

**COMMITTEE ON PUBLIC  
UNDERTAKINGS  
(1975-76)**

**(FIFTH LOK SABHA)**

**SEVENTY-SEVENTH REPORT  
ON  
STEEL AUTHORITY OF INDIA LTD.  
(Ministry of Steel & Mines)  
(Department of Steel)**



**LOK SABHA SECRETARIAT  
NEW DELHI**

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SEVENTY SEVENTH REPORT OF THE COMMITTEE  
ON PUBLIC UNDERTAKINGS (1975-76) ON STEEL  
AUTHORITY OF INDIA LTD.

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**COMMITTEE ON PUBLIC UNDERTAKINGS  
(1975-76)**

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Officer.**

**Shri K. S. Bhalla—Senior Financial Committee Officer.**

## INTRODUCTION

I, the Chairman, Committee on Public Undertakings, having been authorised by the Committee to present the Report on their behalf, present this Report on the Steel Authority of India Ltd.

2. This Report is based on the examination of the working of the Steel Authority of India Ltd. and its subsidiaries upto the year ending 31st March, 1975.

3. The Committee took evidence of the representatives of Ministry of Steel and Mines (Department of Steel), Ministry of Energy (Departments of Power and Coal) and Ministry of Railways (Railway Board) and the Steel Authority of India Ltd. on 24th and 25th January, 1975 and again of Ministry of Steel and Mines (Department of Steel) and Steel Authority of India Ltd. on 7th February, 1975.

4. The Committee on Public Undertakings considered the Report on 28th and 29th November and 1st December, 1975 and adopted it at their sitting held on 1st December, 1975.

5. The Committee wish to express their thanks to the Ministry of Steel and Mines (Department of Steel), Ministry of Energy (Departments of Coal and Power) and the Ministry of Railways (Railway Board) and the Steel Authority of India Ltd. for placing before them the material and information they wanted in connection with the examination of working of the Steel Authority of India Ltd. The Committee wish to thank in particular the representatives of the Ministries and the undertaking who gave evidence and placed their considered views before the Committee.

NEW DELHI;

January 16, 1976.

Pausa 26, 1897 (Saka).

NAWAL KISHORE SHARMA,

Chairman,

Committee on Public Undertakings.



## INTRODUCTORY

### A. Historical Background

1.1. The appreciation of the role of steel as the basic industry prompted India's planners to lay emphasis on expanding the country's steel making capabilities. Under the Industrial Policy Resolution of 1956 all new units in Iron and Steel Industry were to be set up only by the State. This did not however preclude the expansion of the privately owned units or the possibility of the State securing the co-operation of private enterprise in the establishment of new units when the national interests so required. The Second Five Year Plan, therefore, envisaged the construction of three steel plants of 1 million tonne ingot capacity each in the public sector and further expansion of the TISCO, IISCO and the Mysore Iron and Steel Works.

1.2. In January, 1954, Hindustan Steel Ltd. was formed as a joint stock company under the Companies Act to construct and manage the first steel plant in public sector, viz., Rourkela Steel Plant. On 1st April, 1957, the other two public sector steel projects viz., Durgapur Steel Plant and Bhilai Steel Plant which were under the control of the then Ministry of Iron and Steel were also transferred to H.S.L. as Government considered that it would be advantageous if all the three projects were brought under a unified Company management.

1.3. Besides these three steel plants, Hindustan Steel Ltd. had set up the Alloy Steels Plant at Durgapur in December, 1968 which accounts for the bulk of the country's production of alloy and tools steel. It had developed a unit offering consultancy in engineering services—the Central Engineering and Design Bureau—which has since been formed into a separate company namely Metallurgical and Engineering Consultants (India) Ltd. H.S.L. also operated several coal washeries, iron ore mines and lime stone quarries.

1.4. On the 29th January, 1964 Bokaro Steel Plant was set up as an independent unit functioning directly under the Ministry of Steel and Mines.

1.5. The question of setting up a Holding Company for steel and associated input industries was first considered in the Department of Steel in 1971. It was felt that, in the interest of combining growth with social justice in the area outside agricultural and social services, the achievement of the following two objectives was important:—

- (a) Rapid growth of the industrial sector of the economy with the State as a leading agent of the growth process; and
- (b) Ability of Government to direct investment into areas which are strategic from the point of view of future development.

1.6. In this context, it was recognised that the public sector had to be made more efficient in order that it might contribute far more than it did to the total pool of investible surplus in the economy. Secondly, Government having become increasingly a substantial shareholder in large scale industrial concerns through investment of public funds by public financial institutions like the Unit Trust of India, Life Insurance Corporation, Industrial Finance Corporation, Industrial Development Bank of India, Nationalised Banks, Nationalised General Insurance Companies, it was essential that Government should devise a suitable mode of ensuring proper management of the concerns in which it owned majority/near majority shares in the larger socio-economic interest.

1.7. The organisation of a Holding Company for the steel and associated input industries sector, playing an important growth promoting role like that of Holding Companies in some other countries could, it was considered, achieve both these objectives. Further, such a Holding Company could perform a number of other important functions like coordination and control of the constituent units without being burdened with day-to-day administration and unit-wise production problems, chalking out long-term programmes of development for the enterprises coming within its jurisdiction, introduction of necessary technological changes and innovations in the industry, setting up an R&D Organisation and training of managerial personnel for the sector as a whole leading to a greater degree of professionalisation. The Holding Company could also develop specialised advisory services to be used in common by the operating companies in such areas as career deve-

lopment and succession planning, effective inventory control on a scientific and economic basis and investment analysis. This will also enable the Ministry to concentrate on issues of major policy and future expansion and development of the industry and enforcement of standards and objectives in performance.

1.8. Based on the above considerations, the proposal to set up a holding company for steel and associated input industries was approved by Government in January, 1972. It was also recognised that it would be desirable, before constituting the holding company, to make a study of the experience of similar holding companies in countries where such companies have been constituted and of similar organisations in other countries. Accordingly, a study team comprising the Chairman-designate, Secretary to the Prime Minister, Chairman, Hindustan Steel Limited, and Joint Secretary in the Department of Steel visited Italy, Sweden and France to study the organisation and working of some of the major holding companies in these countries. Some of the important points relevant to the formation of a Holding Company for the Steel Industry noted by the Team are:—

- (i) Holding Companies generally exercised entrepreneurial functions on behalf of the State and directed investments in areas considered strategic or important in the national interest.
- (ii) Operations and managements of Holding Companies and their subsidiaries are sought to be conducted on sound industrial and commercial principles by professional Managers and technocrats, one of the more important objectives being the generation of surpluses from such ventures, to be utilised for further growth and expansion. Government lays down broad policy objectives, as for example in Italy, the need to industrialise Southern Italy, considered to be a relatively backward area in that country, to provide greater employment opportunities and to enter into areas necessitating longer gestation periods and also into sectors of the economy where it is felt private capital will not venture with the speed and size of investments that national interests require.
- (iii) The performance of the Holding Companies and their subsidiaries is measured against financial and economic objectives/targets laid down by Government from time

to time working in close cooperation with the Holding Companies.

- (iv) Holding Companies and subsidiaries generally make proposals for investments which are commercially and industrially viable. If, however, Government feel that the location of industry, its size, investment and technology require some change in view of social and political considerations, the additional costs are sought to be separately estimated as 'social costs'. Such "social costs" are identified and made known to the Parliament, public and all concerned. These costs are fully taken into account when judging performance of the Companies.
- (v) Holding Companies and their wholly or majority owned subsidiaries are used as an important form of industrial organisation for preventing growth of monopolies and their control of key sectors of the economy.

1.9. In the light of the decision taken in January, 1972, and the report of the study team, the formation of Steel Authority of India Limited, the holding company for steel and associated input industries, was finally approved by Government in December, 1972. The Company was incorporated on 24th January, 1973, with an authorised capital of Rs. 2,000 crores.

1.10. In pursuance of Government decision, SAIL has acquired the shares held by the President of India in the Companies listed below and the Memorandum and Articles of Association of the following companies have been suitably amended:

- (1) Hindustan Steel Limited
- (2) Bokaro Steel Limited
- (3) Salem Steel Limited
- (4) Hindustan Steel Works Construction Limited
- (5) Bharat Coking Coal Limited
- (6) National Mineral Development Corporation Ltd.

1.11. Consequent to the transfer of shares, these companies have become wholly owned subsidiaries of SAIL.

The majority shares held by the President in Bolani Ores Limited, and Metal Scrap Trade Corporation have been acquired

by SAIL and their Memorandum and Articles of Association have also been amended. These companies are also now the subsidiaries of SAIL.

1.12. Similarly, the President's shares in Mysore Iron and Steel Limited, Manganese Ore (India) Limited and Indian Iron and Steel Company Limited have been transferred to SAIL.

1.13. In accordance with Government decision, Central Engineering and Design Bureau, a former wing of Hindustan Steel Limited has been converted into a separate company as a subsidiary of SAIL under the name "Metallurgical and Engineering Consultants (India) Ltd." (MECON).

1.14. To coordinate the export and import business, a separate Company, namely "SAIL International Ltd." has already been incorporated on June 10, 1974.

#### B. Aims, Objectives and Functions

1.15. The main objects of Steel Authority of India Ltd. are as follows:—

- (i) To plan, promote and organise an integrated and efficient development of the iron and steel associated input industries, such as iron ore, coking coal, manganese, limestone, refractories, etc., in accordance with national economic policy and objectives laid down by the Government from time to time;
- (ii) To co-ordinate the activities of its subsidiaries to determine their economic and financial objectives|targets and to review control, guide and direct their performance with a view to securing optimal utilisation of all resources placed at their disposal;
- (iii) To act as entrepreneur on behalf of the State, to identify new areas of economic investments and to undertake or help in the undertaking of such investments;
- (iv) To formulate and recommend to the Government, a national policy for the development of iron and steel and related input industries and to advise it on all policy and technical matters.

1.16. SAIL has been entrusted with the responsibility of ensuring coordinated development of the iron and steel industry covering both public sector and the joint sector. The several other industries supplying major inputs needed by the Steel industry, such as coking coal, iron and manganese ore etc. are also the concern of SAIL.

1.17. Details of the functions and powers of SAIL are stated to be as below:—

- (i) Take all possible steps to secure its objects mentioned above.
- (ii) Acquiring of Government shares by SAIL in the companies in public sector dealing with iron and steel and its associated inputs.
- (iii) Exercising of voting rights on behalf of the public financial institutions viz. LIC, UTI, IDBI, ICICI, IFC, nationalised banks, nationalised general insurance companies, etc. in respect of their holdings in all private sector companies in the field of iron, steel and associated input industries to ensure that their programmes and development are conducted in accordance with the policy of the Government.
- (iv) Dealing with Government by SAIL for the subsidiaries instead of the earlier practice of direct dealing with Government by the subsidiaries.
- (v) SAIL has been authorised to undertake promotion of wholly or partly owned companies from its own internal resources;
- (vi) SAIL has also been authorised to incur capital expenditure upto a limit of Rs. 10 crores and to delegate powers to its subsidiaries to sanction capital schemes upto Rs. 2 crores provided the funds can be found within the budget allocation.
- (vii) Appointment of Chairman/Directors and General Managers/Chief Executives of subsidiaries;
- (viii) Obtaining of Government approval for the subsidiaries on the matters listed below:

- (a) Approval of capital schemes costing over Rs. 10 crores each;
  - (b) Approval of annual capital budget estimates and revised estimates;
  - (c) Release of funds for capital and other expenditure;
  - (d) Over-draft facilities with Government Guarantee;
  - (e) All release of foreign exchange and issue of import licences; and
  - (f) Foreign collaborations, employment of foreign experts, vigilance cases that require orders of Government, etc.
- (ix) Matters relating to supply and movement of raw materials, finished products and all matters relating to transport for subsidiaries.
  - (x) Undertaking demand forecast studies, making proposals for additional steel capacity etc. and commissioning feasibility studies;
  - (xi) Supervision of implementation in subsidiaries of Government directives regarding employment of scheduled castes/scheduled tribes, ex-servicemen, disabled and otherwise, and dependents of those killed in action;
  - (xii) Matters relating to vigilance, security, civil, defence measures in subsidiaries;
  - (xiii) Matters relating to Task Force meetings for review of performance of the subsidiaries;
  - (xiv) Preparation of the annual Capital budget covering the budgets of its subsidiaries for inclusion in the demands for grants.
  - (xv) Obtaining of indigenous clearance from DGTD;
  - (xvi) Scrutiny of proposals for training abroad, deputation of Indian experts abroad and engagement of foreign specialists;
  - (xvii) Matters relating to Indian Standards on Iron and steel.

1.18. The Chairman of SAIL and Secretary, Department of Steel during evidence explaining how far SAIL has been able to achieve

the objectives expected to be performed by it as a holding company, stated that:

".....By and large, what we have done is absolutely correct both in terms of policy and in terms of practices. We can draw certain lessons from it and try to make changes which will help in strengthening the public sector so that the funds which were extracted from a relatively poor economy and ploughed into the public sector would yield adequate and larger returns. It was in this spirit that the Steel Authority of India came into being..... We have been able to take some practical steps in this particular direction.... Effective steps were taken to curb the misuse of steel which I shall illustrate very soon which have helped us in a big way to bring about a state of affairs wherein steel is relatively better available in the economy. Steps have also been taken with regard to distribution.... Hitherto, we had used the stockyards to push through them 20 per cent of steel produced. Now, we have suitably increased the quantum of supply through the stockyards and we have also created additional further base points so that the consumers can get steel from a large number of points, from where the steel will get further re-distributed into the hinterland. These base points are located at places where there is a large consumption of steel. We have also made changes in very close cooperation with the Railways in the outward movement of steel..... The other side of the coin of consumer contract has also been the initiation of market studies. A number of steps have been taken in this direction to establish the demand for various categories and also to have a better idea about the end use of steel. I think that this consumer contract, in relation to the small scale, large scale and public sector industries, has been of great benefit to us in understanding the product-mix and activising the inventories. We have abolished the practice of taking earnest money deposits, because it not only entailed the piling up of money for years but it had a system under which money also got locked up. At the same time we still had the problems. No body could indent for large quantities which had no relation to the ability for offtake or to consume..... We have also concentrated in the area of operational efficiency in the plants.



As a result, three practical results have come about. Firstly, the consumption of coke especially in Bhilai and Rourkela has been brought down this year; and to that extent it has reflected both in terms of monetary value and in the coke being a scarce commodity. In future, we should be able to improve upon this, once we make a regular supply. It has often been mentioned that the plant has large defectives. The production of defectives in the plant, which is under 4 per cent, has in the last two years been brought down progressively..... The next thing which we did was, not to look at all the problems, but to try to identify the priority problems. The priority problem for increasing the production immediately, was the need to pay special attention to inputs, particularly coal, power and transport. Here, practically an almost day-to-day and week-to-week coordination, both centrally from the Steel Authority through its liaison set up and in Delhi with other Ministries, has been achieved, and thanks to the cooperation from the agencies in these areas some improvement has been achieved. Knowing that there was scarcity of energy from the plants and of coke oven gas and of electric power last year, we paid special attention this year to see that this energy is put to proper use. We had decided that the performance of the plant would be measured, not by ingot steel—they are of little value—which we had accumulated quite a bit. Ingots were really taking up valuable scarce commodities but the society could not consume ingots as such. Greater emphasis was on saleable goods. A fair portion of the old ingot stocks could be converted into saleable steel. I am glad that according to the financial results of last year, we have got a small surplus of about Rs. 4 crores. The performance this year is expected to be better, but it is too early to predict..... The authorities in the plant pay particularly special attention to industrial relations. Although industrial relations poses a serious problem at Durgapur, it is wrong to say that it acts as an impediment to production. We take pride in the fact that last year especially, when there was a very large increase in the cost of living and when there was crisis in regard to power and coal, even though the production in the plants had gone down...and consequently the incentive for the workers...we had no widespread industrial unrest in the plants. It is a sign of the maturity of workers, trade

unions and certainly of the management. There was an intermittent trouble in Rourkela; and there have been difficulties in Durgapur, but by and large, industrial relations have been good and sound."

In a small way, we have been able to activate a fairly large amount of inventories as far as steel is concerned. Six lakh tonnes of steel were pumped into the economy. The open black-market in steel is, therefore, reduced and almost eliminated and, because of the severe steps taken to curb it, the misuse of steel has disappeared. We have been able to divert the surplus for export purposes; and this has certainly led to greater confidence.... When the Steel Authority was formed, we were very clear in our mind—and we have tried to adhere to that—that the Steel Authority cannot be and should not be a day-to-day operating company, it cannot and should not try to run the plants or the operations on a day-to-day basis, and that, as a consequence of that, the staff of the Steel Authority's Central Office must also remain thin....and therefore, the total staff here has been kept a little about 200, and the majority of the staff, 95 to 97 per cent, has been drawn from the steel industry and the steel plants, and some, of course, from some of the Government Departments. In order to ensure more effective working and delegation, we have come to the conclusion that our major steel plants which are, by national and even international standards, large enough in financial outlay in the production value that they generate and in the total financial implications which follow from these investment, to be constituted into separate independent companies.... It will be essentially to see that larger steel production taken place, that certain strategic alloys are produced, it may also relate to the location of the plants from a strategic angle, taking into account both defence and the social and economic priorities and compulsions in this country.... We are now examining the manufacture even of strategic material, in which investment may not be large, like ferro-alloys in Orissa."

