the requirement of blast furnaces and inter-plant transfers. As has been brought out by Audit against 16.1 to 16.9 hours of Coking time estimated in the project report, the actual coking time ranged between 18.27 to 23.49 hours during 1978-79 to 1991-92. The lesser production was due to this higher coking time which was attributed first to the poor quality of coal and then to the ageing of batteries and equipments. The Committee wondered why the quality of coking coal changed in the batteries which is not being maintained by using the imported coal, the percentage of which has been ranging between 34 to 38% since 1990-91 could not be maintained earlier although Bokaro Steel Plant has been using imported coal for a number of years. Equally disturbing is the fact that no reserve batteries were provided for rebuilding of old batteries due to which the production could not pickup even after using imported coal in the desired proportion. The Committee have no doubt that this situation could have been avoided had the management taken proper remedial steps at the right time. They would recommend that a schedule should now be drawn up for rebuilding of old batteries at the earliest.

Reply of the Government

Regarding quality of coal, Coal Controller is empowered to exercise control for improvement in quality. Coal Controller has started monitoring the performance of the Washeries in coordination with

SAIL (Central Coal Supply Organisation)/CIL and plant concerned and action as deemed fit is being taken for improvement in quality.

The following actions have been initiated by SAIL for rebuilding of old Batteries:—

Action already taken by SAIL

(i) A new Battery No. 8 has been commissioned on 21.9.93 as a reserve Battery;

(ii) Battery No. 4 has been taken down for re-building;

(iii) Major repairs have been carried out in Batteries Nos. 5 & 6 during the period October, 1993 to June, 1994;

(iv) Cold campaign repair is in progress in Battery No. 1;

(v) SAIL Board has already approved re-building of Coke Oven Battery No. 3 in its 212th meeting held on 26.9.1995;

(vi) Hot Repair of Battery No. 2 has already been taken up during the current year and likely to be over by March, 1996;

(vii) Proposal for installation of two new Batteries (Nos. 9 & 10) of higher capacities to replace four existing Batteries (Nos. 1, 2, 5, & 6) is under Government's examination; and

(viii) SAIL Board has approved in principle, the proposal for Introduction of Coal Dust Injection in Blast Furnaces in their 204th meeting held on 20.2.95. Offers from the Bidders have been received and are under evaluation and expected to be finalised by December, 1995.

Comments of Audit

No Comments.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 7 (Paragraph No. 2.87)

The performance of the Blast Furnace has also not been very satisfactory. While the percentage of total production of hot metal to rated capacity increased from 57 in 1985-86 to 88 in 1993-94, the percentage of off grade production to total hot metal also increased from 21% to 34.5% during the same period, though it is stated to have shown some improvement subsequently. The Committee have been given to understand that the shortfall in production compared to the rated capacity was due to poor and inconsistent quality of indigenous coal, coke and raw materials as also due to lower availability of sinter. The fluctuation in input quality of Fe. content in ore also resulted in production of off-grade metal. They urge that the efforts initiated by the company for maintaining the homogeneity of Fe. content in the ore should be intensified. They also recommend that the quality of coal

used in the Blast Furnaces should also be maintained, if necessary, by blending it with imported coal, as is now being in the coke-oven batteries.

Reply of the Government

SAIL has taken following actions for maintaing homogeneity of Fe. content:—

Actions already taken by SAIL

(i) Repair of Stacker tracks done;

(ii) Traverse drive mechanism modified for 3 out of 5 Stackers used for blending of Ore to be used in Sintering Plant and Blast Furnaces;

(iii) Control and close monitoring of blend materials ratio in blend formation.

Use of imported coal in blend was increased to 36.9% in 1993-94 and to 43% during 1994-95.

The percentage of off-grade production to total hot metal production has come down gradually in recent years as is evident from the following figures:

(Figures in MT)

	Total H/Metal produced	Off-grade	%age
1991-92	3.67	1.27	34.6
1992-93	3.86	1.10	28.5
1993-94	4.04	0.48	11.9

Action proposed to be taken by SAIL

(i) Modification of traverse drive of rest of two Stackers so that homogeneity is maintained in Ore for RMP;

(ii) Provision for suitable liners in Tippler Hoppers chutes of conveyor series and Stackers for better flowability of sticky materials; and

(iii) Percentage of imported coal in blend is proposed to be kept at 50% during 1995-96.

Comments of Audit

No Comments.

[Ministry of Steel OM No. 9(1)/95/BSL-SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 8 (Paragraph No. 2.88)

A Slag Granulation Plant was to commissioned by Bokaro Steel Plant in July, 1979 at a cost of Rs. 9.64 crores with the expectation of cement plants being set up in the vicinity of Bokaro Steel Plant. The expected

capacity for cement production did not come up and since granulated slag can only be used for making cement, the Slag Granulation Plant remained largely unutilised. Its capacity utilisation ranged between 1.26 to 27.70 percent of rated capacity upto 1991-92 and during 1992-93 it came down to as low as 12.60%. The Committee strongly deprecate the decision of the company for going in for this plant on the basis of expectations without verifying the actual market potential. Before setting up the plant, the sale of the granulated slag produced at the plant should have been tied up. Cement plants being the only users of granulated slag, the Committee desire that the suggestion of Chairman, SAIL for setting up future cement plants near the steel plants should be seriously considered keeping all other relevant factors in view. The Committee also recommend that the problem of availability of Railway rakes for disposal of granulated slag should be taken up at the highest level.

Reply of the Government

The Slag Granulation Plant (SGP) aims at controlling pollution, as well as, to salvage a product which was earlier thrown as a waste.

Low capacity utilisation of the Slag Granulation Plant was due to poor market demand for this product coupled with limited availability of Railway wagons due to movement priority of high value items of Iron & Steel Products. However, there has been a gradual improvement in the production of granulated slag in recent years as is evident from the following figures:—

1991-92	1,40,880 tonnes
1992-93	1,70,080 tonnes
1993-94	2,04,424 tonnes

The remedial action already taken by SAIL to improve productivity of SGP are as under:—

(i) Improving the yield of Slag laddle which will ultimately help in increasing plant utilisation;

(ii) Constant inter-action with Railway authorities for timely supply of wagons;

(iii) Constant inter-action with various customers;

(iv) Creation of extra storage capacity of 10,000 tonnes.

As regard setting up of future Cement Plant, SAIL has decided to explore the possibility of setting up a Slag based Cement Plant in Joint Venture at Bokaro.

Comments of Audit

No Comments.

[Ministry of Steel OM No.9(1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 9 (Paragraph No. 2.89)

The Rolling Mills at Bokaro which consist of Slabbing Mill, Hot Strip Mill Hot Rolled Coil Finishing Mill and Cold Rolling Mill were commissioned between December, 1974 and December, 1988. Against an input of 4 million tonnes of steel ingots, the Rolling Mills are designed to produce 3.15 million tonnes of finished and semi-finished products, while the rest goes as scrap. The Committee are constrained to observe that the generation of scrap has been higher in the Slabbing Mill almost every year till recently due to improper deoxidation in Steel Melting Shop caused by erratic behaviour of the weigh scales of ferro-alloys charging systems. The Production of scrap in Hot Strip Mill and other finishing mills was also high in all the years. It was only in late 1993 that the ferro-alloys charging systems in both the Steel Melting Shops were replaced with electronic system, similarly the dead and worn out table rolls leading to higher production of scrap in Hot Strip Mill have now been replaced in a phased manner starting as late as from 1991-92. These alongwith some other measures have resulted in some decline in scrap generation. The Committee wonder why it took so long for taking the remedial measures when the scrap generation in the Rolling Mills has been higher continuously for so many years. They desire that responsibility for such inaction should be fixed and suitable action taken against the delinquent officials under intimation to the Committee.

Reply of the Government

The existing capacity of Steel Melting Shops is 4 MT of ingot steel. Against this, the Slabbing Mill and Hot Strip Mill are designed to produce 3.449 MT (86.2%) and 3.363 MT (84.07% of ingot steel production and 97.5% of slabs produced) respectively. This implies that a rolling loss of 15.93% (scale loss and scrap arising) was envisaged in the detailed project report (DPR) itselt Against this, the actual performance of Slab Mill & Hot Strip Mill for the last three years is as under:—

(Figures in Million Tonne)

	'91-92	'92-93	'93-94
Ke			
Ingot rolled (S/M) :	3.216	3.368	3.426
Slabs Produced :	2.763	2.905	2.965
Yield %ge :	85.9	86.3	86.5
Slab Input (HSM) :	2,795	2.959	3.117
HR Coils/Thick	2.707	2.866	3.026
Plates produced :			
Yield %ge :	96.8	96.8	97.1

The above figures show that rolling losses and yield %ge in Slab Mill & HSM in these years are close to DPR norms.

As directed by the Hon'ble Committee, a high-level Committee was constituted by MD, BSL to examine the issue and pin-point responsibility on erring officials for inaction. The Committee has concluded as under:—

1. During cross-examination of the concerned officials, the Committee gathered that over-all improvement in production, productivity and yield was their basic approach. The Committee also noticed a decline in scrap-generation in Slab. Mill in recent years.
2. DPR norms were fixed based on ideal conditions on the basis of Russian experience. However, similar inputs, working conditions and technical parameters did not exist, specially in initial stages.
3. Gradual improvement was achieved through the following multiple actions taken both simultaneously and consequentially to contain generation of scrap in Mills area:—
   (i) Extensive advice and services of Russian Experts were availed to bring improvement.
   (ii) Control of track time of ingots.
   (iii) Optimisation of heating regime in Soaking Pits.
   (iv) Use of alternate type of moulds.
   (v) Intensification of mould cleaning and coating.
   (vi) Improvement in the cooling system of roll table bearing.
4. In the process, weighing scales of ferro-alloys in SMS and Table rolls were also replaced. The replacement of the weighing scales involved huge capital expenditure (Rs. 1.9 crore) and hence a micro-study of cost-benefit analysis had to be done, before implementing the project.
5. The final conclusion of the Committee is that excess generation of scrap was not due to delayed action on the part of any individual(s)— the stringent DRP norm and other operational constraints including power shortage were responsible for this.

Comments of Audit

A Committee was constituted in April '95 by the Company to examine the reasons for continuous higher generation of scrap in the Rolling Mills and to fix the responsibility for the lapses on the part of the erring officials.

The Committee submitted its report in May, 95 and opined that excess generation of scrap was due to operational constraints like power shortage etc. and was not due to any lapses on the part of any individual. Hence no responsibility was fixed.

Further Reply by Government

No further comments.