1.19. To a question as to by what time the objective of SAIL to formulate and recommended to Government a national policy for the

development of Steel would be fulfilled, the Chairman, SAIL, and Secretary, Department of Steel stated that—

“The objective of a national policy has got to be to attain self-sufficiency in the strategic and important materials... We have done very recently, in close co-operation with the Planning Commission, studies both in terms of demand and in terms of the production that will be generated during the next five years and, as the demand projection goes today, it appears that in about two years time, we will be fairly self-sufficient in steel. In fact, we are throwing up in this study adequate surpluses for export, but that does not mean that we will not import any steel. Practically every country imports some steel, while exporting it. So, we visualise that within two years—and even by the beginning of this year we will be exporting—there will be a larger tonnage of export compared to the tonnage imported.”

1.20. To an enquiry as to why there is delay in implementing the reorganisation of HSL, leading to each Steel Plant being constituted as a separate company, the Chairman, SAIL and Secretary, Department of Steel replied that:—

“When we formed SAIL, at that time we clearly visualised that the Hindustan Steel would be re-organised...we feel the need to form the plants into separate company,— I do submit that there has been some delay. I think, the decision in the SAIL has been taken and this we are now carrying out and I hope it will be implemented early.”

1.21. The Committee enquired whether there were any occasions when SAIL had to exercise its voting rights in respect of holdings of the Public Financial institutions in private sector companies in the field of iron and steel and how it was ensured that the exercising of these voting rights contributed to conduct of the operations, programmes and development of the private sector companies in accordance with the policy of the Government. In a written reply it was stated that such voting rights were exercised in the Annual General Meeting of TISCO for 1973-74 held on 20th August, 1974 and in the Annual General Meeting for 1973-74 of IISCO held on 27th September, 1974. It was also added that all decisions were in conformity with Government policies towards the development of iron

and steel industry. Some of the important policies of Government in this sphere include the following:—

- (i) Optimisation of steel production;
- (ii) fixing up of targets of production;
- (iii) distribution of steel in accordance with national priorities;
- (iv) use of the difference between the retention price and sale price towards the development and modernisation of steel industry;
- (v) improvement of industrial relations; and
- (vi) pricing of steel taking into account all relevant national economic considerations.

1.22. In regard to laying down the general financial, economic and social objectives as recommended by the Committee on Public Undertakings, the representatives of the Ministry of steel stated during evidence that—

“The question of laying down the general financial economic and social objectives of a public enterprise was entrusted to the Government, to the Bureau of Public Enterprise. The Bureau of Public Enterprise in turn requested the Committee of Secretaries to go into this question to lay down the micro-objectives of the public sector as a whole and then in consultation with the various undertakings laid down guidelines on the basis of which the micro-objectives of each undertaking can be formulated. This is also brought to the notice of this Committee. This Committee in fact expressed its disappointment that in spite of having made definite recommendation, the government have not taken final action in this matter. As far as the general objectives to the individual public sector undertakings are concerned, they are waiting for the Bureau of Public Enterprise to lay down the micro-objectives on the lines indicated by this Committee and other Committee of Parliament. This is the position.”

\* \* \* \*

“I hope they will be able to complete this work early. Now, coming back to the substance of the question, namely whether we are clearly formulating economic and financial objectives, I would like to submit that that is being done

and that in the reports to Parliament we do mention about the production targets, what is performance etc. But in regard to the manner in which this has been worked out, I would submit that this will be done shortly as soon as the Bureau has worked this out."

1.23. The Committee note that the SAIL has been set up as a holding company with a view to planning, promoting and organising an integrated and efficient development of the iron and steel and associated input industries in accordance with national economic policy and objectives laid down by the Government from time to time and to coordinate the activities of its subsidiaries, besides formulating and recommending to the Government a national policy for the development of iron and steel and related input industries. The Committee note that the SAIL is engaged in achieving these objectives. Detailed recommendations in regard to each one of the objectives are dealt with in the subsequent Chapter of this Report.

1.24. The Committee regret to note that though in their 40th Report (1973-74) on 'Role and Achievement of Public Undertakings' they had recommended that the micro-objectives both financial and economic for each public undertaking should be laid down and placed before the Parliament, so far no action has been taken to lay down these objectives and bring it to the notice of Parliament. The Committee were informed during evidence that public undertakings were waiting for the Bureau of Public Enterprises to lay down the micro objectives of the public sector as a whole on the lines indicated by the Committee on Public Undertakings. The Chairman, SAIL and Secretary, Department of Steel has stated during evidence that "I would submit this work will be done shortly as soon as the Bureau worked this out." The Committee regret to observe that the Bureau of Public Enterprises have taken an unduly long time in finalising the micro-objectives of public undertakings and desire that the Bureau should finalise these objectives expeditiously. The Committee would like Government to finalise their guidelines in this regard and lay down general financial, economic and social objectives of the holding company as well as the subsidiaries and bring this to the notice of Parliament without further delay.

1.25. The Committee also recommend that Government/SAIL should take immediate action to formulate the national policy for the development of steel with all supporting data and in the light of experience in the country and the knowledge of innovations and

experience abroad for the consideration of Government and bring it to the notice of Parliament at an early date.

1.26. The Committee also note that even after the formation of SAIL, Hindustan Steel Ltd. which was coordinating organisation for Bhilai, Rourkela and Durgapur Steel Plants, continues to function under the SAIL. The Committee feel that the continued existence of HSL within the Steel Authority of India, a holding company, seems to be incongruous. The Chairman, SAIL and Secretary, Department of Steel has admitted during evidence that "when we formed SAIL at that time we clearly visualised that the Hindustan Steel would be re-organised. I do submit that there has been some delay. I think decision in the SAIL has been taken and this we are now carrying and I hope it will be implemented early." The Committee feel that a decision in this regard has already been over-delayed and recommend that Government should finalise their decision most expeditiously. The Committee have given their further recommendations in this regard in "Organisation" chapter of this report.

1.27. In Paragraph 3.15 of their 40th Report (1973-74) on "Role & Achievements of Public Undertakings" the Committee had observed that "the point whether the holding company (SAIL) should have been established under an Act of Parliament as is done in some other countries, can be decided only after some experience with the present set up."

1.28. The Committee, therefore, recommend that the experience of the Role and achievement of SAIL should be most carefully evaluated and Parliament should be kept informed of the results of evaluation.

## II

### PRODUCTION DEMAND PROJECTION

2.1. In a note, the Steel Authority of India informed the Committee that a comprehensive policy for the development of steel industry covering both short and long term requirements had been evolved. The Steel Authority formulated views and collected essential data for determining the policy to be adopted for the expansion of iron and steel industry during the Fifth Plan and also projections into the Sixth Plan. After discussions these had been incorporated in the draft proposals for the Fifth Plan and projections worked out for the Sixth Plan. A statement indicating domestic demands for the Fifth and Sixth Plans is appended. (*Vide Appendix I*).

2.2. It is observed from the statement that though the gap at the end of the Fifth Plan is only 0.8 million tonnes, the gap at the end of the Sixth Plan will be of the order of 1.5 million tonnes.

2.3. According to the draft Fifth Five Year Plan (1974—79), the domestic demand for finished mild (saleable) steel has been estimated at about 10 million tonnes by 1978-79. The existing integrated steel plants have a total capacity of 8.9 million ingot tonnes of ingot steel equivalent to 6.73 million tonnes of Saleable steel per annum. The increased demand for steel by 1978-79 is proposed to be met through the expansion of Bhilai Steel Plant from its present capacity of 2.5 million ingot tonnes to about 4.0 million ingot tonnes and by the expansion of Bokaro on a continuing basis to a capacity of 4.75 million ingot tonnes. Taking into account the production build up at Bhilai and Bokaro after the commissioning of the expansion schemes and capacity utilization possible in the other integrated plants, it is estimated that finished steel available from integrated steel plants would be about 8.8 million tonnes. The year-wise break-up of production as estimated and agreed to with the Planning Commission, is as under:—

#### *Saleable Steel Production*

(Million Tonnes)

| Plant        | Rated Capacity | 1974-75     | 1975-76     | 1976-77     | 1977-78     | 1978-79     | Total        |
|--------------|----------------|-------------|-------------|-------------|-------------|-------------|--------------|
| BSP          | 1.965          | 1.77        | 1.77        | 1.77        | 1.83*       | 2.12*       | 9.26         |
| DSP          | 1.239          | 0.60        | 0.70        | 0.75        | 0.80        | 0.90        | 3.75         |
| RSP          | 1.225          | 0.91        | 1.07        | 1.09        | 1.15        | 1.15        | 5.37         |
| TISCO        | 1.500          | 1.40        | 1.50        | 1.55        | 1.55        | 1.55        | 7.55         |
| IISCO        | 0.80           | 0.51        | 0.63        | 0.70        | 0.72        | 0.72        | 3.28         |
| BSL          | *              | Nil         | 0.80        | 1.40        | 1.80        | 2.40        | 6.40         |
| <b>TOTAL</b> | <b>6.729</b>   | <b>5.19</b> | <b>6.47</b> | <b>7.26</b> | <b>7.85</b> | <b>8.84</b> | <b>35.61</b> |

\*Depends on the commissioning schedules of the various facilities being installed.

2.4. The electric arc furnace units are expected to contribute to the availability of at least a million tonnes of bars and rods by the end of Fifth Plan period. Thus the total over-all indigenous availability of mild steel by 1978-79 would be about 9.8 million tonnes. It would more or less meet the estimated domestic demand.

2.5. In regard to tool, alloy and special steels, it was stated that the production in 1973-74, was 3.39 lakh tonnes. The import of tool, alloy and special steels in 1973-74 was about 80,000 tonnes. Since the import policy ensured the import of alloy and special steels (to the extent not indigenously available) for all priority requirements, subject to the availability of foreign exchange, the total production and imports might be taken to represent the domestic demand and on this basis, the total demand in 1973-74 was about 4 lakh tonnes. No precise estimate of demand for the future had been made. It was likely that the demand for these kinds of steel might go up by 5 to 10 per cent per annum. However, there was need to study the demand trends in future on a continuous basis for taking investment decisions both in the public and private sectors.

2.6. Tentative demand projections for the Fifth Plan and the availability of alloy and special steels for the Fifth Plan are shown in the following table:—

Estimate of demand and availability of Alloy and Special Steels for the 5th Plan  
(1000 tonnes)

|                             | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 |
|-----------------------------|---------|---------|---------|---------|---------|
| Demand . . . . .            | 363     | 398     | 496     | 478     | 534     |
| Availability                |         |         |         |         |         |
| (i) Mini Steel Plants       | 140     | 240     | 290     | 310     | 340     |
| (ii) Alloy Steel Plants .   | 240     | 260     | 270     | 280     | 290     |
| (iii) Main Plants . . . . . | 30      | 30      | 20      | 10      | ..      |
| Total . . . . .             | 410     | 530     | 580     | 600     | 630     |
| Surplus . . . . .           | 47      | 132     | 144     | 122     | 106     |

2.7. To an enquiry of the Committee as to what machinery and procedure were adopted for conducting Demand Survey from



time to time by Public and Private Sectors the Steel Authority of India, in a written reply stated that—

“Demand Surveys are conducted directly by the organisation which is interested in the Survey or through competent and experienced consultants. Some of the important consultancy organisations in Delhi are:—

- (1) Industrial Development Services
- (2) Manavasi Consultants.
- (3) Atkins-Das Private Limited.
- (4) National Council of Applied Economic Research.

The techniques of forecasting are many, but the choice of one suitable to the products in question comes only with experience. To a large extent, it also depends on the nature of the data available for the purpose. In all economic surveys, historical data are used to make future projections. In certain methods judgement plays a great part in picking, choosing and interpreting the available data. There are several methods of forecasting demand and briefly they all fall under one or the other of the following:—

- (a) Trend Method
- (b) Regression Technique
- (c) Historical and Geographical analogies
- (d) End-use Method
- (e) Questionnaire Method
- (f) Input Output.

2.8. To a further enquiry of the Committee as to what steps have been taken by SAIL for assessment of demand, the Steel Authority of India stated that, by its very nature, it was not possible to assess the demand accurately. Apart from making its own assessment SAIL had also employed certain competent consultants to make estimates of demand. The Industrial Development Services had done two studies—one on Demand Estimates of Finished Steel during October 1973 to September 1974 and the other on the Demand for Forging Quality Steel. The demand for wires was done through another consultant, namely, Atkins-Das Private Ltd. It was further stated that some of the main demand estimates made by SAIL

themselves include the demand for Tubes at the end of the Fifth Plan and demand for Hot Rolled Strips.

2.9. Asked about the projection of steel demand as worked out by the different agencies, SAIL stated, in a written reply, as follows:—

- (a) Industrial Development Services had estimated the demand for finished steel during October 1973—September 1974 only. It was placed at 6.15 million tonnes of finished steel.
- (b) M/s. Atkins-Das were engaged by SAIL only for assessing the demand projections for wire rods and wires. They have estimated only the demand for wire rods and wires by 1978-79 as under:—

|                                     | Demand in ('000 tonnes) |           |
|-------------------------------------|-------------------------|-----------|
|                                     | Wires                   | Wire Rods |
| Low Carbon and mild steel . . . . . | 330                     | 371       |
| Medium and high carbon . . . . .    | 315.7                   | 334       |
| Others including alloy . . . . .    | 35.3                    | 37        |
| TOTAL : . . . . .                   | 681.0                   | 742       |

Demand projections have to be made on a continuing basis. The estimates are reviewed periodically taking into account the various changes taking place in all the industrial sectors, constraints on availability of raw material inputs, finances etc. SAIL are undertaking such reviews periodically.

- (c) The National Council of Applied Economic Research conducted demand projections for finished steel and its reports were brought out in November 1968 and December 1971. The estimated demands were as under:—

|                   | Demand for finished mild steel |             |
|-------------------|--------------------------------|-------------|
|                   | ('000 tonnes)                  |             |
|                   | 1968 Report                    | 1971 Report |
| 1975-76 . . . . . | 10,512                         | 7,612       |
| 1980 . . . . .    | 15,375                         | 12,859      |

- (d) The Steering Group on Metallurgical Industries (Fifth Plan) had constituted a Task Force on Iron and Steel and its report was submitted in May, 1973. The estimated demand for finished mild steel according to them was as under:—

| Year    | Demand in ('000 tonnes) |
|---------|-------------------------|
| 1975-76 | 7,973                   |
| 1976-77 | 8,882                   |
| 1977-78 | 9,707                   |
| 1978-79 | 10,723                  |

- (e) Steel Authority of India Ltd. (SAIL) had conducted demand and availability projections and according to their assessment in January 1975, the demand for finished mild steel was as under:—

| Year    | Estimated Demand ('000 tonnes) |
|---------|--------------------------------|
| 1975-76 | 6,168                          |
| 1976-77 | 6,558                          |
| 1977-78 | 7,688                          |
| 1978-79 | 7,658                          |

2.10. In this connection the representative of SAIL added:—

“Immediately after the SAIL was formed, we had participated in the formulation of the 5th Plan, the basis of which was the demand during the 5 years. We had as the basis, in arriving at the demand, the data which was already available with us; and did some studies as well in relation to the kind of demand which each of the industries should project over a period of time. The demand for steel is very closely linked up with the total plan investment and also the way in which the plan investment is distributed among the various sectors of the economy. In consultation with the Perspective Planning Division of the Planning Commission and with our major customers and the producers, we had evolved a demand for steel for the 5th Plan and subsequent periods and got an agreement from the Planning Commission that the assessments were reasonable and that our methods were correct. In order to enable us to be a little surer of our projections, we have done a number of surveys to establish the basic demand

for various categories and various industries. We did an analysis of industries like Tube, wire-drawing and forging, so that adequate components of the demands could be agreed to; and the basic economics of the industries established. In addition, we have evolved, with the help of our colleagues in the research groups of our Directorate, the techniques of costing, which would be very useful for arriving at the correct kind of demand. The figures for the rest of the 5th Plan are being finalized and they would depend upon the kind of actual Plan-provisions for the 5th Plan. During 1974-75, we have been able to put into the economy, considerable amounts of steel bars. We realize that the steel so pumped in, will be consumed a little later, and not immediately. This factor has been taken into account in arriving at the demand for the next year and the growth needs thereafter. This is a continuing activity which had to be up-dated and clarified and better methods evolved, so that we know with greater certainty, the kind of demand which we will have from time to time."

2.11. Asked about the techniques of costing have been used for assessment of demand it has been stated in a written reply that costing has a special role to play in deciding upon the development and expansion of the steel base of the country with a view to meeting the future demand of steel. Before taking up expansion programmes of the existing projects or putting up new plants, the economics and cost benefit analysis of the schemes are determined based on cost projections. Several demand/production patterns under these programmes are projected and economics assessed with a view to arrive at an optimum size of the product, product line and product-mix.

2.12. In regard to a specific question as to how far the information available was utilised for working the demand projections it was stated that the steel controller published a quarterly bulletin containing statistical data regarding production, imports, exports, etc. of steel. The data contained in this bulletin were found to be useful in the determination of figures relating to past consumption, past imports, past exports and thus found useful for estimating the steel demand. The Joint Plant Committee, producers, the Steel Ministry, SAIL were also consulted before finalising the steel demand. The likely demands of the various Government Departments like Works & Housing, Irrigation and Power, Railways are also taken into account. Discussions are also held with all the

principal Government consumers before the steel demand is estimated. The demands are also discussed with various public undertakings like State Electricity Boards and Power Projects, etc.

2.13. In respect of potentialities for export, the demand was previously assessed by the Hindustan Steel Ltd. But now after the SAIL International Limited was incorporated in June, 1974, this estimation of the demand will be done through them.

2.14. To a question as to what machinery was utilised by SAIL to carry out a detailed demand survey for the various kinds of steel for the next 5—10 years, the representatives of SAIL during evidence stated that:—

“We have done it in two ways. One is to use our own staff to meet the customers, sit with them, work out the economics and prepare a report. The other is that we have selected competent consultants who have produced reports. One is Industrial Development Services which does a lot of work for the Planning Commission, Commerce Ministry and for us. The other was Das Atkins. They are also metallurgical consultants who have done a lot of work in the steel industry. Both are Indian. We do not have permanent consultants. A specific job of demand survey was given to them and they submitted reports. Then we have people to do the survey where we ask them to project the demand for a long period of time. They have made assumptions which way the market will grow by the end of the Fifth Plan and given us reports. Very much would depend on the assumptions made and the kind of things which will happen in the economy during the next three or four years. As far as these reports are concerned only the future will show whether the demand of estimates is accurate or not because when something is projected for 1978-79, it will be difficult to say now whether it will be realised or the estimate is fairly accurate.”

2.15. The Chairman of SAIL added:—

“We came to the conclusion about a year or a year and a half ago when we were looking at the product mix requirements into the next 5 years and more so, after we had carried out this physical check to activise inventories. We found different categories which may be lying idle

in some cases due to want of matching items or otherwise due to excessive holdings. Then also, when the question of certain categories of imports was there, we generally relied only on what the people ask and we found that in some cases their demand was higher, in some others they asked at a later stage and we were not able to meet it. There was an imperative need to build up an organisation which would help us make proper demand surveys for various categories of steel. In the past some studies were done which were reasonably accurate, but in an industry like steel where so much money is invested, it is essential that in 6 or 7 directions, which are fairly well defined studies have to be conducted. The question was whether we should entirely do it on our own or we should engage some agencies for that or whether it should be a mixture of the two. We thought in the initial period, we can give it to some agencies which have the competence and experience in this effort, we would be at a loss to know what really is the demand. This is a very important aspect of the management of the steel industry, namely, proper end use and also studies to indicate the demands which may go up or recede in the different categories."

2.16. To an enquiry as to what prevented SAIL from relying entirely upon their own staff, the Chairman, SAIL and Secretary, Department of Steel stated that:—

"For that, we should recruit a large number. Once you recruit them, you find it difficult to get rid of them and we will create a permanent overhead. It also requires training of people. There is a certain methodology to be followed. There is a certain competence in this field which exists in the country and we thought we could make use of them. . . . The question is, can we do all of it ourselves or a part of it should be done by outside agencies or the whole of it should be done by outside agencies. Until very recently we did not have within the steel industry fairly elaborate market studies. We have just begun to do it. One way is to say that we shall create an organisation and build it up with experience. It is not merely hiring out some people, but certain methodology and experience goes into it. We shall do this and at the same time also

use some talent in this field which is available elsewhere in the country. That is our approach. Progressively we shall strengthen the in-house arrangement more and more. We have hardly begun this 1½ years ago. The idea is to progressively build up our own organisation which has the capacity for such market studies."

2.17. The Committee note that the domestic demand for saleable mild steel has been estimated at about 10 million tonnes by 1978-79, the last year of Fifth Plan. Against this, the production expected from the integrated steel plants is placed at 8.8 million tonnes. The electric arc furnace units are expected to contribute a million tonnes of bars and rods. The indigenous availability of mild steel by 1978-79 would thus be 9.8 million tonnes. It has been stated that this would more or less meet the estimated domestic demand. The Committee, however, find that the demand for steel at the end of 6th Plan would be of the order of 17 million tonnes and at the end of the 6th Plan, there will be a gap of 1.5 million tonnes. The Committee were informed that the demand for 5th Plan was assessed on the basis of the data already available and also on some studies made in relation to the kind of demand which each of the industries would project over a period of time and taking into account the consumption in the Fourth Plan and growth needs thereafter. Though this method has, it is stated, been accepted by the Planning Commission, the SAIL is of the opinion that this is a continuing activity and has to be updated and clarified so that the nature of the demand can be known with greater degree of certainty. The Committee agree with SAIL that the assessment of the demand of the various kinds of steel is a continuing activity and requires to be updated with reference to demand of end-users. The Committee desire that the SAIL should keep the demands for mild steel under constant review and adjust its production and expansion programmes to meet the likely demand for the various types of mild steel.

2.18. The Committee note that the total demand in 1973-74 of tool, alloy and special steels was 4 lakh tonnes. The Committee also note that in respect of alloy and special steels, no precise estimates for demand for future has been made and the demand is generally expected to go up by 5 to 10 per cent per annum. If the SAIL recognises, as it says, it does, the need to study the demand trends in future on a continuous basis for taking investment decisions both in private and public sectors, the Committee cannot appreciate why

no concrete action has been taken so far to make an estimate of the demand for tool, alloy and special steels for the future. They would like the SAIL lose no more time to initiate action in this direction so that their investment and production programmes can be suitably tailored to match the production to the demand.

2.19. The Committee note that demand surveys have been conducted from time to time through consultancy organisations like Industrial Development Services, Atkins Das Private Ltd., National Council of Applied Economic Research and several methods are used for forecasting the demand.

2.20. The Committee find that Government/SAIL have also got the following reliable sources of information for working out the demand projections of the various types of steel:—

- (1) Steel Controller/Steel Distribution Authority;
- (2) SAIL International through which steel is imported;
- (3) Demand of Government Departments, particularly, Defence, Railways, Works & Housing, Irrigation and Power etc.
- (4) Demand of Public Sector Undertakings (Centre and States).

2.21. They further note that there are wide variations in the demand forecasts made by the various organisations in regard to the finished mild steel. According to an estimate made in 1968 by the National Council of Applied Economic Research, the demand projection for finished steel in 1980 was estimated to be of the order of over 15 million tonnes. According to another demand projection made in 1971 by the same organisation, the demand for finished steel in 1980 had been put down at nearly 13 million tonnes. According to the report (May, 1973) submitted by the Task Force on Iron and Steel constituted by the Steering Group on Metallurgical Industries (Fifth Plan) the estimated demand for finished mild steel at the end of 1978-79 would be of the order of a little less than 11 million tonnes. As against these projections the SAIL which also conducted a demand survey in January, 1975, estimated the demand to be of the order of nearly 7.6 million tonnes at the end of 1978-79. This underlines the need for critical review of the various demand projections. The Committee like SAIL to go into this matter carefully and thoroughly with a view to arriving at reliable demand projections and making realistic assessment of the demands of various types of steel as accurately as possible so



that it may be in a position to take appropriate investment decisions on the Expansion of existing steel plants and the setting up of new plants and also take effective steps in the rational utilisation of the existing capacities of the various steel plants. The Committee are informed that as the work of demand survey requires a certain methodology, competence and experience which exist in the country, SAIL has decided to make use of private consultants available in the country in the initial stages for this purpose. While on the one hand SAIL considers that there is an imperative need to build up and progressively strengthen its own organisation for making proper demand surveys for various categories of steel, on the other hand, it also feels that for doing this work without the assistance of outside agencies, it would have to recruit a large number of persons and once they are recruited, it will be difficult to dispense with them and they would become an avoidable overhead.

2.22. The Committee are of the opinion that there have been wide variations in the projections of demand for various categories of steel as have been worked out by the different authorities and therefore it may not be safe to rely on such data. The Committee need hardly stress that in view of the huge investment required for steel production, it is very essential that the demand survey should be realistic. The Committee are, however, not inclined to share the view that it is not possible to conduct the demand surveys without the assistance of the outside agencies, as in their opinion the demand projections of such agencies have proved to be wrong. They would, therefore, like SAIL/Government to constitute their own machinery and settle its methodology for working out demand projections for the various categories of steel on a realistic basis at an early date and review it from time to time to make sure that it is adequate to serve the underlying objective. The Committee recommend that in constituting such a machinery, care should be taken to ensure that the overheads are kept to the minimum.

### III

## PRODUCTION—STEEL PRODUCTION

### A. White Paper on Production

3.1. The Estimates Committee have in their 78th Report (1974-75) on the Ministry of Steel & Mines on planning, development, production and distribution of iron and steel observed as follows:

“The Committee are constrained to observe that although in Paragraph 2.61 of their original Report, they had desired Government to bring out a comprehensive White Paper on the state of production in each of the steel plants and the measures taken or proposed to be taken to improve their performance and the Government, in October, 1972, had promised to place the White Paper on the Table of the House, “as soon as possible”, the White Paper is yet to be prepared by Government.

The Committee attach the greatest importance to the implementation of the recommendation accepted by Government. It is unfortunate that even after accepting this recommendation, action to implement it has been inordinately delayed. The Committee note that it is proposed to up-date the data to be included in the White Paper in which the Government would project its views regarding the change in the management of the steel industry. The Committee urge that energetic steps should be taken to complete the White Paper and lay it on the Table of the House as early as possible, at any rate, before the end of the current year.”

3.2. The Committee reiterate the recommendations of the Estimates Committee in paragraphs 2.117 and 2.118 of the Seventy-Eighth Report (1974-75) and urge that the white paper on the state of production in the steel plants may be completed and laid on the Table of the House at an early date.

## B. Steel Production

3.3 The Table below indicates the production of Ingot Steel, Saleable Steel and pig 'iron' during the last three years in the various steel plants and in main private sector steel producing units.

('000 tonnes)

| Name of Steel Plants | Rated capacity | 1972-73 |        | 1973-74 |        | 1974-75 |        | 10                                  | 11                            | 12                            | 13                            | 14                            |        |
|----------------------|----------------|---------|--------|---------|--------|---------|--------|-------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------|
|                      |                | Target  | Actual | Target  | Actual | Target  | Actual |                                     |                               |                               |                               |                               | Target |
|                      |                |         |        |         |        |         |        | % age in relation to rated capacity | % age in relation to capacity | % age in relation to capacity | % age in relation to capacity | % age in relation to capacity |        |
| I                    | 2              | 3       | 4      | 5       | 6      | 7       | 8      | 9                                   | 10                            | 11                            | 12                            | 13                            | 14     |
| <i>Ingot Steel</i>   |                |         |        |         |        |         |        |                                     |                               |                               |                               |                               |        |
| Bhilai               | 2500           | 2250    | 2108   | 84%     | 94%    | 2250    | 1894   | 76%                                 | 84%                           | 2070                          | 2001                          | 80%                           | 97%    |
| Durgapur             | 1600           | 1000    | 723    | 45%     | 72%    | 1000    | 776    | 48%                                 | 78%                           | 915                           | 819                           | 51%                           | 90%    |
| Rourkela             | 1800           | 1250    | 1177   | 65%     | 94%    | 1300    | 1081   | 60%                                 | 83%                           | 1165                          | 1066                          | 59%                           | 92%    |
| Bokaro               | 1700           | -       | -      | -       | -      | 32      | 18     | -                                   | -                             | 120                           | 124                           | -                             | -      |
| Sub Total            | 7600           | -       | 4008   | -       | -      | 4582    | 3769   | -                                   | -                             | 4270                          | 4010                          | -                             | -      |
| TISCO                | 2000           | 1900    | 1690   | -       | -      | 1930    | 1514   | -                                   | -                             | 1760                          | 1722                          | -                             | -      |
| IISCO                | 1000           | 800     | 431    | -       | -      | 648     | 439    | -                                   | -                             | 545                           | 532                           | -                             | -      |
| TOTAL                | 10,600         | 7200    | 6129   | -       | -      | 7160    | 5722   | -                                   | -                             | 6575                          | 6264                          | -                             | -      |

|                         | 1 | 2    | 3    | 4    | 5      | 6      | 7      | 8      | 9       | 101   | 11   | 12   | 13  | 14   |
|-------------------------|---|------|------|------|--------|--------|--------|--------|---------|-------|------|------|-----|------|
| ASP                     | . | 100  | —    | 61   | 82     | 55     | 55%    | 67%    | 82.00   | 78.36 |      |      |     |      |
| MISL                    | . | 182  | —    | —    | 156.05 | 165.05 | 141.58 |        |         |       |      |      |     |      |
| <b>SALEABLE STEEL</b>   |   |      |      |      |        |        |        |        |         |       |      |      |     |      |
| Bhilai                  | . | 1965 | 1790 | 1746 | 90%    | 97%    | 1790   | 1682   | 86%     | 94%   | 1655 | 1693 | 86% | 102% |
| Durgapur                | . | 1239 | 729  | 477  | 38%    | 65%    | 773    | 377    | 30%     | 49%   | 672  | 520  | 42% | 82%  |
| Rourkela                | . | 1225 | 899  | 765  | 62%    | 86%    | 875    | 736    | 60%     | 84%   | 835  | 812  | 66% | 97%  |
| (HSL)                   |   |      |      |      |        |        |        |        |         |       |      |      |     |      |
| Sub-Total               | . | 4429 | 3408 | 2988 | 67%    | 88%    | 3436   | 2795   | 63%     | 81%   | 3162 | 3025 | 68% | 97%  |
| TISCO                   | . | 1500 | 1425 | 1458 | 97%    | 102%   | 1500   | 1200   | 80%     | 80%   | 1400 | 1461 |     |      |
| IISRO                   | . | 800  | 640  | 347  | 43%    | 54%    | 503    | 358    | 45%     | 71%   | 482  | 414  |     |      |
| -----                   |   |      |      |      |        |        |        |        |         |       |      |      |     |      |
| TOTAL                   |   | 6729 | 5473 | 4793 | 71%    | 88%    | 5441   | 4353   | 65%     | 80%   | 5044 | 4900 |     |      |
| ASP                     | . | 60   | —    | 32   | —      | —      | 46     | 35     | 45.48   | 36.68 |      |      |     |      |
| MISL                    | . | —    | —    | —    | —      | —      | —      | 110.67 | [116.20 | 95.63 |      |      |     |      |
| <b>PIGIRON FOR SALE</b> |   |      |      |      |        |        |        |        |         |       |      |      |     |      |
| Bhilai                  | . | 905  | —    | 550  | —      | —      | 600    | 506    | 56%     | 84%   | 600  | 535  | 59% | 89%  |
| Durgapur                | . | 300  | —    | 279  | —      | —      | 280    | 99     | 33%     | 36%   | 280  | 127  | 42% | 45%  |

|                    |      |      |      |      |      |                |
|--------------------|------|------|------|------|------|----------------|
| Rourkela . . . . . | 70   | 90   | 46   | 101  | —    | 94%            |
| Bokaro . . . . .   | 308  | 880  | 664  | 749  | 603  | 87%            |
| Total              | 1207 | 1850 | 1315 | 1736 | 1366 | 81%            |
| TISCO . . . . .    | 2    | —    | 3    | —    | 1    | (upto Dec.'74) |
| IISCO . . . . .    | 72   | —    | 141  | —    | 105  | -do-           |

3.4. In regards to the sudden fall in the production of steel during 1973-74, SAIL has given the following reasons:—

- (i) Severe power cuts and power interruptions, especially in the period, April to mid—November, 1973, directly affecting production in all the steel plants except Bhilai.
- (ii) Inadequate availability of coal again largely due to power cuts and power interruptions during this period which affected the entire Jharia Coal fields leading to curtailment in the operation of coal washeries and of coal mines which, in turn, affected production in all the steel plants. It has been estimated that a production of nearly 413,000 tonnes of saleable steel was lost due to power shortage and/or coal shortage resulting from power shortage at the collieries and mines. The plantwise loss on this account is estimated as under:—

|                                |          |        |
|--------------------------------|----------|--------|
| Bhilai Steel Plant . . . . .   | 32,500   | tonnes |
| Durgapur Steel Plant . . . . . | 64,663   | „      |
| Rourkela Steel Plant . . . . . | 57,198   | „      |
| TISCO . . . . .                | 2,35,517 | „      |
| IISCO . . . . .                | 23,674   | „      |
|                                | <hr/>    |        |
| Total . . . . .                | 4,13,552 | tonnes |
|                                | <hr/>    |        |

- (iii) Intermittent slow down and industrial unrest in the Railway especially in the South Eastern and Eastern Railways, in August, 1973, and thereafter from late November, 1973, onwards affecting movement of coal and other raw materials and of finished products and necessitating the imposition of drastic cuts on production in keeping with the minimum flow of raw materials.
- (iv) The production was also affected at Durgapur Steel Plant and to some extent at Rourkela Steel Plant on account of disturbed industrial relations. It has been estimated that in 1973-74, 183,157 man-hours were lost in Durgapur Steel Plant and 52,720 man-hours in Rourkela Steel Plant on account of labour troubles. The value of production lost is estimated at Rs. 5.9 crores and Rs. 7.9 crores respectively.