[Ministry of Steel OM No.9(1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 10 (Paragraph No. 2.90)

Not only was the generation of scrap in the Rolling Mills higher, but the production performance of the various units has also been none too happy. The production in the Slabbing Mill ranged between 58% to 86% of the rated capacity during the years 1980-81 to 1993-94 primarily due to shortage of power and gas and premature refractory failures. The Committee urge that the availability of power and efficiency of soaking pits having now been improved, all out efforts should be made to achieve the rated capacity of the Slabbing Mill, similarly the production of hot rolled strip in the Hot Strip mill ranged between 52% to 89% during 1981-82 to 1993-94. The Committee desire that pending completion of the modernisation scheme which also includes modernisation of Hot Strip Mill, suitable measures should also be taken to minimise generation of defective ingots and slabs which are unsuitable for rolling in slabbing and Hot Strip Mills.

Reply of the Government

The following data indicates the Generation of defective ingots/slabs has decreased in last three years at Bokaro Steel Plant:—

	Percentage of defective	
	Slab	Ingot Steel
1991-92	2.89	0.75
1992-93	2.36	0.48
1993-94	1.02	0.55

It may be stated that generation of small quantity of ingots/slabs not suitable for further rolling is a part of the process because of certain unavoidable reasons like sudden power failure, breakdown of the equipment, etc. Defective ingots/slabs are disposed-off by remelting/ selling.

The production figures and capacity utilisation of both slabing and Hot Strip Mills during the last three years are as under:—

	Slabbing Mill (Figures in MT)	
	Ingot Rolled (Cap: 4 MT)	Slabs Produced (Cap: 3.45 MT)
1991-92	3.22(80.5%)	2.76(80%)
1992-93	3.38(84.5%)	2.91(84.3%)
1993-94	3.43(85.7%)	2.96(85.8%)

Hot Strip Mill (Cap. 3.36 MT)

	Excluding Thick Plates	Including Thick Plates
1991-92	2.67 (79.5%)	2.71 (80.4%)
1992-93	2.83 (84.2%)	2.87 (85.2%)
1993-94	2.98 (88.7%)	3.03 (90.0%)

Defective ingots and slabs get generated either due to equipment/power failure or due to human errors. Some of the remedial steps taken are:—

(a) Equipment Failure

(1) Timely capital repair of processing units.

(2) Introduction of systematic maintenance management through modern techniques like Computer-based maintenance system etc.

(3) Two-tier inspection system.

(4) Analysis and classification of defects.

(5) Repair planning and review system.

(6) Failure Analysis.

(b) Human Failure

(1) Close followup of shop operating practices.

(2) Upgradation of workers skill by regular training.

(c) Power Failure

(1) Constant dialogue with DVC for improvement in health of their transmission lines and allied equipments.

(2) CET is currently making a feasibility report for setting up of a 30 MW Gas turbine to ensure uninterrupted power supply in the event of Grid failure.

Comments of Audit

The Production of defective ingot steel increased from 0.55% in 1993-94 to 1.45% in 1994-95.

The production in HSM during the year 1994-95 declined to 2.94 M/t (87.5%) excluding thick plates and to 2.99 M/t (89%) including thick plates.

Further Reply by Government

In order to adhere to quality parameters and for better customer satisfaction in the competitive scenario more ingots were rejected.

The less production in HSM during 1994-95 was due to less input (3.07 M/T) compared to 1993-94 (3.12 M/T). The yield percentage increased from 95.8% in 1993-94 to 95.9% during 1994-95.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II Dated 14.2.1996)]

Recommendation Sl. No. 11 (Paragraph No. 2.91)

In the Hot Rolled Coil Finishing and Cold Rolling Mills also, the capacity utilisation has been far from satisfactory. In the former, the production ranged from 31% to 56.48% of rated capacity during 1980-81 to 1991-92 and declined to 50% in 1992-93. In the case of cold rolled products, the production declined from 68% of rated capacity in 1987-88 to 39% in 1992-93. It is worthwhile to note that the utilisation of both the Hot Rolled Coil Finishing and Cold Rolling Mills has fallen during 1992-93 compared to the previous year. Therefore, SAIL's contention that the production of HR coil at Hot Strip Mills being itself below rated capacity, judicious distribution of HR coil produced has to be made depending upon the market requirement for cold rolled and hot rolled products is not tenable. The Committee, therefore, recommends that the exact reasons for the low utilisation of Hot Rolled Coil Finishing Mill and Cold Rolling Mill should be identified and remedial action taken without delay.

Reply of the Government

The input figures of HR Coils for the years 1991-92, 1992-93 and 1993-94 in HRCF were 0.86, 0.75 & 0.82 MT respectively, as against the installed capacity of 1.5 MT. The input figures were low since the distribution of output of HSM (which itself worked below rated capacity) amongst CRM/HRCF/Coil Shipment had to be judiciously done as per the market requirement (and not as per the capacity of the units concerned).

The sluggish market conditions of 1992-93 and 1993-94 had forced the product-mix to be regulated as per the market demand. As a result, the production of HR Coils for sale was increased.

The production of CR products has also gone up as follows:—

Year	C.R. Saleable Products ('000 T)
1992-93	878
1993-94	950

The following steps have been taken by the SAIL to enhance the productivity of CRM:—

(i) Installation of 6 Nos. of new heat exchangers in Pickling Line-II to enhance the quality of pickled material and improve the shop productivity;

(ii) 4 Nos. of new recirculating pumps have been installed to improve rate and quality of pickling;

(iii) 2 Nos. of new emulsion pumps have been added to increase the emulsion flow rate and thus reduce breakages in the mill;

(iv) Automatic gauge control has been revamped to improve the product quality.

Action proposed to be taken (CRM) by SAIL:

(i) Another 6 Nos. of new heat exchangers are under procurement;

(ii) 4 Pumps under procurement;

(iii) Replacement of old welding machine in Line No. 1. This will increase the input coil weights and improve productivity;

(iv) Four Nos. of new emulsion pumps are being procured to replace the old and worn-out pumps in TCM-II to augment speed of rolling;

(v) Replacement of damaged/defective roll force load cells and tension load cells by end of 1995.

It may be stated that BSL is a multi-product plant supplying materials to many segments of industry. Depending upon the demand patterns the production of various units is regulated. Hence market requirement is the prime factor in deciding the product-mix. Also unstable and frequent power interruption and deterioration on the part of DVC restricted the mill utilisation at the lower level. In order to overcome this problem BSL management is in constant touch with DVC and at the same time internal resources of power generation are being geared up to balance the gap by providing boiler coal of required quality and quantity coupled with gas support.

Comments of Audit

No Comments.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 12 (Paragraph No. 2.92)

Ammonium Sulphate, crude tar and Naphthalene are produced as bye-products from coke-oven. It is distressing to observe that the original norms for production per tonne of dry coal charge had to be revised from 11.66 kg. to 9.5 kg in the case of Ammonium Sulphate and from 32 kg to 29 kg for crude tar due to lower volatile matter in the coal blend than provided for in the DPR. The Committee are unhappy to note that even the revised norms could not be achieved. The production per tonne of coal charge ranged between 6 kg. to 9.4 kg. for ammonium sulphate and between 24.5 kg. to 27.2 kg. for crude tar. The loss of production during the period 1979-80 to 1991-92 compared to original norms amounted to about Rs. 109 crores. Likewise, the production of Napthalene from

distilled tar during the years 1984-85 to 1991-92 was only 30.50% to 48.06% of anticipated production. The Committee would like to be informed of the improvement in production of bye-products after the steps taken recently for repair and replacement of various equipments.

Reply of the Government

A. Following are the remedial measures taken by SAIL for improvement in production of Bye-products:—

1. Campaign repair of Battery nos. 1, 5 and 6.
2. Re-building of Battery no. 4.
3. Introduction of HPLA system in Battery nos. 5, 6 and 8.
4. Replacement of 2 nos. of centrifuge machines in Ammonium Sulphate Plant.
5. Relacement of technological pipelines with stainless steel pipes.
6. Replacement of all leaky valves in Ammonium Sulphate Plant.
7. Replacement of squeezing ram of hydraulic press of Napthalene.
8. Replacement of gear box of drum crystallizer for Napthalene.

B . In addition, various measures taken for improvements of the Coke-Oven Batteries by replacements/rebuilding etc. will also improve the production of bye-products.

Action proposed to be taken by SAIL:

1. Replacement of 2 nos. of centrifuge machines of Ammonium Sulphate Plant.
2. Modification of Ammonia stripping facility.
3. Replacement of weighing scale with electronic one.
4. Replacement of power pack of hydraulic press for Napthalene.
5. Revamping of control instruments of Bye-Product Plant.

As a result of the above measures there has been improvement in the yield of by-products as indicated below:

Yield Percentage

	1993-94	1994-95
Crude Tar	22.3	24.0
Amm. Sulphate (KG/TDCC)	6.6	7.2
HP Napthalene (%age Tar distilled)	3.5	4.2

As regard volume of production, this is dependent on ovenpushing and not on the condition of equipments. Further, gradual increase in percentage of imported coal (having low VM) in the blend also affects

yield of bye-products – 1% decrease in VM approx. affects the Tar yield by 2.4 KG/TDCC and Amm. Sulphate yield by 0.8 KG/TDCC.

Comments of Audit

The yield %age of crude tar during the year 1994-95 was 24.4 instead of 24.0.

The yield %age of HP Napthalene was 3.3% in 1993-94 and 4% in 1994-95 as against 3.5% and 4.2% respectively.

Further Reply by Government

Audit has taken the figures of production of crude tar as 91815 M/T. Actually, this was only 91,400 M/T.

The yield %age of HP Napthalene is to be calculated after deducting 5% moisture loss. This fact has not been taken into account by Audit.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 13 (Paragraph No. 2.93)

The Committee regret to observe that the excess consumption of sulphuric acid compared to norms of 770 kg. per tonne of ammonium sulphate produced during 1979-80 to 1991-92 amounted to Rs. 1.95 crores. What is more surprising is that though the excess consumption was known to be due to certain defects in equipment, remedial action has been taken only recently which has resulted in some reduction in consumption of sulphuric acid. The Committee desire that the matter should be thoroughly investigated and the responsibility be fixed for not taking timely action for maximising the production of bye-products and bringing the consumption of sulphuric acid within norms.

Reply of the Government

The higher consumption of sulphuric acid per tonne of Ammonium Sulphate produced was thoroughly investigated by a Committee constituted by Managing Director, SAIL (BSL) with a view to pin-pointing responsibility for lapses, if any.

The findings of the Committee are as under:—

1. The DPR norm (770 kg./tonne) is based on acid concentration of 100%. The sulphuric acid produced at BSL has concentration varying between 96 and 98%. The acid procured from outside has even lower concentration. Considering this, acid consumption in the range of 780 to 800 kg./tonne is normal subject to healthy condition of equipments and pipe-lines of Ammonium Sulphate Plant. During 1978-79 to 1985-86, the consumption rate was in the range of 771 and 791 kg./tonne, which was considered normal under varying operating conditions in the plant.

2. The consumption rate was higher during the period 1986-87 to 1992-93 primarily because of:—

(i) Ageing of the equipments.