3.5. As regards shortfall in production of pig iron in Bhilai, the Committee were informed that the capacity of Bhilai Steel Plant is with 6 blast furnaces simultaneously in operation. But only 4 to 5 furnaces could be operated simultaneously. Even though blast furnaces No. 6 was commissioned in July, 1971, all the blast furnaces did not function together on account of:—

- (a) troubles in coke ovens in 1971-72 and 1972-73;
- (b) shortage of coking coal in 1973-74 mainly on account of shortage in power supply and difficult rail transport movement;
- (c) deliberate cut in production in early 1974-75 on account of railway strike and conscious lower oven pushing in the latter months on account of inadequate availability of coal.

3.6. It has been stated that at Bokaro the blast furnace No. 1 was commissioned in October, 1972. During the year 1972-73, the capacity fulfilment had been shown proportionately. During the year 1974-75 part of the hot metal was diverted for steel making.

3.7. As regards the steps taken by SAIL to get the installed capacity for pig iron, utilised, the Committee were informed that the installed capacity of production of pig iron is expressed as the balance of blast furnace capacity after meeting the requirement of pig iron for steel-making. On account of drastic reduction in oven pushing because of shortage of coking coal consequent upon the shortage of power in collieries and washeries as well as problem with the railways during the year 1973-74, there had been a conscious cutback in production at blast furnaces. This has reflected in lower capacity utilisation for pig iron for sale. SAIL had contributed in optimising the production of saleable (saleable pig iron as well as saleable steel) steel with the available rail transport facilities and coking coal. In absolute terms, it may be noted that the production of pig iron in 1973-74 was more than the production during 1972-73 by about 9 per cent.

3.8. In regard to the steps taken by SAIL for improving production, it has been stated that SAIL has taken the following specific measures on short term and long-term basis to improve production at the steel plants:—

1. Close and constant liaison with Ministry of Irrigation and Power, now Ministry of Energy, DVC and the State Electricity Boards to ensure maximum supply of power.

2. Close and constant liaison with Railways for movement of coal and finished products.
3. A number of long term measures are already in hand to bring about an improvement in production from Hindustan Steel Plants such as provision of balancing facilities required to correct existing imbalances in production facilities, capital programmes involving additions, replacements etc., improve maintenance aimed at better equipment availability and planned procurement of spares and refractories and other essential materials.
4. To meet coke shortage an additional coke oven battery at Bhilai and one half coke oven battery each at Rourkela and Durgapur have been sanctioned. While the half battery at Rourkela has been commissioned in October, 1974, the half battery at Durgapur and one additional battery at Bhilai are under construction. Programmes have been drawn up for rebuilding of existing coke oven batteries one by one.
5. For IISCO, the rehabilitation programme to restore the plant capacity to 1.0 million tonnes of ingot steel, drawn up in 1972 is under implementation, envisaging a total expenditure of Rs. 43 crores over a period of 3 years.
6. TISCO has regular programmes of replacement, repair and modernisation.

3.9. In this connection, the Secretary, Department of Steel and Chairman, SAIL, stated during evidence that—

“We have also concentrated in the area of operational efficiency in the plants. As a result, three practical results have come about. Firstly, the consumption of coke especially in Bhilai and Rourkela has been brought down this year; and to that extent it has reflected both in terms of monetary value and in the coke being a scarce commodity. In future, we should be able to improve upon this, once we get a regular supply. It has often been mentioned that the plant has large defectives. The production of defectives in the plant, which was under 4 per cent, has in the last two years, been brought down progressively. We will give you details about it, later. The next thing which we did was, not to look at all the problems, but to try to identify the priority problems.



The priority problem for increasing the production immediately, was the need to pay special attention to inputs, particularly coal, power and transport. Here, practically an almost day-to-day and week-to-week coordination, both centrally from the Steel Authority through its liaison set up and in Delhi with other Ministries, has been achieved; and thanks to the cooperation from the agencies in these areas some improvement has been achieved. Knowing that there was scarcity of energy from the plants and of coke oven gas and of electric power last year, we paid special attention this year to see that this energy is put to proper use. We had decided that the performance of the plant would be measured not by ingot steel—they are of little value—which we had accumulated quite a bit. Ingots were really taking up valuable scarce commodities, but the society could not consume ingots as such. Greater emphasis was on saleable steel. A fair portion of the old ingot stock could be converted into saleable steel. I am glad that according to the financial results of last year, we have got a small surplus of about Rs. 4 crores. The performance this year is expected to be better, but it is too early to predict."

3.10. He added that with a view to improve the industrial relations, which is one of the main factors for low production, the following steps have been taken—

"The authority in the plant pays particularly special attention to industrial relations. Though industrial relations pose a serious problem at Durgapur, it is wrong to say that it acts as an impediment to production. We take pride in the fact that last year especially, when there was a very large increase in the cost of living and when there was crisis in regard to power and coal, even though the production in the plants had gone down and consequently the incentive for the workers—we had no widespread industrial unrest in the plants. It is a sign of the maturity of workers, trade unions and certainly of the management. There was an intermittent trouble in Rourkela; and there has been difficulties in Durgapur, but by and large, industrial relations have been good and sound."

3.11. The Chairman, SAIL, added that as a result of efforts made by them the production in the plants had picked up.

3.12. Asked if SAIL has been able to contribute significantly towards better utilisation of the unused capacity, the Chairman, SAIL, submitted that—

“The actual capacity utilisation is a function of three factors. The first consists of things entirely within the control of the plants. The second consists of areas in which we do not have a direct control and they are part and parcel of the general economy—problems of power, transport, coal etc. The third is the inter-action between industrial labour and management.”

3.13. In this connection, the Secretary, Department of Steel added during evidence that—

“The principal factors on which emphasis has been laid to ensure that there is full utilisation of the installed capacities relate, first and foremost, to the provision, on an uninterrupted basis, of essential inputs which are power, coking coal, transport and refractories. There was also coordination with the agencies concerned and the supplying units, and I am glad to say that, in the first ten months of the current year, in the context of a low increase in the general industrial production, steel production is higher by 9.6 per cent which, I think, is of some significance.

The other area in which we have concentrated is ensuring continued stability of industrial relations, and I am glad to say that, during the last year, there has been an improvement. Otherwise, we would not have been able to achieve a higher level of production. The Joint Negotiating Committee has played an important role. We have also had a good response in most of the plants from the Unions, from the workers, and also the management. In the Alloy Steel Plant at Durgapur, the improvement in the last six months, and more particularly in the last three months, is something heartening. We have never produced so much there. Above all, in terms of profitability also, this Plant had lost heavily, but during the last three or four months, it has turned the corner. I hope no additional factors will arise to the contrary.”

3.14. As regards the reasons for loss in production in 1973-74, he added that—

“The loss was mainly due to the very severe problems, the plants faced on account of power, particularly from the DVC as well as from the Orissa State Electricity Board; DVC serves the Durgapur Plants and also TISCO; Rourkela is served by the Orissa State Electricity Board. Bhilai was fortunate because the power cut in M.P. was not very significant.

The power-cut affected the plants in two ways; directly the operation of the plants and indirectly it affected the coal washeries also. There was also the additional factor in the first three months of the year of the dislocation in transport—rail movement. This year (1974-75) you will see, the improvements in transport and power has helped the plants increase their production.

Another thing was, we tried to see that the operational efficiency at the Plants was improved. Here also some worthwhile results have been achieved which I mentioned the other day and which I can repeat. At Rourkela and Bhilai, the coke consumption rates have been brought down. The percentage of defectives has been progressively reduced. That has contributed to, and will be reflected in, the current year's financial results.”

3.15. Asked about the reasons for production of ingot steel going up, while production of saleable steel had come down, the Secretary, Deptt. of Steel stated that—

“We were not able to use the ingots in the plant for want of adequate fuel balance and power. The second aspect is this. As I have already mentioned, we have decisively shifted the emphasis to producing a larger quantity of saleable steel rather than only ingot steel. We found in the past we had accumulated fairly large stocks of inventories which we considered to be wrong. Therefore, the emphasis was on producing a larger quantity of saleable steel, and in this year this has made a significant progress; we have produced more saleable steel, even though the ingot steel production may be relatively lower. It means also adjusting the fuel balance and the energy.

dispersal in the plants so as to maximise the production of saleable steel."

3.16. When asked about the reasons for non-achievement of targets of production (1973-74), the Committee were informed during evidence that—

"In the fixation of targets, it is often felt that if a higher target is fixed, it will automatically get us a higher production. It is very wrong to fix any unrealistic targets. Therefore, we have desisted from the practice of arbitrarily fixing the targets from the top and issuing the orders. We feel that fixation of target is something which should be decided after involving the various agencies concerned, particularly, those connected with supply of coal, supply of power, supply of transport, i.e. the Railways and then the people who will produce the results, namely, the workers, the managers and the technicians; then only the targets should be fixed, so that people may not take things easy so far as fixation of targets is concerned but will go through the various things to see whether the view point as expressed cannot be matched or improved during discussions. And it is in this manner that the targets have been fixed. I would, therefore, humbly submit the targets which are fixed are not fixed arbitrarily. The second aspect is when targets are fixed arbitrarily at higher rate purely on arbitrary basis then the production incentives are linked to that and the workers are not able to earn those incentives. Then it will bring about frustration and weakening of industrial relations. Therefore, the targets we fixed for 1973-74 were not fixed arbitrarily and also were not fixed from the top and bureaucratically."

He added that—

"In 1973-74 and 1974-75 we had attempted to try and fix targets in a realistic manner. The fixation of the targets in 1974-75 certainly with experience of 1973-74 is more realistic because we have made progress in the same direction, viz. greater involvement of those who produce and greater involvement of those who supply the inputs. In 1973-74, there was an additional factor of totally unforeseen position which arose from power-cuts. We were

operating at higher level of production in February and March but in April there was an unprecedented and unforeseeable power crisis thrust on us."

Production of Ingots as well as Saleable Steel during 1974-75 in respect of Main Integrated Steel Plants in comparison to their production in 1973-74 is given below in the following table:—

(In '000 Tonnes)

| Sl. No.                  | Plant                      | Production during 1974-75 |             | 1973-74 Actuals | 1974-75 in terms of |                 |
|--------------------------|----------------------------|---------------------------|-------------|-----------------|---------------------|-----------------|
|                          |                            | Plan                      | Actuals     |                 | Plan                | 1973-74 Actuals |
| <b>1. Ingot Steel</b>    |                            |                           |             |                 |                     |                 |
| 1.1                      | Bhilai . . . . .           | 2070                      | 2001        | 1894            | 96.7                | 105.6           |
| 1.2                      | Durgapur . . . . .         | 915                       | 819         | 776             | 89.5                | 105.5           |
| 1.3                      | Rourkela . . . . .         | 1165                      | 1066        | 1081            | 91.5                | 98.6            |
| 1.4                      | Bokaro . . . . .           | 120                       | 124         | 18              | 101.7               | —               |
| 1.5                      | <i>Sub-total</i> . . . . . |                           |             |                 |                     |                 |
|                          | <i>SAIL</i>                | 4270                      | 4010        | 3769            | 93.9                | 106.2           |
| 1.6                      | TISCO . . . . .            | 1760                      | 1722        | 1514            | 97.8                | 113.7           |
| 1.7                      | IISCO . . . . .            | 545                       | 532         | 439             | 97.6                | 121.2           |
|                          | <b>Total</b> . . . . .     | <b>6575</b>               | <b>6264</b> | <b>5722</b>     | <b>95.2</b>         | <b>109.5</b>    |
| 1.8                      | ASP . . . . .              | 82.00                     | 78.36       | 55.26           | 95.5                | 141.8           |
| 1.9                      | MISL . . . . .             | 165.05                    | 141.58      | 156.05          | 85.8                | 90.7            |
| <b>2. Saleable Steel</b> |                            |                           |             |                 |                     |                 |
| 2.1                      | Bhilai . . . . .           | 1655                      | 1693        | 1682            | 102.3               | 100.7           |
| 2.2                      | Durgapur . . . . .         | 672                       | 520         | 377             | 77.4                | 137.9           |
| 2.3                      | Rourkela . . . . .         | 835                       | 812         | 736             | 97.2                | 110.3           |
| 2.4                      | <i>Sub-total</i> . . . . . | <i>3162</i>               | <i>3025</i> | <i>2795</i>     | <i>95.7</i>         | <i>108.2</i>    |
|                          | <i>SAIL</i>                |                           |             |                 |                     |                 |
| 2.5                      | TISCO . . . . .            | 1400                      | 1461        | 1200            | 104.4               | 121.8           |
| 2.6                      | IISCO . . . . .            | 482                       | 414         | 358             | 85.9                | 115.6           |
|                          | <b>Total</b> . . . . .     | <b>5044</b>               | <b>4900</b> | <b>4353</b>     | <b>97.1</b>         | <b>112.5</b>    |
| 2.7                      | ASP . . . . .              | 45.48                     | 36.68       | 35.08           | 80.7                | 104.6           |
| 2.8                      | MISL . . . . .             | 116.20                    | 95.65       | 110.67          | 80.6                | 84.6            |

3.17. It has been stated that the target of production for the five main integrated steel plants for the financial year 1974-75 has been fulfilled to the extent of 97 per cent in the case of saleable steel. The actual production is stated to be the highest attained so far and represents an increase of 12.3 per cent over the previous year's actuals. According to SAIL, production could have been higher but for the production during the earlier part of the year being affected on account of—

- (a) Railway strike in May, 1974;
- (b) Restriction in power supply from DVC upto August, 1974 and from Orissa State Electricity Board from September, 74;
- (c) Inadequate supply of coking coal; and
- (d) Saleable steel production at Bokaro has yet to commence.

3.18. In the case of ingot steel, fulfilment of target has been to the extent of 95.3 per cent and exceeds by 9.5 per cent the production during 1973-74.

#### *Saleable steel into Economy*

3.19. Table below shows the input of saleable steel into the economy during 1973-74 and 74-75:—

| Plant                                  | (in '000 tonnes) |             |                       |  |
|--|------------------|-------------|-----------------------|--|
|  | 1974-75          | 1973-74     | Increase<br>Col.(1-2) | Percentage<br>increase<br>(col.3x100)<br>col.2 |
|  | 1                | 2           | 3                     | 4  |
| <i>Home Despatches</i>                 |                  |             |                       |  |
| Rourkela . . . . .                     | 818              | 710         | 108                   | 15%  |
| Bhilai . . . . .                       | 1737             | 1518        | 219                   | 14%  |
| Durgapur . . . . .                     | 554              | 442         | 112                   | 25%  |
| TISCO . . . . .                        | 1481             | 1143        | 338                   | 30%  |
| IISCO . . . . .                        | 420              | 325         | 95                    | 29%  |
| <b>Total</b> . . . . .                 | <b>5010</b>      | <b>4138</b> | <b>872</b>            | <b>21%</b>                                     |
| ARC Furnaces Scrap re-rollers. . . . . | 655              | 600         | 55                    | 9%   |
| Import arrivals . . . . .              | 917              | 740         | 177                   | 24%  |
| <b>Grand total</b> . . . . .           | <b>6582</b>      | <b>5472</b> | <b>1104</b>           | <b>20%</b>                                     |

3.20. It will be seen from the table that the input of saleable steel into the economy has been 6.582 million tonnes during 1974-75, as compared to 5.478 million tonnes during 1973-74. Import arrivals, have also increased from 7,40,000 tonnes in 1973-74 to 9,17,000 tonnes in 1974-75.