(ii) Non-availability of proper Centrifuges and its vital internal spares from USSR.

(iii) Failure of internals in the Saturators and Acid Catchers.

(iv) Failure of construction materials in acid protection work and lining.

(v) Failure of pipe-lines/valves due to severe corrosion.

3. The corrective measures were identified in time and suitable remedial measures taken as described below:—

I. *Re-vamping of Saturators and Acid Catcher Complex consisting of four units, one by one, including repair and re-lining of lead and brick-work and for modifying the components with suitable special stainless steel i.e. 316L Type.*

II. *Development and installation of Acid Catchers (4 nos.) with stainless steel.* Both the above activities were of capital nature and time-taking, since these could be done only one after another. The job was also to be executed in highly gas hazardous and explosion prone area. The re-vamping was organised since 1986 and it took 4-5 years to achieve the desired level of improvement in health of equipments.

III. *Replacement of damaged USSR make 1400 mm dia Coke-Oven gas valves.* On failing to get these spare valves from USSR, the shop developed in-house drawings/specifications and repaired 10 nos. valves from 1987 to 1992 with internal resources. The shop also developed new gas valves suitable for its requirement, but these could be available and used only in 1994.

IV. *Replacement of the ageing Centrifuges (in operation since 1972) and/or its vital internals like. piston cylinder assemblies, etc.* All efforts of SAIL to procure these spares from USSR/indigenous sources did not materialise, and hence SAIL had to develop their own Engineering drawings and specifications. After repeated trials, theses could be successfully installed by the end of 1988. Subsequently, SAIL's efforts for import of Centrifuges materialised (as a special case) and these were installed in 1992.

V. *Replacement of all USSR make Valves in Slurry and Mother liquor circuits with suitable indigenous ones.* The indigenously procured stainless steel Gate and Globe valves during the period 1985-88, as replacement of USSR valves, could not meet the process requirements and/failed. The search for suitable valves, however, continued and SAIL was successful in procuring Tufflin

plug valves which were installed during 1988-89.

VI. *Replacement of various leaking stainless steel pipelines in Ammonium Sulphate Plant particularly in the Slurry and Mother Liquor circuits.*

These pipe-lines had been damaged after nearly fifteen years of continuous operation. Pipelines of dia. 25mm to 300mm had to be procured and progressively replaced in the entire Ammonium Sulphate Plant.

4. The Committee while concluding that no individual(s) was responsible for higher consumption of sulphuric acid, has also come to the conclusion that:—

(i) All-out efforts were made during 1986—92 to overcome the problems without affecting the continuous production of Ammonium Sulphate. The Commitee has also observed that shutdowns/bye-passing of Ammonium Sulphate Plant stops recovery of ammonia from Coke-Oven (CO) gas and causes serious damage to the downstream equipments and the entire CO Gas network. This situation had, obviously, to be averted even at the cost of somewhat higher consumption of sulphuric acid.

(ii) Consequent upon the steps taken, the acid consumption rate from 1992-93 onward improved consistently and was within the normal range of 780 Kg./tonne of Ammonium Sulphate produced during 1993-94, which is comparable to the consumption in similar plants elsewhere.

Comments of Audit

A Committee was constituted by the Company in April, 1995 to examine the reasons for excess consumption of sulphuric acid in the Bye-product Plant and to fix the responsibility for the same.

The Committee submitted its report in May, 95 and opined that no individual was responsbile for higher consumption of sulphuric acid.

Further Reply by Government

No further comments

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 15 (Paragraph No. 2.95)

It is a matter of concern that inspite of the strict quality control measures taken by the management in 1983, consumption of ingot moulds and bottom plate continued to be higher than norms. During the period 1979-80 to 1990-91 alone, the extra expenditure due to excess consumption of ingot moulds and bottom plates amounted to Rs. 56.94 crores. Though the consumption of ingot moulds and bottom plates has been reduced to 31.53 kg/TCs in 1990-91, the Committee take a serious view of the laxity

of the management in not taking timely corrective actions to keep the consumtion of these materials within limits. They would now urge upon SAIL to ensure strict adherence so that the consumption of ingot moulds and bottom plates in brought down further.

Reply of the Government

By taking corrective measures, SAIL has been able to keep the consuption level of ingot moulds and bottom plates within norms during the year 1993-94 as is evident from the Table given below:—

(Unit: Kg/TCs)

	Norms	Actual (1993-94)
Ingot Mould	26.5	25.34
Bottom Plate	4.9	6.06
	31.4	31.40

Following actions have been taken by SAIL to further improve the consumption rate:—

(i) Edging of mould is ensured so that they do not fail prematurely.

(ii) Also, annealing of the mould is done to get increased life of the mould.

Comments of Audit

Against the norms of 31.4 Kg. per tonne of steel produced the actual consumption of ingot mould and bottom plates has gone up in 1994-95 to 33.73 Kg./T (ingot mould 27.41 Kg./T and bottom plates 6.32 Kg./T.)

Further reply by Government

To meet the customer's demand, higher size moulds (28 tonne) were used whose life is less than that of smaller size. Measures are being taken by SAIL to improve the life of such moulds which will control the consumption.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II dated 14.2.1996]

Comments of the Committee

(Please *see* paragraph No. 13 of Chapter I of the Report).

Recommendation Sl. No. 16 (Paragraph No. 3.32)

The requirement of iron ore for Bokaro Steel Plant is mainly met by Kiriburu and Meghataburu captive mines of Raw Material Division of SAIL. It is distressing to find that during the period 1979-80 to 1991-92 the utilisation of Kiriburu Mine ranged between 40.35% to 64.50% while it was 8.05% to 55.21% in the case of Meghataburu Mine. Low production of iron ore was one of the reasons for purchase of substantial quantity of

ore at higher cost involving additional expenditure of Rs. 61.92 crores during 1980-81 to 1990-91 to avoid loss of production in steel plant. The Committee strongly urge upon SAIL to ensure availability of adequate equipments and its maintenance at the mines to facilitate increased utilisation of iron ore mines.

Reply of the Government

The following steps have been taken by SAIL to ensure availability of adequate equipments and their maintenance at the Mines to facilitate increased utilisation of Iron Ore Mines:—

(a) Inspection schedules have been introduced and equipment are being inspected periodically. Maintenance is being carried out as per the report generated by the Inspection schedules. Replacement of the equipment is being done as per the norm set for each machine.

(b) A proposal has been moved for putting up a Central Base Repair Shop for improving the availability of equipments at Kiriburu Iron Ore Mine (KIOM) and Meghataburu Iron Ore Mine (MIOM) complex. Negotiations for acquiring land is in progress.

Comments of Audit

As per the decision taken by Mgt. in Oct., 95 the existing Repair Shop in Bolani Ore Mines would be modernised to cater to the needs of Kiriburu/Meghataburu/Barsua and Gua Iron Ore Mines. the implementation work has not yet been started (Oct., 95).

Further Reply by the Government

The job of repairing of equipment for Kiriburu Iron Ore Mines (KIOM), Meghataburu Iron Ore Mines (MIOM), Barsua Iron Ore Mines (BIM) and Gua Iron Ore Mines (GOM) has already started from the existing repair shop of BOM which is going to be modernised and converted to Central Base Repair Shop. the report of CET, Ranchi for Central Base Repair Shop has already been received by SAIL and is being scrutinised for procurement action of equipment to be installed in the base repair shop.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II dated 14.2.1996]

Recommendation Sl. No. 17 (Paragraph No. 3.33)

Another problem due to which purchase of iron ore had to be made from outside was stated to be the inability of Railways to move adequate wagons from the captive mines due to the single track steep gradient railway line between Kiriburu/Meghatuburu—Bandamunda section. The Committee are, however, astonished to observe that though the lower availability of Railway wagons persisted right from 1972 when Bokaro Steel started taking ore from Kiriburu, the availability has now only gone upto 4.6 Box "N" rakes per day to move iron ore from Kiriburu-Meghatuburu mines complex to BSL. The Committee recommend that as

pointed elsewhere in this Report the matter regarding the availability of Railway wagons and their movement should be taken up right at the highest level and a permanent solution found out. The Commitee would like to be informed of the outcome of the matter.

Reply of the Government

The problem concerning non availability of Railway Wagons in adequate numbers is taken up regularly with Railway Board.

However, the following measures have been initiated by SAIL for permanent solution to the availability of supply of adequate rakes for movement of iron ore to Bokaro Steel Plant:—

(a) Regular contact with the Railways at the higher level is being carried out for improvement of the supply of rakes. A Cell has been created at Head Office (RMD) to co-ordinate the rail movement.

(b) Budget provision has been made in RMD budget for electrification of Kiriburu/Meghataburu Railway siding at RMD. Railways have initiated action to electrify the route Kiriburu/ Meghatuburu—Karampada—Roxy—Bandamunda section of SE Railways.

(c) SAIL has decided to procure six rakes of BOX-N wagons under Railway's Own Your Wagons Scheme for transporting Iron Ore from Kiriburu and Meghataburu Mines to Bokaro Steel Plant. Tender documents are under preparation. Rakes are expected to be procured within seven to eight months time.

Comments of Audit

The availability of wagons during 1994-95 was 4.4 rakes per day.

Further Reply by Government

Availability of rakes at KIOM-MIOM complex during the year 1994-95 was 4.4 rakes per day. The position has further improved and the present supply position is 4.6 rakes per day for the year 1995-96 upto the period of January, 1996.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II dated 14.2.1996]

Recommendations Sl. Nos. 18, 19 & 20 (Paragraph Nos. 3.34, 3.35 & 3.36)

One of the contracts for development stipulated a ceiling of 5% on the escalation. But the Committee are dismayed to find that the ceiling was withdrawn and cost over-run beyond 5% and to the extent of Rs. 10.46 crores was incurred.

The original cost of the project had been revised to Rs. 121.94 crores only after a detailed study by various Committees involving change in design, scope and qualities of work. It is strange that inspite of such a detailed study having been done before the cost was approved, the work was subsequently stopped by EPI, one of the major contractors mainly on

the plea of difficulties in working conditions and under-estimation of scope of work. BSL also readily agreed to their condition and waived the 5% ceiling on escalation. The Committee are unhappy over the haste on the part of BSL in waiving the ceiling clause which resulted in extra expenditure of Rs. 10.46 crores. They desire that in future, the company should be more vigilant in enforcing the contract. The Committee are astonished to observe that though an Enquiry Committee held BSL, EPI and other implementing agencies responsible for the cost escalation, no further action was taken by the Ministry to fix the responsibility and the concerned Ministries were simply informed of the fact. The Committee desire that a thorough probe should be conducted in regard to implementation of this project and agencies/persons responsible should be identified to avoid recurrence of such cases in future.

The Committee express their displeasure over the fact that the recommendations of the Enquiry Committee (Banerjee Committee) regarding cost and time over-run on Meghataburu Iron Ore Mines are yet to be implemented. Recommendations of the Technical Committee constituted in pursuance of the Enquiry Committee recommendations for suggesting measures for improving productivity of mines are still under finalisation. The Committee desire that the Banerjee Committee recommendations should be implemented without delay under intimation to them.

Reply of the Government

The compelling circumstances leading to withdrawal of ceiling of 5% on escalation, in a nutshell, were:—

(1) Change in design and increase in scope of work due to sophistication in system more than that envisaged in the contract.

(2) (i) Working difficulties experienced on account of steep slope of the hill.

(ii) Managing, handling and stringent conditions imposed by Forest and Mines Deptts. of the State Govt. during construction stage.

(iii) Under-estimation of scope of work.

In this connection, it may be stated that EPI, a Public Sector Undertaking, pleaded its inability to continue with the work unless relaxations were given. In the interest of the work getting completed in time, midway through the project and bearing in mind the change in scope and design of work etc., Bokaro took a decision to remove the ceiling clause.

While considering the Revised Cost Estimates (RCE) of the Meghataburu Iron Ore Project (MIOP) in 1986, it was noted that there was a cost over-run of Rs. 70.55 crores, being the difference between the original sanctioned estimate of Rs. 51.39 crores (first quarter 1977 base) and the revised cost estimate of Rs. 121.94 crores (3rd quarter 1985 base) sanctioned by Government. In constant Rupee terms, the final

cost stood at Rs. 61 crores, representing a real cost over-run of Rs. 10 crores and a time over-run of about 65 months in completion of the project.

While processing the RCE, Ministry of Steel and Mines viewed that this was a fit case which required more detailed enquiry to determine the causes of delay and to fix responsibility. This was *inter-alia* approved by the Cabinet Committee on Economic Affairs (CCEA).

Accordingly an Enquiry Committee was constituted in May, 1987, under the Chairmanship of Shri A.N. Banerjee, former CMD, Central Mine Planning and Design Institute Limited, Ranchi, with a representative of the Department of Public Enterprises as Member, in terms of CCEA directions. The Enquiry Committee submitted its report in May, 1988.

The report of the Enquiry Committee with its findings and recommendations was examined in consultation with the concerned agencies. Based on this examination of the report of the Enquiry Committee, Department of Steel took the following actions:—

(i) Department of Steel found the concerned agencies *viz.* Bokaro Steel Plant (BSL), National Mineral Development Corporation (NMDC), Metallurgical & Engineering Consultants (India) Limited (MECON), Mining and Allied Machinery Corporation Limited (MAMC), Engineering Projects India Limited (EPI) and South Eastern Railway (SER) to be jointly responsible for the time and cost over-runs of the MIOP, though it had not been found feasible to apportion the responsibility in detail among these different agencies. Therefore, the Department of Steel advised these concerned agencies about their joint responsibility for the slippages and the concerned Ministries were requested to oversee evolution of the suitable action plan to avoid repetition of the MIOP experience.

(ii) A Technical Committee, as suggested by the Enquiry Committee, was set up in SAIL to reconcile the differences among different agencies on technical details and suggest appropriate measures to optimise the production and to reach the projected level of capacity utilisation based on which the necessary corrective actions would be taken by SAIL.

(iii) SAIL was advised to follow a definite strategy to ensure timely completion of projects in future to avoid time and cost over-runs.

This position was placed before the CCEA in a Note and the CCEA noted the position in its meeting in May, 1990.

Some of the interim suggestions given by the Technical Committee like introduction of slow speed classifiers have been implemented by SAIL. Status of other recommendations is given:—

1. Action is in hand to modify Grizzly at the Hopper of Primary crusher to avoid jamming.

2. Constant use of dozers at Primary and Secondary Stockpile has commenced to take care of poor flowability of material.

3. Chute liners in the plant need modification to avoid jamming at different transfer points. Some of the chutes have been modified.

4. Constant de-silting of Kumdi Dam for better availability of water commenced on regular basis.

5. Characterisation of the representative samples for introduction of new equipment by dove tailing the new flow sheet with the existing plant to improve recovery of fines. Issue is being sorted out in consultation with RDCIS and CET.

Comments of Audit

No Comments

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II, Dated 14.2.1996.]

Recommendation (Sl. No. 22, (Paragraph No. 3.38)

The Committee are unhappy over the tardy disposal of stock of non-moving and surplus items. Only 315 surplus items of value of Rs. 1.72 crores were disposed off during 1993-94 (upto Sept. 1993) and 47789 items were lying surplus, valued at Rs. 23.75 crores. The Committee desire that the level of surplus stores and spares should be brought within the prescribed limits within three months of the presentation of this report. They would also like to be furnished with figures showing the extent to which discrepancies in the stock of raw material have been brought down after the implementation of recommendations of the Committee constituted for this purpose. In the case of coal, they suggest that the electronic weigh-bridges should also be put up in the case of indigenous coal as in the case of imported coal, in order to eliminate the discrepancies on this account.

Reply of the Government

The surplus items numbering 47789 valued at Rs. 23.75 crores as on 30.9.93 have been brought down by SAIL to 38418 items valued at Rs. 14.70 crores as on 31.1.95 due to efforts of a special "Surplus Identification & Disposal Group" (SID) formed in the Material Management Deptt. The SID group interacted with external and internal agencies as detailed below:—

(i) Calling Open Tenders and also Global Tenders for disposal of various items including "rolls".

(ii) Arranging public auction through MSTC in important cities exclusively for surplus items.

(iii) Contact with other users such as Chittaranjan Locomotive Works; BEML; Port Trusts; State Electricity Boards and Eastern Transport Association (for surplus spares of obsolete vehicles

such as bedford and Fargo).

(iv) Contact with other SAIL units and TISCO.

(v) Exhibition of surplus items in Calcutta under the auspices of IIMM, Calcutta for wide publicity of surplus items available with Bokaro Steel Plant.

(vi) Internal exhibition in plant to create "awareness" amongst the internal users about availability of the surplus materials.

(vii) Regular inter-action with the Shop-floor officer. This has resulted in a large number of items getting drawn and used internally.

Of this total reduction of Rs. 9.05 crores, surplus stores worth Rs. 3.87 crores were disposed of externally and Rs. 5.18 crores by way of internal consumption during the period October, 1993 to January, 1995.

The surplus stores are mainly insurance spares received alongwith the equipments for their proper maintenance. Out of these spares, some of the spares are declared surplus every year. Technological changes also render spares surplus. Thus while there is no such prescribed limit for surplus stores, the disposal action in respect of surplus stores is a continuous process in SAIL plants including BSL. Efforts are, therefore, on for disposal of the balance items.

After implementation of the majority of the recommendations of the Committee constituted for this, as approved by Board of Directors in July, 91) the descrepancies in the stock of major raw-materials are being gradually brought down. A statement showing the shortages of major raw-materials for the years 1989-90 to 1993-94 *vis-a-vis* norms are furnished in Annexure-II. It would be seen from the Annexure-II that there is a general trend of reduction of shortages in respect of major raw-materials with reference to the norms laid down. Approval of the competent authority for shortages beyond norms is obtained after due investigation.

Three Electronic Weighbridges have been installed/commissioned for weighment of indigenous coal between Feb. '90 and July '91, as detailed below:

Weighbridge No.	Date of Commissioning
SWS No. 1	FEB. '90
SWS No 2	FEB. '90
SWS No 3	JULY '91

In addition, in order to arrest the shortages of imported coal, following actions have been taken:

(a) Escorting the rakes for checking pilferage enroutes is under examination.

(b) Standardisation of the loading capacity of wagons is also under examination.

Comments of Audit

The value of surplus items as on 31.1.1995 was Rs. 19.92 crores and not Rs. 14.70 crores. However, the position of surplus stores as on 30.9.95 was Rs. 17.56 crores as detailed below:—

	(Figures in Rs./crores)
Op. balance as on (1.4.94)	22.74
Issues during the year 1994-95	2.88
	19.86
Add: Fresh surplus declared (1.4.94 to 30.9.95)	0.04
	19.90
Issue/consumption from 1.4.95 to 30.9.95	2.34
	17.56

The present position of shortage in respect of various raw-materials has been indicated in our comments against Appendix-II.

Further Reply by Government

The discrepancy in the value of surplus items was due to the fact that items worth Rs. 5.18 crores earlier deleted from the surplus list were again brought forward as per Management decision. Identification and disposal of surplus stores is an ongoing process and certain materials will get included/excluded in the surplus list depending upon suitability or unsuitability of their use.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II, Dated 14.2.1996]

Recommendation Sl.No. 23 (Paragraph No. 4.15)

While the Committee appreciate that Bokaro Steel Plant has been earning profits since 1981-82 consistently and the cumulative profit was Rs. 1687 crores as on 31st March, 1993, but the painful fact remains that had the production been upto the rated capacity, the profits would have been higher by at least Rs. 600 crores. The factors due to which this has not been possible such as quality of coal and other raw materials, availability of power and Railway wagons have been dealt with by the Committee in different sections of this Report. The Committee have received an unmistakable impression that if the causes for lower capacity utilisation like defects in equipments etc. could have been identified early and quick remedial actions taken, much of the ills, which the plant had to suffer from for a long time, could have been avoided. They expect that with the use of imported coal, the reported improvement in the availability

of power and wagons and the various other remedial steps underway, the plant would now be able to further step up the production and increase its profitability.

Reply of the Government

All out efforts have been made by SAIL to increase the productivity in the Steel Plant. In particular, in recent years, profitability has gone down in coke-ovens on account of ageing batteries and poor equipment condition. Following measures have been taken in coke-ovens to increase the equipment availability and increase the BF coke output:—

(a) Battery No. 8 has been commissioned on 21.9.93, as a reserve battery;

(b) Battery No. 4 has been taken down for re-building;

(c) Major repairs have been carried out in battery Nos. 5 & 6;

(d) Cold campaign repair is in progress in battery No. 1;

(e) Timely capital repair and preventive maintenance of all the equipments is ensured for better availability;

(f) Regarding coal, proportion of imported coal in blend has ben kept around 43% during 1994-95. It is proposed to increase it to 50% during 1995-96.

(g) Semi-finished products and coke has been transferred from sister steel plants to BSL for optimum utilisation of its production facilities.

(h) SAIL Board has approved in principle, the proposal for introduction of Coal Dust Injection in Blast Furnaces in their 204th meeting held on 20.2.95. Offers from the Bidders have been received and are under evaluation and expected to be finalised by December, 1995.