#### *Product-mix and Diversion of inputs*

3.21. The Committee desired to know if any check has been exercised on product mix in different steel plants and if so, the results obtained thereby. In reply the Department of Steel in a written note after evidence stated that the product-mix of the steel plants was given in the Detailed Project Report and so it was not possible to make extensive changes. However, to the extent possible changes have been made to use the existing capacity to cater to priority requirements. There has been a shifting of production to saleable steel as compared to ingot steel. Although the capacity for the production of ingot steel and saleable steel is separate, to some extent, the scarce inputs like power, coke oven gas, transport facilities, working capital etc. can be shifted within limits from the production of steel ingots to saleable steel and *vice-versa*. Since the requirement is greater production of saleable steel emphasis has been shifted towards production of saleable steel as compared to ingot steel to the maximum possible extent. By putting greater emphasis on the production of saleable steel, it has been possible to increase the overall availability of the steel to the community, the objective being to maximise production of saleable steel and ensure minimum inventory holding of the intermediate product ingot steel. The yield of saleable steel from ingots has also improved during 1974-75 as compared to previous 3 years, as can be seen from the table below:—

Ingot to saleable steel yield

| Year                 | Bhilai | Durgapur | Rourkela | TISCO | IISCO |
|----------------------|--------|----------|----------|-------|-------|
|                      | %      | %        | %        | %     | %     |
| As per DPR . . . . . | 78.6   | 77.4     | 68.1     | 75.0  | 80.9  |
| 1971-72 . . . . .    | 80.1   | 70.1     | 71.4     | 78.8  | 78.6  |
| 1972-73 . . . . .    | 80.7   | 75.3     | 71.0     | 80.1  | 77.6  |
| 1973-74 . . . . .    | 82.9   | 70.2     | 70.8     | 80.0  | 77.7  |
| 1974-75 . . . . .    | 81.7   | 72.6     | 71.5     | —     | —     |

(EST)

\*In case of DSP, the yield has been approximated as

*Saleable steel production* %  
 (Ingots rolled at Blooming  
 Mill + Ingots sliced at Wheel Plants).

*Diversion of inputs*

3.22. As regards diversion of inputs from one steel plant to another in a note furnished after evidence the Department of Steel stated that with a view to maximising the output of saleable steel by utilising the scarce input materials to the optimum extent possible, plans were drawn out for transference of ingots from plants having surplus of ingots to the plants having surplus of rolling capacity. For the first ten months a period of the year 1974-75 (April 1974 to January, 1975), as much as 57,000 tonnes of ingots have been diverted from Bokaro Steel Plant (where steel rolling mills were put on trial run only in December, 1974) to Bhilai, TISCO & IISCO. Similarly, from Durgapur Steel Plant, where it was anticipated that production of steel ingots would be more than what the rolling mills would absorb, about 48,000 tonnes of ingots were transferred to Bhilai, TISCO & IISCO are given below:—

*April, 1974—January, 1975*

Dispatches of Prime Ingots

|                  | From Bokaro | From Durgapur | Total    |
|------------------|-------------|---------------|----------|
| Bhilai . . . . . | 20055       | 40,792        | 60,847   |
| TISCO . . . . .  | 22134       | 5,609         | 27,743   |
| IISCO . . . . .  | 14942       | 1,784         | 16,726   |
|                  | -----       | -----         | -----    |
| Total . . . . .  | 57131       | 48,185        | 1,05,316 |

3.23. It has been stated that more than 105,000 tonnes steel ingots were diverted for rolling which had been estimated to have produced a little over 79,000 tonnes of saleable steel. Emphasis was placed on production of more saleable steel for use by economy utilising the scarce inputs like energy, coal etc., rather than accumulation of ingots. It is noteworthy to state that as a result of the



efforts made by the steel plants, saleable steel production from main steel plants during 1974-75 was highest so far.

### Defectives

3.24. As regards the defectives in the Steel plants, the Department of Steel in a written note informed the Committee after evidence that the arising of defectives at the integrated steel plants of public sector in terms of total production of saleable steel for the year 1970-71 to 1973-74 were as given below:—

| '000 tonnes |                              |                       |      |  |
|-------------|------------------------------|-----------------------|------|--|
| Year        | Production of saleable steel | Arising of defectives | %    |  |
| 1971-72     | 2597                         | 109.5                 | 4.2  |  |
| 1972-73     | 2988                         | 101.7                 | 3.4  |  |
| 1973-74     | 2795                         | 94.3                  | 3.37 |  |

Some amount of defectives arising in any production, activity was inevitable on account of the following:—

- (i) Initial, set-in period for each campaign of rolling, when trial has to be taken to assess the correctness of the profile and section being rolled.
- (ii) Unplanned and chance interruption in the working of the plant due to reasons such as failure in power supply, breakdowns, strikes, and other reasons.
- (iii) Holding of unduly heavy stocks on account of reasons like bottlenecks in transport, unforeseen shutdowns etc.
- (iv) Stocking of ingots and semis over a long period of time leading to rusting and putting which on further processing give rise to certain arisings of defectives.
- (v) The nature of production also determine the arising. For example, in production of flat products where the surface area per unit of weight is comparatively higher, the arising of defectives is also higher.

3.25. The Department of Steel/SAIL have expressed the view that the arising of defectives at the steel plants were coming down. Though, it was not possible to make defective arising as nil, all efforts were being made to keep them to the minimum.

3.26. As regards norms laid down for defectives, the Committee were informed that since the objective was to arrive at the minimum obtainable arising of defectives, no norms have been laid down for defective arisings.

3.27. The Committee note that although the overall production of ingot steel during 1974-75 has increased over that in 1973-74, it is less than that in 1972-73 in the steel plants of Bhilai and Rourkela. The utilisation of capacity in 1974-75 in respect of ingot steel has been of the order of 80 per cent in Bhilai, 51 per cent in Durgapur and 59 per cent in Rourkela. Similarly in regard to saleable steel though the overall production in terms of quantity has been the maximum in 1974-75, in terms of utilisation of capacity, the percentage has been less than 1972-73 in Bhilai and less than 1972-73 and 1973-74 in Rourkela. The percentage of utilisation of capacity in 1974-75 has been 86 per cent in Bhilai 42 per cent in Durgapur 66 per cent in Rourkela. The main reasons for shortfall in production in 1973-74 are stated to be due to severe power cuts, inadequate availability of coal, intermittent slowdown and industrial unrest in Railways and disturbed industrial relations in Durgapur and Rourkela. It has been stated that production of saleable steel could have been higher but for the production in the early part of 1974 having been affected by Railway strike, restriction in power supply from Damodar Valley Corporation and Orissa State Electricity Board and inadequate supply of coking coal. The Committee were informed that SAIL had taken a number of long term and short term measures to improve production, such as provision of balancing facilities required to correct the existing imbalances. Capital additions and improvements in procurement of spares, refractories and essential raw materials, addition of coke oven battery at Bhilai and one half coke oven battery each at Durgapur and Rourkela and also improvement in area of operational efficiency in the plants, special attention to provision of inputs, improvement in industrial relations etc. The Committee are also informed that SAIL had decided to measure the performance of the Plants not by Ingot steel but by saleable steel, and consequently diverted the inputs of production of saleable steel within limits. SAIL had also transferred from plants having surplus of ingots to plants having surplus of rolling capacity. It has been able to increase the overall availability of steel to the community. The Committee find that the yield of saleable steel from

ingots has improved during 1974-75 as compared to the previous years.

3.28. It has also been stated that in 1973-74 and 1974-75 attempts were made to fix the targets in a realistic manner taking into account the constraints by involving those who produce and those who supply the inputs instead of on arbitrary basis as in earlier years. The Committee, however, find that there is still a large gap between rated capacity of the plants and actual production. The extent of production loss due to external factors as well as internal causes and the loss in net contribution on saleable, pig iron and saleable steel has also been stated to be of the order of about Rs. 27 crores in 1974-75 as compared to the loss of Rs. 35 crores in 1973-74. The Committee would like to judge the performance of SAIL which has the object of coordinating the activities of subsidiaries and input industries, on the basis of the results actually achieved. In the opinion of the Committee constraints of a general nature, whatsoever, should not be made excuses for not achieving the rated capacity. The Committee cannot overemphasise the need for more concerted measures to remove the constraints and for securing optimum utilisation of rated capacity and increased production from the steel plants on which huge investments had been made, not only to meet the internal demand but also to improve the exports to earn the most needed foreign exchange.

3.29. The Committee note that though the percentage utilisation of capacity of pig iron in Bhilai, Durgapur and Bokaro Steel Plants during 1974-75 has been of the order of 59 per cent, 42 per cent and 69 per cent as compared to 56 per cent, 33 per cent and 75 per cent respectively during 1973-74, there is still a large gap between actual utilisation and rated capacity. The Committee are informed that the shortfall in production in Bhilai is because of non-operation of one of the six blast furnaces on account of troubles in coke ovens, shortage of coking coal and inadequate availability of coal. It has been stated that in Bokaro, Blast Furnace No. 1 was commissioned only in October, 1972. The Committee were informed that installed capacity of production of pig iron is expressed as balance of blast furnace capacity after meeting the requirements of pig iron for steel making on account of drastic reduction in oven pushing because of shortage of coking coal, restriction on power, problem with railways, there had been a conscious cut back in the production of blast furnaces. The Committee recommend that SAIL should keeping in view the need for optimising production of saleable pig iron as well as steel, take appropriate steps to remove the constraints and improve the utilisation of pig iron capacity.

### C. Durgapur Steel Plant

3.30. Production of ingot steel and saleable steel at Durgapur Steel Plant during the period 1964-65 to 1974-75 is indicated below:

Production in thousand tonnes

| Year    | Rated capacity | Ingot Steel | Rated capacity | Saleable steel | Rated capacity | Saleable pig iron |
|---------|----------------|-------------|----------------|----------------|----------------|-------------------|
| 1964-65 | .              | 1006        |                | 721            |                | 396               |
| 1965-66 | .              | 1002        |                | 634            | 300            | 331               |
| 1966-67 | 1000           | 754         | 814            | 550            |                | 201               |
| 1967-68 | .              | 738         |                | 527            |                | 278               |
| 1968-69 | .              | 823         |                | 500            |                | 375               |
| 1969-70 | .              | 818         |                | 494            |                | 376               |
| 1970-71 | .              | 634         |                | 413            |                | 330               |
| 1971-72 | 1600           | 700         | 1239           | 432            |                | 271               |
| 1972-73 | .              | 723         |                | 477            |                | 279               |
| 1973-74 | .              | 776         |                | 377            |                | 99                |
| 1974-75 | .              | 819         |                | 520            |                | 129               |

(SMS under expansion commissioned in August, 1969.)

3.31. As would be seen from the above, the production of 819,400 tonnes of ingot steel and 520,000 tonnes of saleable steel in 1974-75 is the higher since 1969-70 and 1967-68 respectively. The factors leading to better production in 1974-75 are stated to be as under:—

- (1) Rebuilding of coke oven battery No. 1, which was recommissioned in two halves in February, 1974 and December, 1974 and repairs to other batteries.
- (2) Effective coordinated supply of raw materials.
- (3) Improvement in DVC power supply particularly from September, 1974 and effective coordination and follow up.
- (4) Emphasis in production of saleable steel as compared to ingot steel.

3.32. SAIL is stated to have assisted DSP specifically in respect of (2), (3) and (4) above.

In a note after evidence, the Department of Steel informed the Committee that during the year 1974-75, Director (Technical), SAIL, had held regular review meetings of production of Durgapur. Detailed discussions were held with all senior personnel of plants to know actual bottlenecks and how such problems could be solved. Problems pertaining to technology, operation, maintenance and supply of inputs including power and imported materials were discussed in these meetings and actions outlined. The question of supply of coal and limestone to Durgapur Steel Plant was also discussed keeping in view the trends of supply from various sources.

3.33. As per DPR, coal for DSP was to be supplied from DSP's own washery by washing raw prime coking coal from Jharia, supplemented by direct feed medium coking coal from Barakar and blendable coal from Dishergarh coal-fields. Keeping in view the shortfalls in production of washed coal from DSP washery, additional quantity of washed coal from Patherdih and Lodna washeries was arranged for Durgapur. All steel plants had suffered shortage of coal during Railway strike and disturbances in Railways during 1973-74 and earlier part of 1974-75 and Durgapur was no exception.

3.34. Supply of limestone from DSP previously used to come from mines of M/s. Bisra Stone and Lime Company Ltd., Birmitrapur. At the instance of DSP and also keeping in view the need for developing supplementary source of limestone for Durgapur, additional quantity of limestone was planned and moved from Bhavanthpur limestone quarry of Bokaro Steel Plant over and above the supply from Birmitrapur.

3.35. It has been stated that the supply of coal, iron ore, limestone, power and rail transport for Durgapur Steel Plant is continuously watched by SAIL in association with Railway Board, BCCL, CMAL, Ministry of Energy and DVC in addition to the normal machinery of DSP which is supposed to arrange all these supplies. SAIL Monitoring Cell at Calcutta also watches the position of supply of major raw materials to Durgapur Steel Plant and co-ordinates with South Eastern and Eastern Railway, and whenever necessary, these materials are supplied to DSP by diverting from other destinations.

3.36. All the steel plants face operational difficulties both due to external and internal factors. The steel plants at Bhilai and Bokaro, for example, took vigorous steps to follow up the decisions taken to find optimum solution to these problems by constant follow up and

pursuation, such initiatives were lacking at Durgapur. In view of problems of rail transport, Bokaro had made arrangements for movement and unloading a part of their coal requirement by road, while in case of Durgapur, the road transport of coking coal was arranged by them only marginally though they are located in the coal belt. Similarly, Bhilai accepted the challenge of trying a new source of medium coking coal in Madhya Pradesh (Damua-Kali-chappar).

3.37. The Committee pointed out that in spite of the production in 1974-75 of saleable steel (5.2 lakh tonnes) being 39 per cent higher than that in 1973-74 (3.77 lakh tonnes), DSP suffered a loss of Rs. 14.3 crores in 1974-75 against the loss of Rs. 18.4 crores in 1973-74, and enquired as to how much of the loss suffered in 1974-75 was due to low price charged from Railways in respect of fish plates. Sleepers wheelst axles etc. SAIL in a written reply has stated that when the prices of steel materials were revised in October, 1973, it was decided to keep the prices of plates structurals and railway materials unchanged as these were predominantly used by Government and public sector undertakings--viz. Indian Railways. The prices of fish plates sleepers, wheels sets do not fully cover even depreciation and overheads and the financial implication on this account was Rs. 9.44 crores. A Sub-Committee set up by the J.P.C. comprising *inter alia* representatives of producers and Railway Board is at present examining the cost and price structure of the D.S.P. and its recommendations are awaited.

3.38. In regard to the reasons for ills of Durgapur Steel Plant in a written note, SAIL informed the Committee that the main reasons were:—

- (i) Indifferent industrial relations;
- (ii) Deterioration in conditions of coke oven batteries;
- (iii) Lack of proper maintenance mainly arising out of industrial relations situation and partly on account of inadequate stress on maintenance;
- (iv) Poor and deteriorating quality of coal; and
- (v) Inadequate availability of power during the year 1973-74 and during the first four months of the year 1974-75.

3.39. The Action Committee of the Planning Commission which looked into the problems of Durgapur Steel Plant had submitted a draft Report. It was intended to discuss and finalise the draft report with the Action Committee. Since the term of the Action Committee expired, the report was examined, as suggested by the Action Committee, by Department of Steel and SAIL for implementing such of the recommendations as were considered necessary.

3.40. The Action Committee had pointed out and made recommendations in regard to—

- (i) Coke oven and bye-product plant quality of coal had to be improved and good blending of coal would be necessary to even out fluctuations, improving the handling capacity of the existing coal conveyer belts, improving the feeding arrangement to the Mills by inviting a specialist from U.K. and getting his recommendation, bringing the mills to proper shape by replacing worn out hammers, repairing and rebuilding of coke oven batteries, proper maintenance of blending plants, etc.
- (ii) imbalance in steel melting shop;
- (iii) lower percentage of furnace availability;
- (iv) Blooming Mill—power utilisation (53 per cent only because of high heat delays, breakdown delays, operational delays);
- (v) Improvement of services, Industrial relations, power supply, Management Development & Training.

3.41. The most important recommendation of the Action Committee is as indicated below:

“The Committee is of the view that with the implementation of the suggestions made above and with improved plan maintenance and good discipline it should be possible to reach close to the rated capacity of 1.6 Million Tonnes.... considering the situation that exists at Durgapur and the culture that has developed as a result of continued low production for years together in the past and also considering the fact that the

plant is not in a good shape due to continued neglect in maintenance. Government may accept 1.4 MT of ingot steel per year as a practical capacity from this plant. When all the constraints are removed and the plant maintenance and discipline are brought upto normal standards, it should be possible to improve upon this in future. Thus, by derating the plant capacity from 1.6 to 1.4 MT per year, most of the constraints indicated by the Plant Management in the coke oven, blast furnace and melting shop complexes for achieving 1.6 MT capacity will disappear and no major investment will be necessary at this stage. Any increase in capacity beyond 1.4 MT can be taken care of in expansion of this plant in future."