The production and profitability in the Steel Plant has generally shown an upward trend in recent years, as would be evident from the following broad datas:—

Production (M/T)

	1991-92	1992-93	1993-94
Hot Metal	3.673	3.856	4.040
Skip Sinter	4.353	4.672	5.066
Ingot Steel	3.417	3.589	3.712
I/Rolling (S/Mill)	3.216	3.368	3.426
BF Coke	2.448	2.564	2.348
Saleable Steel	2.730	2.998	3.205

Profitability	
1991-92	Rs. 230.45 crores
1992-93	Rs. 379.84 crores
1993-94	Rs. 467.82 crores
Accumulated Profit:—	
upto 1992-93	Rs. 1644.33 crores
upto 1993-94	Rs. 2112.15 crores

Comments of Audit

The Production during 1994-95 was as under:—

(In Million Tonnes)	
Hot Metal	: 4.090
Skip Sinter	: 4.917
Ingot Steel	: 3.656
Ingot Rolling	: 3.443
B.F. Coke	: 2.093
Saleable Steel	: 3.168

It would be seen from above that except hot metal and ingot rolling, there was downward trend in all other products.

Further Reply by Government

Reasons for shortfall in production of the following items in 1994-95 as compared 1993-94 were as under:—

BF Coke—Poor oven availability due to aging of batteries.

Skip Sinter— (i) Production regulated as per burden proportioning at Blast furnaces. (ii) Power restrictions imposed by DVC.

Ingot Steel— At times hot metal shortage during capital repairs of Blast Furnaces.

Saleable Steel—Restriction in power supply from DVC resulted in loss of production of 40,144 tonnes.

[Ministry of Steel OM No. 9 (1)/95/BSL/SAIL-II DATED 14.2.1996.]

Comments of the Committee

(Please *see* paragraph No. 16 of Chapter I of the Report)

Recommendation Sl. No. 24 (Paragraph No. 4.16)

According to the present pricing policy of steel, there is no control on prices being exercised by Government or any of its agencies. The ex-works prices of steel are fixed by the manufacturers taking into account the capacity of the market to absorb the price. Steel development Fund,

engineering Goods export assistance Fund and other pool funds are added to the ex-works prices. The Committee have been informed that as a result of this policy SAIL has not been able even to compensate fully for the increase in input costs. Due to the ceiling of Rs. 1210/- per tonne on freight also, the company has to suffer loss in some cases. Apart from this, the reduction in import duties from 80% to 50% has adversely affected the steel industry as a whole. The matter is stated to have been taken up with the Ministry of Finance. The Committee would recommend that the matter should be examined in its entirety and they be informed of the final decision arrived at. At the same time SAIL should also gear up itself to the new situation and make concerted efforts to reduce the input costs so that its prices remain competitive.

Reply of the Government

The issue regarding restructuring of custom duty rates has been taken up with the Ministry of Finance keeping in view the interests of steel producers and also consumers of steel. The custom duty on steel imports has been reduced to a maximum to 40% in the Budget of 1995-96. However, even at the current rate of duty average landed cost of import of almost all items of steel is more than ex-sockyard price of SAIL.

The Steel Development Fund levy on iron and steel products has been abolished w.e.f. 21.4.1994. Government is also considering withdrawal of Engineering Goods Export Assistance Fund (EGEAF) levy in consultation with concerned Ministries. It has, however, been decided that the ceiling of freight cost of iron and steel materials will not be discontinued presently.

SAIL has geared itself to meet the changing environment needs. To remain competitive it has further streamlined its operations and intensified cost reduction efforts. Customer has become the focus of its strategies and customer satisfaction the ultimate goal. Production is continuously tuned to suit customers requirements.

To reduce input cost, following measures have been taken by SAIL:—

(a) Modernisation and technical upgradation of the plants and equipments through replacements of outdated open-heart furnaces by energy-efficient LD converters and installation of continuous casting facilities. This will improve techno-economic parameters, such as,
(i) reduction in energy consumption;
(ii) Improvement in productivity of Blast Furnaces, finishing mills etc.;
(iii) improving quality of products;
(iv) production of value added products etc.

(b) Monitoring of cost control/cost reduction projects and sending periodical reports to top Management.

(c) conduct of Cost-awareness programmes.

(d) Monthly cost meetings with HODs and key officers of major departments to discuss and identify the areas of concern.

(e) Variance analysis of cost of production of major products and periodical discussion with the HODs for corrective action.

Comments of Audit

No Comments

[Ministry of Steel OM No. 9 (1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 26 (Paragraph No. 5.39)

Bokaro Steel Plant has developed its unit corporate plan which has been incorporated in the corporate plan of SAIL upto 2005. Out of a capacity of 19 million tonnes envisaged for SAIL by 2005 AD, Bokaro Steel Plant aims at a capacity of 5.25 million tonnes. In order to achieve this capacity Bokaro Steel Plant proposed to Government modernisation in two stages, Stage-I for going upto capacity of 4.5 million tonnes and Stage-II for going upto a capacity of 5.25 million tonnes. But due to constraints of resources Government gave its approval in July, 1993 to Stage-I only with cost estimates of Rs. 1625.79 crores, with completion schedule of 48 months *i.e.* by July, 1997. This stage envisages phasing out of ingot casting and slabbing Mill and introduction of 100% continuous casting. The Committee expect that SAIL would have learnt lessons from past experience and that Stage-I would be completed within the stipulated cost and time schedule. They are, however, concerned to note that no corporate proposal has yet been submitted to Government for Stage-II of modernisation. The Committee need hardly emphasise the need for timely action in regard to Stage-II so as to achieve the envisaged capacity by 2005 AD.

Reply of the Government

All out efforts are in hand to complete Modernisation (Stage-I) programme within the stipulated cost and time frame by SAIL. At the moment, implementation of different global packages are progressing as per schedule.

Phasing out of ingot casting and slabbing mill and introduction of 100% continuous casting was envisaged after completion of Stage-II modernisation in the original proposal. The Stage-II proposal is being re-formulated.

Comments of Audit

No Comments

[Ministry of Steel OM No. 9 (1)/95/BSL/SAIL-II Dated 14.2.1996]

Comments of the Committee

(Please *see* paragraph No. 19 of Chapter I of the Report)

Recommendation Sl. No. 28 (Paragraph No. 5.41)

The Management of Bokaro Steel Plant informed Audit in June, 1991 that the level of technical and non-technical manpower employed already was adequate and no additional manpower would be recruited to achieve production of 4 million tonnes. The Committee are dismayed to note that inspite of this, the manpower continued to increase persistently and it was 48504 as on 1/1/1994 against 46553 as on 31/3/1991. This is despite the claim that there is a strict control on manpower requirements. The Committee, therefore, suggest that a fresh assessment of the manpower requirement of the plant should be made and efforts be made to keep the manpower to the optimum level.

Reply of the Government

The figure of 46553 as on 31.3.1991 is that of regular manpower *(i.e.* excluding Trainees and Casual). The figure of 48504 as on 1.1.1994 is that of total manpower *i.e.* including Trainees and casual.

The manpower at Bokaro Steel Plant shows a declining trend as may be seen from the following data:—

	Manpower Position Including Trainees & Casuals
31.3.92	48341
31.3.93	48228
31.3.94	48075

While there is strict control on fresh intake of manpower slight increase, here and there, is unavoidable bacause of:

(i) recruitment of teachers for new CBSE pattern Schools run by the Company;

(ii) appointments made on compassionate grounds (widows/dependents of deceased employees);

(iii) SC/ST recruited against backlog posts reserved for them; and

(iv) Induction of Management Trainees for correct age and skill mix-up in the Plant.

The manpower assessment exercise is taken up every year and based on

the requirement and separations the recruitment for the year is decided. The plan thus prepared gets approved by the Board alongwith Annual Budget.

Comments of Audit

No Comments

[Ministry of Steel OM No. 9 (1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 29 (Paragraph No. 5.42)

The committee have been informed that one of the problems which the plant has been facing was inconsistent power supply, of late, there has been some improvement in power supply from Damodar Valley Corporation. However, the loss of production due to the inconsistency in power supply during the years 1991-92 to 1993-94 has been 71,560 tonnes; 1,93,900 tonnes and 35,620 tonnes respectively. The Committee desire that the setting up of a captive power plant at Bokaro for un-interrupted power supply which is presently under consideration of SAIL, should be expedited. besides, efforts should be further intensified for reducing the energy consumption rates which were higher even in 1992-93 compared to detailed Project Report norms.

Reply of the Government

Following actions have been initiated by SAIL to increase availability and reliability of power supply to Bokaro Steel Plant:—

- — Renovation of two Boilers of Thermal Power Plant;
- — Installation of on-line crusher in coal handling plant of power plant;
- — Replacement of relays and protection coordination equipment in the three feeders from Chandrapura Thermal Power Station of DVC to Bokaro Steel Plant;

In addition following actions are being planned by SAIL to increase power availability both in quantitative and qualitative terms:—

- — Renovation of remaining three boilers of Thermal Power Plant;
- — Enhancement of capacity of Ball and race mills of Captive Power Plant by incorporating a mill upgrade system;
- — Upgradation of power supply system from DVC to 220 KV from present level of 132 KV;
- — The proposal for setting up of a 30 MW Gas Turbine power plant is to ensure emergency power supply in case of Grid failure. Its Feasibility is under examination. However, the overall power requirement for BSL will be re-assessed during formulation of Stage-II Modernisation of BSL.

Reduction in energy consumption is one main aim of modernisation of

Bokaro Steel Plant which is going on as per schedule. The energy consumption rates have however, already shown a downward trend as shown below:—

	1991-92	1992-93	1993-94
Coke rate Kg/thm (DPR norm 720)	660	663	640
Total energy Cons. Per TCS Gcal/TCS (DPR norm 8.537)	8.862	8.841	8.765

Following steps are being taken to further reduce the energy consumption rate in the steel plant:—

(i) Repair and rebuilding of coke oven batteries;

(ii) Reduction of heat losses from soaking pits and reheating furnaces;

(iii) Improvement of steam line insulation;

(iv) elimination of utility leakages;

(v) Control of idle running of equipment.

Comments of Audit

No Comments

[Ministry of Steel OM No. 9 (1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 30 (Paragraph No. 5.43)

As has been brought out in the preceding chapters of this report, the poor quality of coal has been a major handicap in stepping up production of steel at Bokaro. The Committee are given to understand that at a discussion between the Ministry of Steel and Ministry of Coal, it was concluded that for ensuring best quality of Coal, SAIL should take over these washeries alongwith the coal mines. It is surprising that inspite of Bokaro Steel Plant suffering from poor quality of coal over the years and it being known that SAIL would be to produce the desired quality, why the issue is still being kept open and status quo being maintained. The Committee desire that a firm decision in the matter be taken soon and whichever Ministry retains control of the coal mines and washeries, all out efforts should be made for improving the quality of coal so that huge amounts being spent on import of coal could be reduced to the minimum. The Committee also desired that SAIL should also explore the possibility of having their own captive mines.

Reply of the Government

Discussions by SAIL were going on with Coal India Ltd. for operating joint venture mines and washeries for supply of good/adequate quality of

coal to SAIL steel plants. Finally CIL Board agreed to offer Parbatpur, Mahal, Sectanala and Tasra Blocks for development by SAIL for captive use. They referred to the Ministry of Coal for further action. The Screening Committee meeting of the Ministry of Coal was held on 4.10.1995 in which SAIL also participated. The Committee decided to identify Parbatpur, Mahal, Sitanala and Tasra Blocks located in Jharia Coalfield for captive development by SAIL.

For medium coking coal/boiler coal and Cold Dust Injection, following efforts are on:

Medium Coking Coal

The possibility of development and operation of coal blocks located at Kotre-Basantpur, Pachme, Lalgarh, Kedla, Parej, Tapin, Gose, Gose-east Jharkhand, Loiya and Choritanr-Talaiya and associated washeries in Hazaribagh area under overall supervision of a joint management group with Members of CIL and SAIL will be examined after techno-economic evaluation of the Blocks which is in progress.

Boiler Coal

SAIL has already applied to the Ministry of Coal to allocate the following blocks for meeting the boiler coal requirement:

(a) Ardhagram and Gourandih blocks in Raniganj Coalfield Command area, ECL;

(b) utkal-II block in Talcher Coalfield command, MCL;

(c) Chaturdhara block in Ib Valley Coalfield Command area, MCL;

(d) Madanpur and Tara blocks in Hasdeo-Arand Coalfield Command area, SECL

Coal Dust Injection (CDI)

A Joint Committee of SAIL and CIL is working for locating suitable indigenous CDI blocks nearest to the required specifications of SAIL plants.

In addition the Ministry of Steel have also taken up this issue with the Ministry of Coal for their consideration.

Comments of Audit

No Comments

[Ministry of Steel OM NO. 9(1)/95/BSL/SAIL-II Dated 14.2.1996]

Recommendation Sl. No. 31 (Paragraph No. 5.44)

The Committee are concerned to learn that there was a short receipt of 2.05 lakh tonnes of imported coal at Paradeep and Haldia ports during 1985-86 to 1991-92 resulting in extra payment of Rs. 31.73 crores. What is more surprising is that no responsibility was fixed for such short receipt of coal. The Committee desire that the matter should

be enquired into and action taken against the persons found guilty. They also desire that fullproof arrangements be made so as to completely eliminate such short receipt in future.

Reply of the Government

The percent shortage of imported coal in the recent years, is as under:

Norm	1991-92	1992-93	1993-94
3%	2.12%	1.27%	3.97%

It would appear from the above that the shortage was contained within norm during 1991-92 & 1992-93 however, it slightly went up during 1993-94.

As directed by the Hon'ble Committee a high-level Committee was constituted by Managing Director, Bokaro Steel Plant to go into detail of the matter and fix responsibility, if any, on the erring persons.

The conclusions of the Committee are:

1. Imported coal is being received at Paradeep & Haldia Ports for onward transportation to various units of SAIL by rail. The Material is being shipped from different Ports on volumetric basis.

2. Similar practice is followed at the unloading ports. The RR weight is determined on the basis of the carrying capacity of the wagons. This system does not give allowance for quantum of voids for different sizes of coal.

3. It is normally taking 2-3 days time for the consignment to reach the destination. Frequently, there has been traces of pilferage en-route, since lime spray made at the time of loading was found distorted.

4. At the destination, the coal wagons are passed through Electronic Weighbridges for correct weighment. The shortage is determined w.r.t. RR weight.

5. There is no scope of misuse/pilferage within the Steel Plant. The Committee has, accordingly, concluded that since all possible steps are taken at Plant level, shortage is not due to inaction on the part of any individual(s) on whom responsibility can be fixed.

6. The Committee has also expressed the opinion that shortage problem is because of lack of weighment facilities at the unloading Ports. The Committee has, accordingly, suggested that in the interest of SAIL (since a large quantity of coal is being imported), weighment facilities should be provided at the unloading Ports at the earliest so that Railways may issue clear RRs.

Following actions have been taken by SAIL to minimise/arrest shortages of imported coal:

(a) Strict supervision of wagon loading at the ports;

(b) Matter relating to installation of electronic in-motion weigh-bridges at Vizag, Paradeep and Haldia ports is being taken up with the concerned port authorities. In case they do not agree, SAIL will be seeking Port Authority's permission for installing its own weigh-bridges.

(c) Lime spray is made after loading of wagons;

(d) In all major ports *i.e.*, Haldia, Paradeep and Vizag, right from discharging of the cargo from the Ship till the same is loaded in the Railway wagons, are under the watch and ward of CISF personnel. This security arrangement minimises the chances of pilferage at the ports.

(e) Re-fixing of carrying capacity of BOX-N Wagons has been taken up with the Railways.

(f) M/s, SGS, an independent inspection agency, has been commissioned to survey, investigate and report of likely loss of moisture at various stages, *viz.*,

(i) while stacking at the ports; and

(ii) while being transported in railway wagons.

Comments of Audit

A Committee was constituted by the Co. to investigate the reasons for short receipt of coal and to fix responsibility for the same. However, the Committee in their Report of May, 1995 opined that the shortage of coal was mainly due to lack of weighment facilities at the loading and unloading points. As such no responsibility was fixed.

However, the SAIL Board in its 162nd Meeting held on 4.7.91 (Item 3.13) approved inter alia the following action plan to prevent short receipt of imported coal:

(i) Prior supervision of wagon loading by Transport & Shipping Staff in all shifts.

(ii) The contract with loading contractors should provide for suitable recoveries towards dead freight based on weight found on destination.

However, the contract with the loading contractors does not contain any provision for recoveries of dead freight based on weight found at destination.

The initiative taken by SAIL for installation of weigh-bridge did not yield any result, Vizag Port authorities turned down SAIL's request for

installation of its own weigh-bridge.

In the 162nd meeting of SAIL Board held on 4.7.91, BSL indicated that norm for imported coal shortage would be 3% instead of 2.5% recommended by Apex Committee formed to fix norm till such time the carrying capacity of BOX "N" wagon is calibrated and refixed. However, the norm was not reduced from 3% to 2.5% even in 1994-95.

Further Reply by Government

Prior supervision of wagon loading is being ensured by SAIL.

Regarding recoveries of dead freight from the loading contractors, efforts are being made by SAIL in this direction.

Ministry has no further comments to offer on the comments of CAG regarding Vizag port authorities' turning down of SAIL's request for installation of its own weigh-bridge.

Regarding norms for shortage of imported coal SAIL's experience with the shortages in the imported coal during 1993-94 (3.97%) was otherwise. However, the shortage in imported coal during 1994-95 was only 2.25 % which was well within 2.5%.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II dated, .14.2.96]

Recommendation Sl. No. 32 (Paragraph No. 5.45)

As a result of the examination of the subject, the Committee are constrained to find various lapses as a result of which the performance of Bokaro Steel Plant has not been upto the mark. They desire that responsibility be fixed for such lapses and appropriate action taken against the erring officials.

Reply of the Government

Action Taken Notes in respect of the individual recommendation of the Hon'ble Committee relating to fixation of responsibility have been indicated against paragraph numbers 2.89, 2.93, 3.34, 3.35 & 5.44.

Comments of Audit

The Committee constituted by the Company could not fix responsibility on any individual.

Further Reply by Government

Ministry has no further comments to offer.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II, Dated 14.2.1996]

Comments of the Committee

(Please *see* Paragraph No. 21 of Chapter I of the Report.)

CHAPTER III

RECOMMENDATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF GOVERNMENT'S REPLIES

Recommendation Sl. No. 21 (Paragraph No. 3.37)

The performance of the lime stone mines at Kuteshwar and Bhawanathpur was also below anticipation. During the years 1979-80 to 1991-92 there was shortfall in production at Kuteshwar mines to the extent of 3 million tonnes. The extraction of lime stone was stated to have been low since no investments were made for mechanising the mine due to threat of its inundation from Bansagar Dam. In this connection, the Committee would like to point out that Kuteshwar mines could have been protected simply by putting up a bundh as has now been done and the expenditure of Rs. 8.04 crores on procurement of lime stone could have been avoided. Similarly, Bhawanathpur mines did not achieve the designed capacity of 1.45 million tonnes per annum. The operating cost of the mine was higher than estimated and it did not meet the quality required for Blast Furnace necessitating additional expenditure of Rs. 4.27 crores upto 1991 on purchases from other resources. The Committee have been informed that with the selective mining being resorted to now, Bhawanathpur lime stone can be used for Blast Furnace. Here the Committee would like to caution that with extensive selective mining, the remaining deposits may be rendered completely unsuitable for use in the Blast Furnaces. They would, therefore, suggest that instead the possibility of modifying the Blast Furnaces should be explored in order to make them compatiable with the lime stone available at the mines.

Reply of the Government

The proposal of putting up a bundh to save the Kuteswar Lime Stone deposits form inundation was thought of in 1983 itself when Dr. M. Breznik was appointed as Consultant to suggest measures for protection of the Mines due to construction of Bansagar Dam. Dr. Breznik submitted his report in Jan. 84. He suggested that an earthen bundh of 5 kms. length should be constructed between the mining boundry and river Chotimahanadi—a grouting curtain was to be provided for length of 2.6 kms. to stop the seepage of water thfough the cavity and previous soil.

The work of construction of the Dam is being executed by Bansagar Dam Authority (BDA) and the cost is being shared between SAIL and BDA in equal proportion. The work is still in progress and about Rs. 4 crore has already been spent out of a total estimated expenditure of Rs. 16

crore. During the course of execution of the work, BDA approached SAIL stating that the present method of grouting was insufficient and a new method had to be explored. The new method was to cost about Rs. 18 crore extra. BDA is formulating the strategy for the same. SAIL has already examined the issue and furnished its comments.

In view of the position stated above, it is not possible to mechanise the Kuteshwar Lime Stone Mines till the grouting work, which is in progress, is completed by Bansagar Dam Authority.

The suggestion of the Committee for exploring the possibility of modifying the Blast Furnaces in order to make them compatiable with the lime stone available at Bhawanathpur, has been examined by SAIL. It is not possible to implement the suggestion of the Hon'ble Committee, as the Bhawanathpur lime stone, in general, is very hard and contains higher alkali and silica that only add to problems and tell badly on production and quality both. Techno-economics, therefore, at present, do not permit use of this material directly in blast furnaces. However, the material can be used in little proportion in Sintering Plant, which is being done.

Comments of Audit

The statement of Ministry that the quality of lime stone in Bhawanathpur Mines is not good for quality production of steel and the lime stone from this mine is being used in little proportion in Sintering Plant is correct. However, the techno-economic analysis to find out the possibility and economic viability of modifying the blast furnaces in order to make them compatible with the lime stone available at the mines was not done.