3.42. In addition, the Action Committee had observed that in view of the importance of the two steel plants (DSP and ASP) to the State economy and in consideration of the past history it may be advisable to institute a Coordination Committee involving the two steel plants and the State Government.

3.43. The Action Committee desired to have by 1st March, 1974 agreed networks on such modifications as were recommended by them as also for the build-up in capacity from year to year, assuming that sanction for the equipment would be forthcoming and there were no constraints on external resources such as power, steel, industrial relations and also the steps taken to put industrial relations on a proper footing.

3.44. According to SAIL, the most important recommendation was with regard to reckoning the practical capacity of Durgapur Steel Plant at 1.4 MT.

3.45. SAIL is of the considered opinion that keeping the past performance in view, the primary task in Durgapur Steel Plant was to increase the production to a level which would instil confidence in the operators and managers of the plant for further improved performance. In the process, bottlenecks, if any, could be considered and removed. It was therefore, too premature to take a view as to the best production that can be obtained at Durgapur if supply of raw materials is steady and other conditions are normal.

3.46. It has been stated that SAIL is pursuing this aspect for the



present and the table below would indicate the build-up of production:—

| Year                       | Ingot Steel |                            | Saleable Steel |                                 |
|----------------------------|-------------|----------------------------|----------------|---------------------------------|
|                            | Quantity    | Increase over production % | Quantity       | Increase over production year % |
| 1970-71                    | 634         | —                          | 413            | —                               |
| 1971-72                    | 700         | (—)10.4                    | 432            | +4.6                            |
| 1972-73 . . . . .          | 723         | (+)3.3                     | 477            | (+)10.4                         |
| 1973-74 . . . . .          | 776         | (+)7.3                     | 377            | ..                              |
| 1974-75 . . . . .          | 819         | (+)5.5                     | 520            | (+)37.9                         |
| 1975-76 . . . . .          | 528         | (+)10.5*                   | 379            | (+)25.0*                        |
| April to October . . . . . | (905)       |                            | (650)          |                                 |

\*increase in annual rate based on first seven Months' output.

3.47. The Committee were given to understand that the outgoing General Manager, Durgapur Steel Plant, made a number of proposals for the improvement of the plant during the last two years.

3.48. Asked about these proposals, SAIL in a written reply stated that while there has been a continuous dialogue between the Chief Executives of the Plants and SAIL in regard to plant operation, it has been stated that it would be impossible to keep records of all such dialogues and discussions. However, the major points given by the former General Manager, DSP and the action taken thereon are indicated below.

#### (1) Installation of additional tiplers for BOX wagons

The proposal was approved by HSL Board in its 166th meeting held on 31-1-1973 and the work for the installation of BOX wagon tipler has been placed on M/s Head Wrightson India Limited on 30-6-1974 at an estimated cost of Rs. 1.51 crores. The expected date of commissioning is July, 1976.

#### (2) Captive Power Station

Steel Authority of India Limited after a comprehensive review made in July, 1973 of likely power situation for the steel plants, suggested feasibility studies for installation of a new captive power

plant for DSP and ASP. Accordingly, DSP commissioned M/s Development Consultants Private Ltd. for making a Feasibility study for installation of captive power station for Durgapur Steel Plant and for Alloy Steels Plant. The proposal of DSP was approved by the HSL Board on 27th May, 1974 and subsequently by the *ad hoc* Committee of SAIL on 24th June, 1974. However, in view of better power generation in DVC and contemplated increase in generating capacity of DVC, it was decided by the Government not to proceed further with the scheme of additional captive generating capacity.

### (3) Limestone property near Ranchi

DSP requested for assistance for acquiring a limestone property near Ranchi. SAIL, with the assistance of the Department of Steel, approached the Mines Commissioner of Bihar for allowing DSP to acquire the property. The Mines Commissioner of Bihar examined the subject in detail in a meeting at Ranchi held in June, 1975. The preliminary thinking of the Government of Bihar is that the property will be acquired by the Bihar Mineral Development Corporation, who would supply DSP BF grade limestone.

#### Stock accumulation:

3.49 It has been observed that the level of accumulated stock of ingots with Durgapur Steel Plant at the end of last three years was as given below:—

| <i>As on</i>       | <i>Accumulated ingot stock<br/>(In '000 tonnes)</i> |
|--------------------|---|
| <i>Stock</i>       |   |
| 1-4-1972 . . . . . | 88.8  |
| 1-4-1973 . . . . . | 51.9  |
| 1-4-1974 . . . . . | 95.4  |
| 1-4-1975 . . . . . | 117.00  |

3.50 According to SAIL, the stock of ingots considered reasonable for normal operation of the integrated steel plants may be taken as two weeks' level of production. For the scale of operation at Durgapur, therefore, a stock of about 40-50 thousand tonnes can be considered as the limit of normal stock. Durgapur Steel Plant was continuously advised and helped to reduce the inventory of ingots.

3.51 During the conference of the Chief Executives of SAIL held in 20-22 March, 1974, the Secretary, Steel, stated, that in view of the extremely limited resources' position, it was necessary for

all the steel plants to exercise strict control over production of surplus ingots. He desired that the ingot steel production should match the programmes of subsequent rolling of the same in the finishing mills, so that no further inventories are built up. In addition, he stressed the need to examine production of saleable pig iron and saleable steel.

3.52. The then GM, DSP stated that over-production of ingots at Durgapur was closely related to the supply of power from DVC. He added that even after shutting down some of the finishing mills, it might not, at times, be possible for Durgapur to consume all the ingots produced at their blooming mills, if adequate power was not made available.

3.53. It has been added that an integrated steel plant is supposed to process the ingots it produces and not to throw up ingots to be taken care of by other steel plants. Ingots, if made and piled up in a plant, are of no use to the community while it locks up in the form of chunks of steel vital and scarce inputs like coking coal, iron ore, power, rail and transport etc. The main problem of DSP was the weakness in the Blooming Mill to roll out the entire quantity of steel produced, thus increasing the stock of ingots continuously. Keeping in mind the special problems at Durgapur, DSP was given assistance by way of sale of 48,400 tonnes of ingots to steel plants at Bhilai, Jamshedpur and Burnpur. In spite of this, the stock of ingots during the year 1974-75 had gone up as much as 21,600 tonnes.

3.54. Increasing ingot stocks were brought to the notice of DSP in the review meetings taken by Director (Tech.) SAIL at Durgapur on 6th September, 1974. General Manager, DSP, at the review meeting pointed out that, out of the stock of 89,500 tonnes of ingot steel, the major portion being in off and high carbon grades, was not acceptable to integrated steel plants for rolling. He, therefore, requested for permission to sell at least a part of this in the market. Director (Tech.) agreed to take this up for a decision in SAIL. This was discussed with Director (C) who issued instructions to the Sales Office to take necessary action. DSP was accordingly advised to contact the Sales Office. The Sales Office explored the market for ingots. The accumulation of ingots, as admitted by GM, DSP, being in off and high carbon grades, was not acceptable to other steel plants who naturally wanted to get good quality tested ingots. Scope of selling them in the home market for being used in small rolling mills was also not there because of the large size of ingots.

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and the labour and cost involved in cutting them to small bits in order to be able to roll them in small mills. Possibility of export was also considered, but had to be given up on consideration of quality and handling difficulties at the ports.

3.55. On 12th September, 1974, GM, DSP requested for disposal orders for about 10,000 tonnes of ingots per month. Director (Tech.) agreed to examine this once again in SAIL.

3.56. The question was examined once again. In view of the ingots being in high carbon and off grade quality, disposal asked by DSP could not be arranged.

3.57. The Durgapur Steel Plant mentioned that although the stock of cold ingots has depleted appreciably and all efforts are being made to roll out the same in good numbers, still disposal of high Carbon ingots, both, intested and off grade qualities was a problem. The ingots, being of 8 tonne size, they have no outlet for forging purposes in the country.

3.58. Director (Technical), SAIL emphasised the need to set aside good tested ingots from production for export and to consume as much as possible ingots from stock. DSP mentioned that Commercial Directorate, SAIL has already been given details of disposeable ingots and therefore SAIL International should be able to get orders without making any further reference to DSP.

3.59. SAIL International considered the possibility of export, but in view of the ingots being in off and high carbon grades and also considering difficulties in handling at the ports and the sag in the international market, disposal of the required quantity could not be arranged.

3.60. The Committee note that Durgapur Steel Plant has achieved production of 8.19 lakhs tonnes of ingot steel and 5.2 lakhs tonnes of saleable steel in 1974-75, the highest since 1969-70 and 1968-69 respectively. Still the capacity utilisation has been only of the order of 50 per cent in ingot steel and 42 per cent in saleable steel. Even this is stated to have been possible because of rebuilding of coke oven battery No. 1 and repairs to other batteries and SAIL's assistance in effective coordinated supply of raw materials and power and emphasis in production of saleable steel as compared to ingot steel. Supply of coal and lime stone was discussed from time to time during 1974-75 by SAIL officers and arrangements were made for supply

of additional washed coal from Pather and Lodna washeries and additional quantity of lime stone from Bhavathpur lime store queries, of Bokaro Steel in addition to supply from Birmitrapur. It has been stated that supply of coal, iron ore, lime stone, power and rail transport for DSP is being continuously watched by SAIL in association with Railway Board. BCCL, CMAL, Ministry of Energy and D.V.C. SAIL monitoring cell at Calcutta also watches the position of supply of major raw materials to DSP and coordinates with S.E. and Eastern Railways and if necessary these materials are supplied to DSP by diverting from other destinations. The Committee feel that these are steps which should have been taken by DSP management from time to time much earlier. The main reasons for the ills of Durgapur Steel Plant were—

- (i) indifferent industrial relations;
- (ii) diversification of condition of coke oven batteries;
- (iii) lack of proper maintenance arising mainly out of poor industrial relations and partly on account of inadequate stress on maintenance;
- (iv) poor and deteriorating quality of coal; and
- (v) inadequate supply of power.

3.61. The Committee were however informed that while other steel plants, when they faced operational difficulties, took various steps to follow up decisions taken to find optimum solution to the problems by constant follow up, such an initiative was lacking in Durgapur.

3.62. The Committee also find that the Action Committee which went into the problems of Durgapur Steel Plant submitted a draft report as early as in 1973 and made a number of important recommendations regarding coke oven and by-product plant improvement and maintenance, imbalance in steel melting shop, low percentage of furnace availability, poor utilisation of blooming mill, improvement of services, industrial relations, power supply, management development and training. With the implementation of these it should be possible to reach close to the rated capacity of 1.6 million tonnes. Considering the situation in Durgapur, the action committee recommended that government might accept 1.4 M.T. of ingots as the practical capacity for the plant. The Committee find that SAIL has considered the recommendation regarding derating of the plant as the most im-

portant recommendation for the present and according to it the primary task was to increase production to a level which would create confidence for further improved performance. Though the committee welcome the steps taken to improve the performance of Durgapur Steel Plant during 1974-75 the committee feel that Government/SAIL should have taken a decision on the recommendations of Action Committee and take concerted and coordinated efforts to improve the performance so as to reach not only the attainable capacity of 1.4 million tonnes but to attain the full rated capacity of 1.6 million tonnes.

The Committee also recommend that SAIL should in particular take immediate suitable measures to improve the utilisation of the blooming mill and thus the performance of the plant.

3.63. The Committee were given to understand that the Outgoing General Manager, D.S.P. gave some suggestions important amongst which were—

- (a) installation of additional tipplers for box wagons;
- (b) installation of captive power stations;
- (c) acquisition of lime stone projects at Ranchi.

3.64. The Committee are informed that while a decision has already been taken in regard to captive power plants, the additional tipplers for box wagons are expected to be commissioned by July, 1976. The question of acquisition of lime stone property near Ranchi is to be settled by the Mineral Development Corporation of Bihar. The Committee desire that SAIL should take steps to ensure that there is no slippage in the schedule of commissioning of the tipplers. The Committee would also like SAIL/Government to pursue the matter with the Government of Bihar so that acquisition of lime stone property in Ranchi is not delayed. The Committee would like to be kept informed of the results.

3.65. The Committee find that there has been an accumulation of ingots with Durgapur Steel Plant to the extent of 1.17 lakh tonnes. According to SAIL, a stock of 40,000 to 50,000 tonnes of ingots is considered as the limit of normal stock and Durgapur Steel Plant has been advised to reduce its inventory of ingots. The Committee are informed that over production of ingots is closely related to supply of power from Damodar Valley Corporation and the main problem of Durgapur Steel Plant was the weakness of Blooming Mill to roll out the entire quantity of steel produced thus increasing the stock of ingots continuously. It has been stated

that SAIL has already given assistance to Durgapur Steel Plant to sell/dispose of 48,400 tonnes of ingots to steel plants to Bhilai, Jamshedpur and Burnpur and in spite of this the stocks had gone up during 1974-75. The Committee are informed that major portion of ingots in off and high carbon grades was not acceptable to integrated steel plants, nor was there scope for selling them to small rolling mills, because of their sizes. Exports of these varieties could not also be arranged due to sag in the international market. As accumulation of such stock of ingots without use to the community results only in the necessary locking up of capital besides wastage of inputs like coking coal iron ore, power etc., the Committee would like SAIL to go into this problem critically and regulate the production of ingots of requisite quality and also take steps to keep the inventory of ingots to the required level.

#### D. Alloy Steels Plant

3.66. The Alloy Steels Plant was constructed with a view to meet the alloy and special steel requirements of the country. The major production units were completed by the end of 1967. The Sheet Mills, however, was completed in the First quarter of 1968-69. The total investment in this plant is approximately Rs. 735 million as on 31-3-1974.

3.67. The plant was designed for an initial production of 100,000 tonnes of ingot steel processed into 60,000 tonnes of finished saleable steel per year. Provision has been made in the basic planning and design for eventually raising the capacity of this plant by approximately 300,000 tonnes per year or even more.

3.68. The production of this plant during the last 5 years is given below:—

|                | Annual rated capacity | 1970-71 | 1971-72 | 1972-73 | 1973-74 | 1974-75 |
|----------------|-----------------------|---------|---------|---------|---------|---------|
| Steel ingot    | 100,000               | 50,584  | 56,181  | 60,603  | 55,262  | 78,358  |
| Salcable steel | 60,000                | 34,783  | 28,708  | 32,107  | 35,074  | 36,693  |

3.69. During the period upto 1972-73, the plant has been working at around 50 to 60 per cent of the installed capacity. The major reasons for not operating the plant to full capacity have been poor industrial relations, shortage of electric power and certain constraints in the facilities provided in the plant.

3.70. During 1973-74, power restriction from Damodar Valley Corporation was the major constraint which accounted for a direct loss of 14,800 tonnes of input. However, the main highlight of production during 1973-74 was the optimisation of high value products. This was also maintained during 1974-75.

3.71. Production of steel ingots and saleable steel at Alloy Steels Plant during the year 1974-75 was an all time record. The plant also earned a profit of Rs. 1.96 crores for the first time since its inception. The production, however, still fall short of the targets because of the power shortage and equipment breakdown particularly in the forge shop. It has been stated that the economies of the DSP greatly depended on the product-mix and efforts are constantly being made to optimise production of critical quality steels which fetch more returns within the framework of order booking, besides improvement of industrial relations, managements development and training and constitution of Co-ordination Committee involving the two steel plants and State Government.

3.72. The Action Committee which was appointed to go into the constraints in Alloy Steels Plant in their draft report recommended the following seven items of capital expenditure.

| Sl. No. | Item  | Cost estimated by the Action Committee (Rs. in crores) |
|---------|---|--|
| 1.      | Installation of a Jobbing Mill . . . . .  | 5.0  |
| 2.      | Coil Handling Facilities . . . . .  | 0.16   |
| 3.      | Cold Drawing Facilities . . . . .   | 2.0  |
| 4.      | Extension of sheet mill building . . . . .  | 0.46   |
| 5.      | Installation of an additional re-heating furnace for Forge Shop . . . . .             | 0.15   |
| 6.      | Extension of Mould Stripper Bay and provision of a higher capacity OT Crane . . . . . | 0.33   |
| 7.      | New Steel Foundry . . . . .   | Not estimated.   |

3.73. It was intended to discuss and finalise the draft report with Action Committee. Since the term of Action Committee has since expired the recommendations of Action Committee are stated to be under examination of SAIL/Government. It was stated that while none of the schemes were under consideration, the production of



Alloy Steels Plant had improved significantly during the last few months. Production of ingot steel and saleable steel at Alloy Steels Plant during the period April 1974 to January 1975 as stated below:

(in tonnes)

| Month                | Production  |                |
|----------------------|-------------|----------------|
|                      | Ingot steel | Saleable steel |
| Rated capacity/month | 8333        | 5000           |
| April 1974           | 1940        | 1947           |
| May 1974             | 5383        | 2376           |
| June 1974            | 5911        | 3308           |
| July 1974            | 6798        | 3524           |
| Aug. 1974            | 6998        | 3602           |
| Sept. 1974           | 7238        | 3726           |
| October 1974         | 7031        | 2784           |
| November 1974        | 6521        | 2790           |
| December 1974        | 8232        | 3290           |
| January 1975         | 8744        | 2624           |

The production of ingot steel in January, 1975 had been of the order of 105 per cent of the rated capacity.

3.74. It has been stated that vigorous action is being taken to improve production of saleable steel further. Though no programme has been made for replacement of equipments in forge shop, certain additions and modifications are being carried out by the plant for improving the production at the forge shop.

3.75. Asked as to how the idle capacity in Blooming, Billet & Bar Mills were proposed to be utilised and imbalance set right, the Committee are informed that Alloy Steels Plant, as the first stage, had been built to produce 100,000 tonnes of ingots to be converted to 60,000 tonnes of saleable steel. It is generally customary to provide a Primary Mill with a higher capacity. In case of Alloy Steels Plants, the Blooming and Billet Mill has the capacity of 300,000 tonnes per annum on the basis of three shifts running.

3.76. All the facilities at ASP from steel making heating to finishing was set up to process only 100,000 tonnes of ingots, out of which

86,000 tonnes was to be rolled in the Blooming mill by running the mill for one shift a day and the balance forged. Thus the other two shifts remain idle. The in-built capacity of Blooming mill could only be utilised if all the principal facilities in the plant starting from the steel making, heating to rolling and finishing were expanded to suit the higher production. The cost of these so-called un-utilised portion of the mills was a very small fraction of the total cost that would be needed to utilise this mill to its full capacity. For instance, 1972 estimate had shown that to expand the Alloy Steels Plant to a capacity of 300,000 tonnes of ingots, it would cost about Rs. 130|- crores whereas cost of the Blooming and Billet Mill, when it was erected, was not more than Rs. 17|15 crores.

3.77. It has been stated in a steel plant, the unutilised capacity of a Blooming Mill is not considered as an idle capacity. It is only utilised when a decision is taken to expand the plant. As an example, it may be stated that Rourkela, Durgapur and Bhilai Steel Plants started with capacity of a million tonnes of ingots while their Blooming Mill capacities had been 1.8, 1.6 and 2.5 million tonnes which were integrated in subsequent years to revised production objectives.

3.78. In view of the above, the higher capacity of the primary mills need not be considered as an imbalance and therefore, the question of suffering loss does not arise. As a matter of fact, this plant has not utilised more than 65 per cent of the rated capacity of the Blooming Mill even on one shift running basis till middle of last year on sustained basis.

3.79. It was added that no decision has yet been taken regarding expansion of the plant.

3.80. As regard the economics of production in strip form, the Committee were informed that at present there was no installation in the plant which could produce cold rolled strip in coils. In order to make such products, it would be necessary to provide completely new installations both for hot rolled and cold rolled strips. As the expansion of the plant has not come as expeditiously as envisaged in the project report, the plant has proposed to have a jobbing mill, to take care of the imbalance in production facilities.

3.81. The Committee note that during the period up to 1973-74, the Alloy Steels Plant has been working up to 50 to 60 per cent of the installed capacity. The production during 1974-75 has been of the order of 78400 tonnes of ingots against the rated capacity of

1 lakhs tonnes and 36700 tonnes of saleable steel against the rated capacity of 60,000 tonnes. Although production during 1974-75 has improved, the actual utilisation is still less than the rated capacity. The Committee are informed that the reasons for shortfall were power shortage and equipment breakdowns particularly in forge shop. It has been stated that the economics of the plant greatly depended on the product-mix and efforts are constantly made to optimise production of critical quality of steels which produce more returns, within the frame work of the order-booking.

3.82. The Committee find that the Action Committee of Planning Commission which went into the working of Alloy Steels Plant had recommended seven items of capital expenditure besides improvement of industrial relations, management development and training constitution of Coordination Committee etc. The Committee understand that suggestions of Action Committee are still under consideration of SAIL/Government. It has been stated that vigorous action is being taken to improve production of saleable steel and certain additions and modifications are being made for improving production at forge shop. The Committee would like to be informed of the result achieved as a result of various measures taken and modifications made. The Committee expect that SAIL/Government would critically examine the suggestions of the Action Committee with a view to improving the production performance of Alloy Steels Plant particular reference to such critical items of steel as would reduce imports and produce more returns and also to attain the full rated capacity of the plant.

3.83. The Committee note that there has been an imbalance in the blooming billet and bar mills of the Alloy Steel Plant. While the steel plant in the first phase has been built to produce 1 lakh tonnes of ingots to be converted into 60000 tonnes of saleable steels, the blooming and billet mill which has the capacity of 3 lakh tonnes per annum on the basis of 3 shift running has to be utilised for only one shift a day keeping the two shifts idea. The Committee are informed that the in-built capacity of blooming mill could only be utilised if all the principal facilities in the plants starting from steel making, heating to rolling and finishing were expanded to suit the higher production. Though the Committee are unable to share this view, the Committee find that no decision has been taken regarding expansion of the plant. It has been stated that SAIL is proposing to take care of the imbalance in production facilities by having a jobbing mill in view of the time taken for consideration of expansion. The Committee have given their recommendations in

**regard to expansion of Alloy Steel Plant in a subsequent Chapter of this Report.**

### **E. Bokaro**

3.84. In a note furnished after evidence the Department of Steel stated that the first stage of Bokaro Steel Plant (1.7 MT stage) was originally projected for completion by March, 1971. This schedule had to be revised from time to time because of various difficulties encountered during the course of construction. The major contributory causes were:

- (a) Initial delay in getting possession of land required for the plant under the then prevailing drought and scarcity conditions in Bihar;
- (b) Delay in manufacture and supply of equipment in sequence by indigenous manufacturers;
- (c) Industrial unrest among workers, especially of contractors, leading to prolonged stoppage of work in some critical area; and
- (d) Delay, at times, in the supply of essential inputs such as refractories, matching sections of steel, cement, industrial gases etc.

3.85. A detailed review of the progress of work both with regard to the balance work for the First Stage (1.7 MT) and the work to be done for the expansion stage (4.0 MT) of the plant was stated to have been made by Bokaro Steel Limited in October, 1974 in consultation with main organisations concerned with equipment supply| construction, consultants and soviet specialists. As a result of this exercise, the construction schedule has been updated. According to the updated schedule, the first stage is expected to be completed by December, 1975. Actually, all facilities required for a production capacity of 2.50 million ingot tonnes are likely to be completed by this date. The cold rolling mill of the first stage will be ready a year later. The 4.0 MT stage is projected for completion by December 1977 and the cold rolling mill complex of this stage will come up in 1979.

3.86. SAIL/Steel Ministry are stated to have been giving all assistance to the Plant Management in the procurement of essential inputs, in the follow-up of equipment supplies by indigenous manu-

facturers, particularly public sector undertakings, in securing clearance for import of equipment from the DGTD|CCI&E and in the follow-up with Soviet Organisations for supply of technical documentation, equipment and materials. There was a close monitoring of the progress of work by SAIL|Department of Steel. The progress was also frequently reviewed in the meetings of the Board of Directors of Bokaro Steel Limited which include representatives of SAIL and the Government.

3.87. The Committee note that the first stage of 1.7 million of Bokaro Steel Plant which was originally projected for completion by March, 1971 had been delayed. Major contributory causes were stated to be initial delay in getting possession of land, delay in manufacture and supply of equipment by the indigenous manufacturers, industrial unrest and occasional delays in the supply of essential inputs such as refractories, matching sections of steel, cement, industrial unrest, etc. The Committee note that a detailed review of progress of work was conducted and as a result of this exercise the construction schedule has been updated according to which first stage is expected to be completed by December, 1975. The four million stage is projected for completion by December, 1977 and the Cold Rolling Mill Complex by 1979. The Committee are informed that the SAIL/Steel Ministry have been giving all assistance to the plant management in the procurement of essential inputs, follow-up of equipment supplies by indigenous manufacturers, securing import clearances, etc. SAIL/Department of Steel are stated to be closely monitoring the progress of the work and reviewing the progress. The progress is also stated to be reviewed frequently by the Board of Directors of Bokaro Steel. The Committee would urge that SAIL/Government should ensure that there is no further slippage in the programme of completion and the revised schedules are adhered to.

#### F. Mini Steel Plants

3.88. It has been stated that as on 1st December, 1974, letters of Intent/COB/Industrial Licences have been granted to 150 parties for setting up electric furnace units mainly for the production of mild steel ingots. In addition, 42 units are registered with the Iron and Steel Controller under the Liberalised Industrial Licensing Policy. Thus, in all 192 units have so far been permitted with an aggregate annual capacity of 41.73 lakh tonnes. State-wise break of the above units/capacity is indicated in the statement annexed (Appendix II). In addition, there are 12 units for production of alloy and special steels and 49 units for production of castings (castings come under

the Ministry of Industry and Civil Supplies and not the Department of Steel).

3.89. Out of the 192 electric furnace units accorded registration/granted letters of Intent/COB/Industrial Licences. 59 units were reported to have gone into production. A number of new units which are ready for going on stream have not been able to commence production for want of power supply. As soon as the power supply position improves, these units are expected to go into production.

3.90. The production of saleable steel from the integrated steel plants was 4.478 million tonnes during 1971-72, 4.793 million tonnes during the year 1972-73, and 4.353 million tonnes during 1973-74. The liquid metal production by all electric furnace units during the last three years has been reported to be roughly as follows:—

| Years   | Liquid metal production in<br>(million tonnes) |
|---------|--|
| 1971-72 | 1.08 Inclusive of alloy steel and castings.    |
| 1972-73 | 1.04   |
| 1973-74 | 0.79   |

(Of the liquid metal production from electric arc furnace units, about 60% is utilised for production of mild steel, 25% for alloy and special steels, 15% for steel castings).

3.91. The production of steel of the electric furnace units in relation to the total steel production would work out to about 18 to 20 per cent. It was expected that the electric furnace units would continue to play an important role in meeting the steel requirements in the country in the years to come.

3.92. The Committee were informed that in view of the growing shortage of ferrous scrap and the critical power supply position in several States the Government policy at present was to consolidate the capacity already authorised and to regulate the further growth of the industry in keeping with the availability of essential inputs. However, if and when commercial production of sponge iron was established in the country, it might be possible to encourage expansion of the existing units as well as the setting up of further units in this industry, provided the power supply position also improved by then.

3.93. As regards economics of Mini Steel Plants are concerned, no detailed studies are stated to have been undertaken on the invest-

ment pattern *vis-a-vis* cost of production by the Mini Steel Plants to determine its economy. However, a study of the cost of production of this unit is proposed to be undertaken shortly.

3.94. It is stated that electric furnace units enjoy the following advantages over the integrated steel plants—

- (a) Smaller investment—as a 50,000 tonnes per annum units costs about Rs. 3 crores only.
- (b) Shorter gestation period—as these can be commissioned within 2 to 3 years as against 7 to 8 years in the case of integrated steel plants.
- (c) All the equipment required for electric furnaces units is manufactured in the country and no foreign exchange is involved.
- (d) Amenable for more even dispersal to meet local requirements by using locally available raw material.
- (e) Lesser strain on the existing transport network.

3.95. The Committee note that out of 192 electric arc furnace units accorded registration/granted letters of intent/industrial licences, only 59 units were reported to have gone into production. It has been stated that production of steel of the electric furnace units in relation to the total steel production would work out to about 16 per cent to 20 per cent. The Committee were however informed that so far no detailed studies had been undertaken on the investment pattern *vis-a-vis* cost of production and it is proposed to undertake a Study shortly. Also the Government policy is to consolidate the capacity already authorised and to regulate further growth of industry in keeping with availability of inputs. It has been stated that electric arc furnace units have some advantages over integrated steel plants.

3.96. The Committee felt that such studies about the economies of plants *vis-a-vis* cost of production should have been undertaken well in advance before licences for putting up such plants were granted at all. The Committee agree that it is desirable to consolidate the capacity already authorised in keeping with availability of inputs. The Committee urge that Government should lose no time in making a critical evaluation of the working of the plants already put up and also study the economics of such plants in the context of the existing integrated steel plants and improved production of steel. The Committee would like to be informed of the results of such studies.

3.97. The Committee also note that a large number of units have not been able to start production for want of power as the States concerned are not in a position to help them in this matter and further licensing of such units has been discouraged on this account. The Committee desire that the matter regarding shortage of power supply to these units should be taken up at the highest level and adequate programmes for augmentation of power supply for the steel industry may be drawn up on a priority basis.

### G. Cost of Production

3.98. As a regards steps taken to reduce costs by increasing production and reducing overheads, the representative of SAIL stated that:—

“We have concentrated in 4 areas principally and achieved worthwhile results. They have done well in the first area, in the plant. The rate of consumption of coke has been reduced in Bhilai and Rourkela. At Rourkela, there has been reduction. After all, the plants had been criticised in the past, with some justification. The number of defectives that have developed, is large. The percentage of defectives that has come down last year. It is rejected as prime material. Thirdly, in our attempts to bring down costs, we have succeeded fairly well. There have been tremendous increases in costs since 1973 when prices started rising; and a small portion of the inflationary cost has been absorbed by a certain amount of reduction in costs. Even though there has been no increase effected in the prices since April, 1974. I had hazarded a guess, by saying that our profits this year will be somewhat larger than that of last year. We are aware of the position in these defined areas; but there are other areas. The position in regard to overheads is difficult. Overheads have two principal components, *viz.* interest charges depreciation which we generally lump together. There is very little room there. The second part is the fixed charge of labour or the total salaries and wages bill. Here, one can only lesson this as expansion takes place and try to absorb some of the workers from places where we think we have larger staff. Results can be achieved by improving operational efficiency, by improving productivity, by getting less defectives and by having economy in distributive costs.”



3.99. Asked if any study of cost structure of steel plant-wise had been undertaken to identify areas where economies could be effected and steps taken to reduce the cost of production of steel, the representative of SAIL stated during evidence that—

“I would deal with the various steps taken by the Steel Authority of India in the matter of reduction in the cost of production. The cost of production comprises of works costs, fixed costs and overheads. In the matter of works costs, improvement in the consumption norms gives the benefit in the reduction of costs. In Bhilai, the coke rate has been reduced.

The second is, better yield of finished products. This is the performance by the rolling mills, and the fact that the defects have been reduced shows that in the current year there has been a better performance. The fixed costs are the depreciation and interest and in a public sector, to a great extent, the wages and salaries because they are all fixed. If the capacity utilisation is more, then ultimately these costs per tonne come down. Because of the efforts taken by the SAIL to ensure better utilisation, the fixed costs have come down. In the matter of overheads, it is really a question of cash management and also better utilisation of the distribution system; both taken together, the final effect is reflected in the yearly profits. In the year 1971-72 the Hindustan Steel as such suffered a loss of Rs. 44 crores which came down to Rs. 27 crores in 1972-73; and in 1973-74 there has been a profit of Rs. 4 crores. The cumulative effect of all these cost reductions is reflected finally in our profitability.”

3.100. Asked whether any comparative study of the cost of per tonne of steel production and investment per tonne of steel in India and other countries was conducted by SAIL, the witness stated that:

“The latest figures available in respect of the year 1970-71. In the European Common Market the price of C.R. sheets was Rs. 2,120; in USA Rs. 1,693, in Japan Rs. 1,651 and in Rourkela Rs. 1,230. The figures in respect of bars are European Common Market Rs. 196, USA Rs. 980; Japan Rs. 1,778; Bhilai Rs. 881; Durgapur Rs. 1,338. The figures in respect of M.S. plates are: European Common Market Rs. 2,994.”

3.101. Clarifying the position in respect of comparable figures the Secretary of Department of Steel stated that:

"I would like to point out that these figures are derived figures as far as European Common Market, U.S.A., etc., are concerned.

You will appreciate that nobody will really give us their internal position. Therefore, these figures may be taken as derived figures with their own limitations." The representative of SAIL added that: "These are the average figures for saleable steel: Bhilai Rs. 887 per tonne; Durgapur Rs. 1,495; Rourkela Rs. 1,595; TISCO Rs. 1,046; IISCO Rs. 1,426."

3.102. Intervening during discussion the Secretary of Department of Steel stated that:

"The figures by themselves would not give the picture which, I think, the Committee is entitled to understand. The plants have come up at different stages. Therefore, in the cost of production, the very important element is the block which exists. The blocks have come up at various stages and there have also been additions. Secondly, the plants are producing different products. Therefore, the investment that has gone per tonne will vary substantially. In Rourkela the investment per tonne will be higher than the investment per tonne in Bhilai, for example.

The third factor, apart from productivity and production, is the technological process employed there. In Bokaro and some others, we are so equipped that we use a greater percentage of sinter which will help us to adjust the cost.