Further Reply by Government

The techno-economic analysis to modify the Blast Furnaces does not appear necessary in view of the fact that lime stone consumption in Blast Furnaces was only 6947 m/t during 1994-95 which works out to 2 kg./tonne of Hot Metal produced. This much quantity can easily be obtained from other sources where silica percentage is less compared to Bhawanathpur.

[Ministry of Steel OM No. 9 (1)/95/BSL/SAIL-II dated, 14.2.1996]

Recommendation Sl. No. 25 (Paragraph No. 4.17)

The Committee have been informed that SAIL, which has an equity base of Rs. 3985.89 crores has submitted a proposal for its financial restructuring to Government in December, 1992. It has proposed that its equity base be reduced by converting a part of the equity to loans, to be paid back to Government and a part to 7% preference shares. SAIL also has a plan of raising Rs. 12,300 crores for investment on modernisation. The restructuring proposal is still under consideration of the Government. The Committee desire that a final decision in the matter should be taken without any further delay.

Reply of the Government

Subsequent to the submission of the financial restructuring proposal by SAIL, following developments have taken place:

— Government had further disinvested its shareholding in SAIL in tranches to financial institutions, employees, individuals etc.

— Government is further disinvesting its shareholding during 1995-96.

— SAIL plans to raise equity funds to the extent of 10% of its present paid-up capital including upto $350 million through Global Depository Receipts (GDRs). The process of due diligence etc. for GDR issue is already in progress. SAIL has sought Govt.'s approval for issue of GDR.

— The Profits of SAIL have also increased from a level of Rs. 423.40 crores in 1992-93 to Rs. 1163.33 crores in 1994-95 thereby improving the resource position of the company.

In view of the above developments, immediate need of capital restructure is not being felt by SAIL.

Comments of Audit

No Comments.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II dated 14.2.1996]

Recommendation Sl. No. 27 (Paragraph No. 5.40)

The Centre for Engineering & Technology (CET) has finalised agreements for two new technologies, one of which is Galvalume technology for producing Zinc-Aluminium coated sheets for better corrosion resistance and higher marketability. The adoption of this technology is expected to result in savings variable cost of production by almost Rs. 1100 per tonne. It is, however, strange to notice that though the technology is scheduled to be implemented at Bokaro Steel Plant in November, 1995, the investment proposals are yet to be formulated. The Committee strongly recommend that in order to avoid any delay in implementation of this cost saving technology, the investment proposals should be formulated and got sanctioned without any further delay. They also desire that final decision in regard to implementation of the other technology *viz.* CAS-OB technology for secondary refining of steel at Bokaro should be expedited.

Reply of the Government

Based on the Feasibility Report prepared by inhouse Consultant CET, a proposal for adoption of Galvalume technology at Hot Dip Galvanising Line was formulated by BSL in March '94 with a completion schedule of 20 months from the date of approval of the project. However, since Galvalume Sheet is a new product to be introduced in the market, it was

considered desirable to conduct a quick market survey through Central Marketing Organisation (CMO) of SAIL, to enable a decision to be taken on the introduction of this technology. CMO's report on "Demand of Galvalume Sheet in India and its Growth Prospects in Future" was prepared in December, 1994.

Meanwhile, the domestic and international prices of Aluminium had peaked and became 1.9 times of Zinc. The technology uses more of aluminium, therefore it became necessary to rework its techno-economy. Based on CMO's market survey report and the revised techno-economics, the proposal for introduction of Galvalume technology in BSL was put up for consideration of SAIL Board.

SAIL Board in May '95 has approved 'in principle' the proposal of Introduction of Galvalume Technology in Hot Dip Galvanising Line of Bokaro Steel Plant with the implementation schedule of 20 month from the date of sanction. The Board resolved that the detailed proposal after firming up the cost by BSL and revised techno-economics based on prevailing Aluminium price should be put up to the Board for final approval.

Tenders are scheduled to be received for installation of this technology at Bokaro Steel Plant by 31st October, 1995. The detailed proposal is likely to be put up to the Board by 31st March, 1996.

The CAS-OB technology for secondary refining of steel is to be implemented in BSP. As regards its implementation of Bokaro, a view is yet to be taken. However, during implementation of Modernisation programme, Laddle Furnace and Laddle Raising Station for secondary refining of steel in SMS-II have been finalised.

The CAS-OB technology for secondary refining of steel is to be implemented in BSP. As regards its implementation at Bokaro Steel Plant, a view is yet to be taken. However, during implementation of Modernisation programme, Laddle Furnace and Laddle Raising Station for secondary refining of steel in SMS-II have been finalised.

Comments of Audit

The implementation programme for introduction of Galvalume Technology in Hot Dip Galvanising line of Bokaro Steel Plant has been deferred by the Management as per prioritisation (December, 1995).

Further Reply by Government

No further comments.

[Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II Dated 14.2.1996]

CHAPTER IV

RECOMMENDATIONS IN RESPECT OF WHICH REPLIES OF GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

Recommendations Sl. No. 4 & 5 (Paragraphs Nos. 2.84 & 2.85)

The Committee are perturbed to observe that the production of steel at Bokaro Steel Plant has been much less than the installed capacity of 4 million tonnes per annum and the shortfall in production during the years 1978 to 1992 amounted to 4.7 million tonnes due to various reasons, such as inconsistent supply of indigenous metallurgical coal, problems of power supply from Damodar Valley Corporation, lack of co-ordination and lack of systematic and sustained programme for replacement or modification of old equipments. Although some improvement in production is stated to have been achieved, it still remains below the installed capacity in respect of ingot steel. 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 appraised of the same.

It is a matter of concern to observe that during the period 1980-81 to 1992-93, the percentage of actual to installed capacity ranged from 37 to 93 in respect of steel ingots and from 62 to 95 in respect of saleable steel. Among other factors the shortfall has been attributed to lower availability of convertors due to premature failure of lining, poor availability of SMS grade lime stone, poor quality of coke and labour problems. The premature failure of lining of the convertors and other technical abnormalities resulted in loss of production of 46.89 lakh tonnes. In order to double the life of convertors and improve the life of lining of convertors, foreign technology was imported at a cost of Rs. 1.80 crores. The Committee are astonished to find that no use of this technology could be made due to non-availability of dry compressed air and nitrogen at Bokaro Steel Plant which were required to operate the chamber pumps and cement carriers. Strangely, this fact was discovered only after the

technology had been imported thus rendering the expenditure of Rs. 1.80 crores infructuous. In fact the objective of doubling the life of the lining of convertors was achieved by changing the life of the lining material during 1991-92 which means the import of foreign technology was not at all necessary. The Committee recommends that in future foreign technology should be imported only after ensuring that it is unavoidable and can be used gainfully in the project for which it is being imported. Apart from the low lining life of convertors the tap to tap time of convertors at Bokaro was also higher compared to norms. Although during 1991-92 and 1992-93, the tap to tap time is stated to have been reduced by using low silicon hot metal, low ash imported coke, close monitoring and feed-back analysis and certain other steps, it still remains well above the norms. The Committee desire that concerted and urgent efforts should be made to bring the tap to tap time within norms.

Reply of the Government

2.84 The concern for lower production expressed by the Hon'ble Committee is appreciated.

In fact improvements in a complex industry like steel are a continuous process and actions to remove constraints, if any are taken as and when identified.

In particular the constraints such as shortage of power and poor quality of coal etc. leading to shortfall in production at Bokaro Steel Plant were identified by SAIL well in time. The following actions were initiated by SAIL to overcome them:

(i) A 3×60 MW captive power plant was sanctioned in 1981 to augment captive generation capacity, which was commissioned in 1986.

(ii) Imported coking coal was used in higher proportions to contain the effect of inconsistent and poor quality of indigenous coking coal. The percentage of imported coal in the blend has been:—

Year	% of Imported Coal
1	2
1983-84	1.4
1984-85	1.9
1985-86	14.5
1986-87	15.7
1987-88	16.4
1988-89	25.8

1	2
1989-90	30.7
1990-91	37.9
1991-92	35.7
1992-93	34.0
1993-94	36.9

The plant went through its stabilisation process after gradual commissioning of various facilities. The last of the blast furnaces was commissioned in June, 1985 and last of the converters in February, 1984. Steel Melting capacity was initially constrained by inadequacy of oxygen. The interim crude steel capacity was only 3.108 MT till additional oxygen facilities were commissioned in later half of 1988-89. Therefore, the year 1989-90 was the first year of full capacity of 4.0 MT.

2.85 On the issue of import of foreign technology, the strategy for technology decision in SAIL has been revised. The new system has been finalised for identification, selection, acquisition and adoption of technology. This system is based on three tier functioning, namely:—

Technology Cell and Technology Groups of Centre for Engineering and Technology (CET)

Experts' Committees for Technology

Corporate Committee for Technology

CET being the nodal agency, will coordinate from the stage of selection/ receiving the proposal on technology to the stage of final approval by the competent authority.

In this process, the concerned agencies will get involved for decision making/implementation. On implementation of the technology, progress will be monitored by CET.

The lining life of converters has been increased by changing the lining materials.

The following steps have been taken by SAIL to improve the Tap to Tap time:—

(i) Better quality of Tap hole material is used to improve the Tap hole life thereby reducing the down time for Tap hole changing;

(ii) Monitoring and feed-back of Blow finish to Blow start time to reduce charge to Tap time ultimately resulting in reduced Tap to Tap time;

(iii) Timely track dozing and mouth ring dropping;

(iv) With reduced silicon content in hot metal, blowing time reduced thereby improving tap to tap time.

The above measures has resulted in reduction in Tap to Tap time as follows:

(Unit/minutes)

On Available Hours	1991-92	1992-93	1993-94
SMS-I	118	112	110
SMS-II	96	89	86

Further, Stage-I Modernisation of BSL also envisages reduction in the tap to tap time to 60 minutes in SMS-II.

Comments of Audit (2.84)

3×60 MW CPP sanctioned in 1981 were actually commissioned on the following dates:

T.G. No. 6 — 27.1.1986

T.G. No. 7 — 16.9.1988

T.G. No. 8 — 31.3.1989

Further Reply by Government

In the reply the year of commissioning of CPP was correctly mentioned as 1986 since the date of commissioning of the first unit is normally taken as the date of commissioning of the project.

Comments of Audit (2.85)

Even after using low silicon hot metal the management could not adhere to the project norms of Tap to Tap time of 60 mts. for SMS-I and 80 mts. for SMS-II in all the years. The tap to tap time in SMS-II increased from 86 mts. in 1993-94 to 90 mts. in 1994-95.

Further Reply by Government

Stage-I Modernisation of BSL envisages reduction in the tap to tap time to 60 minutes in SMS-II. The main reason for increase in tap to tap time in SMS-II from 86 mts. in 1993-94 to 90 mts. in 1994-95 is due to the frequent interruptions as a result of hood leakages. New hood installation is planned by March, 1996.

[Ministry of Steel OM No. 9 (1)/95/BSL/SAIL-II Dated 14.2.1996]

Comments of the Committee

(Please *see* paragraph No. 7 of Chapter I of the Report)

CHAPTER V

RECOMMENDATIONS IN RESPECT OF WHICH FINAL REPLIES OF GOVERNMENT ARE STILL AWAITED

Recommendation Sl. No. 14 (Paragraph No. 2.94)

The Committee are perturbed to find that the production of sulphuric acid ranged from 24.89% to 39.53% only during 1980-81 to 1991-92. In fact the second acid plant commissioned in January, 1980 has been lying idle. The Committee fail to understand why the second plant was set up when the requirement of sulphuric acid could be met by only one plant. What is worse, no action has so far been initiated for disposal of this plant although it has been lying idle since its commissioning in 1980. It was only when the Committee took up Bokaro Steel Plant for examination that the assessment of its present disposable value has been undertaken. The Committee would like this exercise to be completed very soon. Action taken in this regard should be intimated to them within 3 months of presentation of this Report.

Reply of the Government

The 2nd Sulphuric Acid Plant was in production till December 1994 with statutory clearances. Year-wise production figures are furnished in Annexure-I. Having outlived its normal life, write-off of this plant was approved in July '92.

The Sulphuric Acid plant-II was envisaged in DPR since the requirement of acid was estimated at 70,000 MT/Year at 4 MT stage whereas the capacity of acid plant-I was 42,000 MT/Year. In the beginning of '79 when the construction of Acid Plant-II was in an advanced stage and all the equipments had already been brought at site, it was decided to have 4 MT CRM on Hydrochloric acid pickling instead of Sulphuric acid pickling. This decision substantially reduced the requirement of Sulphuric acid for CRM.

Reasons for less production of Sulphuric acid was that, BSL has been producing this material for internal consumption only. The requirement went down substantially since the plant started using 35% to 40% imported coal having less volatile materials in coke-ovens with the result requirement of less coke, i.e., 630—640 kg/THM instead of 680—700 kg/THM, has been achieved. This has resulted in less production of Ammonium Sulphate and consequently less consumption of Sulphuric acid.

The first Sulphuric Acid plant has been sold. The 2nd Sulphuric Acid Plant was in operation with statutory clearances till Dec., 94. Meanwhile, in the Chief Executives, meeting held on 21.12.94, it was decided that due

to shortage of Sulphuric Acid being faced by Durgapur Steel Plant, BSL will continue to operate the old acid plant-II till the new Double. Conservation Double Absorption (DCDA) plant, commissioned in Nov., 94, is stabilised to meet the requirement of DSP also.

Initially the production of Sulphuric Acid from this plant was erratic. The plant has since been stabilised and requirements of Sulphuric Acid of BSL, as well as, DSP are now being met from this new plant. In addition the Melting Section of SAP-II has been upgraded to supply molten Sulphur to new DCDA Plant and as such a part of the SAP-II has been used. The remaining part of SAP-II is in so bad condition that the same cannot be used without additional huge investments. Consequently BSL floated Tender enquiry in Feb. '95 to assess the best disposable value of SAP-II. But there was no response.

As the production from new DCDA Sulphuric Acid plant has now been stabilised, the matter has been reviewed afresh. SAIL (BSL) has again initiated the proposal for disposal of Sulphuric Acid Plant-II in September, 1995.

Comments of Audit

Sale Order for sale of Sulphuric Acid Plant No. 1 was issued in Jan., 95. The purchaser paid the earnest money of Rs. 0.52 lakhs only. He has neither paid sale price of Rs. 92.51 lakhs which was required to be made by 22.01.1995, nor lifted the plant (7.12.1995).

Further Reply by Government

In consultation with Law Department action for forfeiture of Earnest Money has been initiated by SAIL.

[Ministry of Steel OM No. 9 (1)/95/BSL/SAIL-II Dated 14.2.1996]

Comments of the Committee

(Please see paragraph No. 10 of Chapter I of the Report)

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

KAMAL CHAUDHRY,
Chairman,
Committee on Public Undertakings.

APPENDIX-I

Production figures of Sluphuric Acid Plant No. I & II

		(M/T)	
Acid Plant No. I	1977-78	3254	
(Commissioned on 13/2/78)	1978-79	23642	(Part Qty.
	1979-80	24827	for SAP-II)
		51723	
Acid Pland No. II	1980-81	20807	
(Commissioned on 26/1/80)	1981-82	23422	
	1982-83	20911	
	1983-84	25353	
	1984-85	27551	
	1985-86	26836	
	1986-87	23136	
	1987-88	25827	
	1988-89	31023	
	1989-90	33204	
	1990-91	27061	
	1991-92	32074	
	1992-93	34660	(Part Qty. for
	1993-94	30397	DCDA Plant
	1994-95 (Upto 12/94)	21026	Commissioned on 22/11/94)
		403288	

Vetting Remarks by the office of CAG

The production of Acid Plant No. 2 during the year 1987-88 was 25857 M/T and not 25827 M/T. Consequently, the total production would be 403318 M/T instead of 403288 M/T.

Further Reply by Government (Ministry of Steel)

This was a typographical error which is regretted.

[Ministry of Steel OM No.: 9(1)/95/BSL/SAIL-II Dated 14.2.1996]

APPENDIX II

Statement showing the shortages of major raw-materials vis-a-vis norms for the years 1989-90 to 1993-94

Description	Norm	'89-90	'90-91	'91-92	'92-93	'93-94
	(P E R C E N T A G E O F L O S S)					
1. Iron Ore Fines	4%	4.80%	1.50%	5.62%	(+) 0.71%	0.11%
2. Iron Ore Lumps	3%	5.23%	3.76%	5.86%	4.48%	0.76%
3. Manganeze Ore	2%	7.84%	5.76%	12.48%	10.98%	1.47%
4. Limestone BF	1.5%	(+) 20.3%	(+) 11.8%	(+) 9.6%	0.05%	0.27%
5. Dolo Chips	1.5%	3.61%	(+) 32.1%	(+) 1.5%	(+) 0.03%	0.38%
6. Limestone SMS	1.5%	(+) 36.7%	(+) 12.5%	(+) 1.5%	(+) 12.4%	(+) 1.3%
7. Coking Coal	3%	5.22%	3.39%	3.49%	1.65%	2.97%
8. Imported Coal	3%	4.89%	4.53%	2.12%	1.27%	3.97%
9. Middling Coal	2%	(+) 0.92%	(+) 1.4%	(+) 1.7%	(+) 0.61%	0.04%
10. Sulphur	2%	2.86%	0.11%	(+) 0.07%	9.85%	12.61%

NOTE: Excess %GE been indicated by pre-fix (+).

.....Vetting Remarks by the office of C&AG

The statement of the Ministry that shortage of major raw-materials were gradually brought down after implementation of majority of the recommendations of the Committee is correct.

(a) However shortages in respect of the following materials increased during 1994-95 as compared to the previous year. (The percentage of shortage is given in the bracket)

(i) Iron Ore Fine (2%)
(ii) Iron Ore Lump (1.40%)
(iii) Manganese Ore (2.20%)
(iv) Limestone B.F. (0.35%)
(v) Dolochips (1.23%)
(vi) Limestone SMS (1.22% in 1993-94, there was surplus (1.3%)

(b) In respect of the following materials the shortage exceeded the norms in 94-95:

(i) Manganese Ore
(ii) Middling Coal
(iii) Sulphur

Further Reply by Government (Ministry of Steel)

Ministry has no further Comments to offer against the first para of the vetting remarks of CAG.

The shortages reported by audit are within norm for iron ore fines; iron ore lumps; limestone BF; dolo-chips and limestone SMS. In Mg. ore, however, it has slightly increased by 0.2% over the norm.

In respect of vetting remarks of CAG at para (b) above, Ministry's comments are as under:

For Mg. ore position has been indicated above. For Middling Coal (3.63%) and sulphur (8.29%), the shortages have shown downward trend compared to 1993-94.

(Ministry of Steel OM No. 9(1)/95/BSL/SAIL-II Dated 14.2.1996)

APPENDIX III

COMMITTEE ON PUBLIC UNDERTAKINGS

Minutes of the 43rd sitting of Committee on Public Undertakings (1995-96) held on 28th February, 1996.

The Committee sat from 1500 to 1535 hrs.

PRESENT

Sqn. Ldr. Kamal Chaudhry — *Chairman*

MEMBERS

2. Shri E. Ahmed
3. Prof. Susanta Chakraborty
4. Shri Oscar Fernandes
5. Smt. Sheela Gautam
6. Shri Anna Joshi
7. Shri Balraj Passi
8. Dr. A.K. Patel
9. Shri Jagesh Desai
10. Shri Deepankar Mukherjee
11. Shri Vayalar Ravi
12. Shri Krishan Lal Sharma

SECRETARIAT

1. Shri G.C. Malhotra — *Joint Secretary*
2. Smt. P.K. Sandhu — *Director*
3. Shri P.K. Grover — *Under Secretary*

OFFICE OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

1. Dr. B.P. Mathur — Addl. Dy. Audit Board — C&AG-cum-Chairman.
2. Shri R.N. Ghosh — Director (Commercial)

I. Consideration and Adoption of Draft Action Taken Report on Steel Authority of India Limited—Bokaro Steel Plant.

The Committee considered the Draft Report on Action Taken by Government on the recommendations contained in the 37th Report of the Committee on Public Undertaking (1994-95) on Steel Authority of India Limited—Bokaro Steel Plant and adopted the same.

2. .. ..

3. Several Members of the Committee appreciated the quality of the draft reports. Agreeing with the views expressed by the various Members. The Chairman stated that this challenging task could be accomplished because of the untiring and excellent assistance provided by the Secretariat. The Committee also decided to place their appreciation on record.

4. The Committee authorised the Chairman to finalise the draft reports on the basis of factual verification by the Ministries/Undertakings concerned and Audit and to present the same to Parliament.

The Committee then adjourned

APPENDIX IV

(*Vide* Para 3 of Introduction)

Analysis of the Action Taken by Government on the recommendations contained in the 37th Report of the Committee on Public Undertakings (Tenth Lok Sabha) on Steel Authority of India Limited—Bokaro Steel Plant.

I	Total number of recommendations	32
II	Recommendations that have been accepted by Government (vide recommendations at Sl. Nos. 1, 2,3,6, to 13,15 to 20, 22 to 24, 26 and 28 to 32)	26
	Percentage to Total	81.25%
III	Recommendations which the Committee do not desire to pursue in view of Government's replies (vide recommendations at Sl. Nos. 21, 25 and 27)	3
	Percentage to Total	9.38%
IV	Recommendations in respect of which replies of Government have not been accepted by the Committee. (vide recommendations at Sl. Nos. 4 and 5)	2
	Percentage to Total	6.25%
V	Recommendations in respect of which final replies of Government are still awaited (vide recommendation at Sl. No. 14)	1
	Percentage of Total	3.12%