While inter-plant comparison is important, we have to take into account all these factors and then work out the selling price. There are a number of products which we sell below costs for various reasons, but there are others also which are sold above costs. Therefore, by themselves the figures will not give the correct picture unless you go into the block, what was the net block at a particular period of time and the end product for which this block has been created and so on."

3.103. In a written reply after evidence the Department of Steel intimated that the investment in the existing steel plants within the country revealed the following position:

| Plant                                | Total Investment<br>Rs. in crores | Ingot Capacity<br>('000 T) | Investment/<br>Tonne of<br>Ingot<br>(2-3) |
|--------------------------------------|-----------------------------------|----------------------------|---|
| 1                                    | 2                                 | 3                          | 4   |
| Tata Iron & Steel Co. Ltd. . . . .   | 346.2                             | 2,000                      | 1,731                                     |
| Indian Iron & Steel Co. Ltd. . . . . | 124.7                             | 1,000                      | 1,247                                     |
| Bhilai Steel Plant . . . . .         | 416.5                             | 2,500                      | 1,666                                     |
| Durgapur Steel Plant . . . . .       | 271.4                             | 1,600                      | 1,696                                     |
| Rourkela Steel Plant . . . . .       | 411.7                             | 1,800                      | 2,288                                     |
| TOTAL . . . . .                      | 1,570.5                           | 8,900                      | 1,764                                     |

3.104. The variations were due to the construction of the above Plants at different periods of time and also due to their product-mix, necessitating important variations in the Plant & equipment especially at the finishing stage and in the Mills.

3.105. According to the latest estimates, the 1.7 M.T. stage of the Bokaro Steel Project is expected to cost around Rs. 924 crores. This would mean an investment of Rs. 5435 per ingot tonne. Ultimately at the 4 M.T. stage the total expenditure is likely to be of the order of Rs. 1765 crores. At that stage the investment per tonne of ingot will be Rs. 4414.

3.106. In regard to linking of pricing to cost of production in the context of supplies to Public Sector and railways the Secretary, Department of Steel stated that:

"I would agree for a financial management of any enterprise its pricing must have relationship to its cost of production."

He added that:

"The pricing is fixed in joint coordination with other departments."

3.107. Asked if profits of Rs. 4 crores earned by Steel Plants were due to reduction in cost of production or rise in steel price effected in October 1973, the witness replied that:—

“There are two aspects in successfully running any industrial enterprise. One is the total production and productivity. Cost of production should not be high and it should be according to established norms.

The second thing is you may have high degree of productivity, which includes reasonable control of cost, but if your pricing is unrelated to cost of production you still will be in the negative. Now, the position is when we made changes in prices in October 1973 there was an increase which was purely an adjustment of the levy of excise duty and freight... It would not be correct to say it was a low productivity with high price increase. Price increase was called for. I would say it was a sum total of both correcting the price which was low at that time and also certain amount of reflection of productivity.”

3.108. The Committee note that SAIL has taken various steps to effect reduction in the cost of production. The steps include improvement in consumption norms (e.g. in Bhilai the coke rate has been reduced), better yield of finished goods (e.g. defectives have been reduced due to better performance of rolling mills), better capacity utilisation leading to reduction in cost per tonne of fixed costs and better cash management and distribution system. The representative of SAIL has admitted during evidence that “we are aware of the problem in these defined areas; but there are other areas... we can lessen the fixed charge of labour or total salaries and wages etc. Here one can only lessen this as expansion takes place and try to absorb some of the workers from places where we think we have large staff. Results can be achieved by improving operational efficiency, by improving productivity by getting less defectives and by having economy in distributive costs.” The Committee recommend that Government/SAIL should critically examine and identify the areas in each steel plants where there is scope for reduction in costs, formulate a separate programme for each plant for bringing about economies in those areas, and ensure that the cost reduction programme is implemented in a systematic manner and monitor the results of such programmes.

3.109. The Committee also suggest that there should be continuous review of cost and cost reduction processes so that suitable measures may be taken in time to rectify deficiencies.

**3.110. The Committee also recommend that detailed investigations for development of norms of consumption standards of unit prices for materials and services and labour productivity should be done and efficiency of production should be judged with reference to such norms.**

### **H. Development of Ancillary Industries**

**3.111. In a note after evidence, the Department of Steel have informed the Committee that so far as ancillary industries are concerned, State Industries Directorate is responsible for the initiation and development of ancillary industrial estates. Responsibility for the proper functioning of the ancillary development committee also lies with the respective industries directorates. Nevertheless, it is the declared policy of the public sector to encourage the growth of small scale industries and to give them assistance as far as possible. The policy of giving assistance to small scale industries in terms of know-how, facilities, and the supply of raw materials etc. will continue.**

**3.112. The position in regard to small scale industries surrounding each of the steel plants, is stated to be as follows:—**

- (a) *Bhilai Steel Plant*: The General Superintendent is the Chairman of the Ancillary Industries Committee, set up by the M.P. Government. There are about 45 industrial units big and small in the Industrial Estate set up by the State Government.

Some of these industries have demonstrated a high level of entrepreneurship and have been able to develop items even of sophisticated nature with the technical know-how made freely available from the steel plant. These industries are now in a position to supply items like coke oven doors, door frames, armour frames, grab buckets, sinter car body, crane girders, shear blades, conveyor chains and many other sophisticated items not only as replacement for many steel plants in the country but also as original equipment for construction and expansion of the steel industry. Their growth and development with the assistance of the steel plant has been appreciable and this has enabled some of these industries to come to a level where they are in a position to supply material to other steel plants etc.

Steel Plant has identified items of spares which have a repetitive pattern of consumption and those are ordered on the local industries depending on their capacity and performance on a two year basis.

Identification of such items of spares which can be manufactured by small scale industries is continuously being done and more and more items are being included in the list of repetitive items of spares. For the last six years the value of orders for repetitive items on those industries has been on the increase as will be seen from the following table:

| 3 year period     | Value of orders<br>for Repetitive Items |
|-------------------|---|
| 1969-71 . . . . . | 39.59                                   |
| 1971-73 . . . . . | 82.69                                   |
| 1973-76 . . . . . | 102.63                                  |

In addition to the above, these industries have orders for a number of non-repetitive items also and during the period April, 1974 to September, 1974 these industries received orders for 482 items of a non-repetitive nature, of a total value of Rs. 1.5 crores.

(b) *Rourkela Steel Plant.*

The General Manager is the Chairman of the Ancillary Industries Committee set up by the State Government.

The Growth of small scale industrial units in and around Rourkela has been significant as is evident from the fact that 104 out of 170 such units in the State are located here. An Industrial Estate has grown up at Rourkela having 65 factory buildings and an industrial area adjoining the industrial estate has been developed and leased out to industrial entrepreneurs for setting up their factory buildings.

The small scale industries supplied orders worth Rs. 5 lakhs in 1965, in 1966 Rs. 25 lakhs, in 1969-70 Rs. 1.67 crores and in 1970-71 Rs. 2.12 crores. In the year 1973-74 it reached 5.3 crores. The small scale industries of Rourkela cater to the needs of the steel plant for spare parts for various non-ferrous castings, chemicals, lancing tubes, jute products, wire rope slings, chain slings, refractory materials etc. Some industries have also come up to manufacture finished products by taking raw materials from the plant such as nitric acid, slag etc.

There is further scope for small industries to come up had a list of items which could be manufactured, and a list of arisings from

RSP which could be used by small scale industries, has been handed over to the small scale industries Research and Development Committee, which recently visited RSP.

In addition, with the coming up of RSP, two refractory manufacturing units, a medium mechanical unit, and an explosives factory have come into existence.

(c) *Durgapur Steel Plant.*

The General Manager is the Chairman of the Ancillary and Small Scale Industries Development Committee set up by the West Bengal Government. The General Manager, Alloy Steel Plant, Durgapur, is a member of this Committee. Since 1967, when the construction work of the Durgapur Steel Plant started, large number of industries servicing the needs of the steel plant or the steel population, or connected in some way with the steel plants have come up within an area of about twenty miles. A substantial portion of the products, of these industries is consumed by Durgapur Steel Plant. Raw materials such as Breeze Coke, Slag and pig iron, etc. are supplied by the steel plant to these industries. In addition, some semi-finished equipment produced in the plant are handled by these industries for finishing.

(d) *Bokaro Steel Limited.*

The Bokaro Industrial Area Development Authority (BIADA) was constituted by the Government of Bihar in October, 1972, for developing small, medium and large scale industries around Bokaro Steel Plant. For housing the industrial units, an area of about 908 acres of land is being developed in a phased manner. 163 acres have already been completely developed and allotted and a further area of 96 acres is under development. 189 industrial units have so far been allotted land of these, 55 are now in production and 87 are under construction.

Bokaro Steel Limited have been rendering all possible assistance to the Bokaro Industrial Area Development Authority in the development of ancillary industries. The Managing Director of Bokaro Steel Ltd. is a Director of Bokaro Industrial Area Development Authority and also the Chairman of its standing Committee. An Officer of the level of Assistant General Superintendent has been appointed as Coordinator, Ancillary Industries to coordinate all activities of Bokaro Steel Ltd. for development of ancillary industries. All technical assistance required by ancillary units is given by BSL. Raw materials like steel are supplied to the ancillary

units to the extent of orders placed on them. Rate contracts have been drawn up for items required by the Steel Plant on a regular basis. A number of items made in the ancillary industrial units are purchased regularly by BSL. Orders worth Rs. 42.62 lakhs were placed on the ancillary units by the Plant during 1973-74.

3.113. The Committee note that for encouraging growth of small scale industries, 45 industrial units have been set up, around the Bhilai Steel Plant and these are able to supply maintenance a number of sophisticated items besides maintenance spares such as door frames, armour frames, grab buckets etc. The value of orders for repetitive items have increased from Rs. 39.59 lakhs during 1969-71 to Rs. 102.63 lakhs during 1973-75. A number of orders for non-repetitive items had also been placed on these units and during April 1974 to September 1974 along these industries received orders for 482 items of value Rs. 1.5 crores.

3.114. In Rourkela, out of 170 units in the State, 104 are located around Rourkela and these supplied spare parts for various non-ferrous casting, lancing tubes, chain slings etc. for the steel plant and the total value of orders ranged from Rs. 5 lakhs in 1965 to Rs. 5.3 crores in 1973-74. It has however been stated by SAIL that there is further scope for small industries to come up.

3.115. In regard to Durgapur Steel Plant it has been stated that an Ancillary and Small Scale Industries Development Committee was set up by West Bengal Government and a large number of industries servicing the needs of steel plant or connected with the steel plant or steel population have come up within an area of about 20 miles. A substantial portion of the products of the industries is consumed by Durgapur Steel Plant.

3.116. In Bokaro, the Bokaro Industrial Development Authority was constituted by Government of Bihar for developing small, medium and large scale industries and Bokaro Steel Plant, and 189 units have so far been allotted land out of which 55 are in production and 87 under construction. A number of items made in these units are purchased regularly by BSP, and during 1973-74 orders worth Rs. 42 lakhs were placed on the ancillary units.

3.117. The Committee feel that, although efforts have been made for the development of ancillary industries around each of the steel plants, there is still much scope for the development of the ancillary and small scale industries. The Committee would like SAIL to continue its efforts in this direction so that not only the products of



these units could be utilised to a greater extent by the steel plants and the plants assured of regular and continuous supply of spare parts and other materials but at the same time greater employment potential is created.

3.118. The Committee would, in this connection, invite the attention of Govt./SAIL, to their recommendations contained in paragraph 9.21 of their 40th Report (1973-74) on Role and Achievement of Public Undertakings.

## IV

### PRODUCTION—INPUT

#### (i) IRON ORE

##### (a) Present Position of iron ore requirements.

4.1. The production iron ore in the country from 1971 to 1974 and contribution of the NMDC thereto, is indicated below:

(Qty. in '000 tonnes) (Value in Rs. '000')

| Year       | Total     |         |          |         |       |       | Contribution (%) of NMDC |  |
|------------|-----------|---------|----------|---------|-------|-------|--------------------------|--|
|            | All India |         | NMDC     |         | Qty.  | Value |                          |  |
|            | Quantity  | Value   | Quantity | Value   |       |       |                          |  |
| 1971 . . . | 34,311    | 400,641 | 5,057    | 74,224  | 14.73 | 18.52 |                          |  |
| 1972 . . . | 35,391    | 423,671 | 4,475    | 84,622  | 12.26 | 19.90 |                          |  |
| 1973 . . . | 35,562    | 479,449 | 4,872    | 110,408 | 13.70 | 23.01 |                          |  |
| 1974 . . . | 34,858    | 539,379 | 5,114    | 119,639 | 14.67 | 22.18 |                          |  |

Statistics of iron ore production are normally maintained on calendar year basis.

4.2. The table below show the performance of NMDC against target during the years 1971-72 to 1974-75.

(In lakh tonnes)

| Year          | Bailadila-14 |        | *Kiriburu |        | Total  |        |
|---------------|--------------|--------|-----------|--------|--------|--------|
|               | Target       | Actual | Target    | Actual | Target | Actual |
| 1971-72 . . . | 44.50        | 37.60  | 11.80     | 10.47  | 56.30  | 48.07  |
| 1972-73 . . . | 44.50        | 37.39  | ..        | 5.31   | 44.50  | 42.70  |
| 1973-74 . . . | 49.70        | 43.35  | 9.45      | 6.98   | 59.24  | 50.33  |
| 1974-75 . . . | 38.50        | 38.69  | 13.80     | 11.82  | 54.30  | 50.51  |
|               |              |        |           |        |        | 191.61 |

\* Of the two process lines for which the plant has been designed, only one line has been in operation since November, 1973.

4.3. According to SAIL the following were the major constraints (mine-wise) due to which NMDC could not achieve the targets fixed from time to time:—

**BAILADILA-14:**

- (1) Less recovery of lump ore (64 per cent) than that anticipated in the Project Report (75 per cent).
- (2) Arisings of 10 per cent waste material and Blue Dust not originally catered for in the D.P.R.
- (3) Delay in receipt of critical spares (both imported and indigenous) leading to low availability of plant and equipment; occasional break-downs of plants.
- (4) Inclement climatic conditions at Bailadila.
- (5) During 1973-74, production was affected by unexpected heavy monsoon, lower availability of the plant on account of delay in completion of fine ore expected to be completed by the Contractor in July 1973 but could be commissioned only by September, 1974.
- (6) During the current year, i.e. 1974-75, there was a strike for 35 days in April-May, the affect of which continued for another 10 days. Performance of the plant was also adversely affected by the poor conditions of Apron Feeders. The strike on the Railways during the month of May led to heavy stock piles necessitating cut-back in production. The movement even after this strike was not according to the targets upto November, 1974.

**KIRIBURU**

4.4. The mine which was originally designed for export of lump ore to Japan was later converted for supplies to Bokaro Steel Plant. The Modification and Expansion Scheme to achieve this change over was initiated in December, 1971 and works continued through 1972-73, 1973-74 and 1974-75. Line one of the modification and Expansion Scheme was commissioned in November, 1973 and the second line

is ready except for the Stacker, Reclaimer and Wagon loading arrangements. Supplies of these items from H.E.C. have been delayed. However, the requirements of Bokaro during 1973-74 and 1974-75 have by and large, been met by the mine. SAIL has stated that it had taken the following steps towards removing the constraints and increasing the production from the mines:—

- (1) Reducing the down time of the plant and other production equipment in the mines through better preventive maintenance, programmed overhaul of the equipment, and improving the availability of spares by advance planning keeping in view the lead time for replacement of equipment and acquisition of stores.
- (2) In order to achieve the targetted production of 4 million tonnes per year, inspite of the lower lump recovery factor and waste mining of 10 per cent the total excavation of ROM was being increased to the level of 6.6 million tonnes per year against the DPR estimate of 5.5 million tonnes.
- (3) To overcome constant troubles with the Apron Feeders, arrangements had been made with indigenous sources for supply of apron links and plates. Indigenous supplies were presently being tested.
- (4) In order to study the deficiencies in equipment and plant facilities at Bailadila-14 a high level Technical Committee was appointed. Most of the additional equipment suggested by the Technical Committee had already been commissioned.
- (5) Additional facilities required for systematic maintenance of equipment were being developed, and these would help in improving availability of equipment for increased production.
- (6) Training of managerial and operating personnel.

4.5. To meet the increasing requirements of high quality iron ore for the steel industry and for export the National Mineral Development Corporation had taken up the following programmes:—

1. Continuing modification and expansion of Kiriburu Iron Ore Mines.
2. Development of Mechanised mines at Meghahaturburu.
3. Development of the Donimalai complex.

4. Development of the Kudremukh group of mines.
5. Continuing development of the Bailadila Deposit No. 5 and exploration on Deposit No. 4.
6. Exploration of the Malangtoli Deposits.

4.6. The Committee note that the contribution of National Mineral Development Corporation, a subsidiary of SAIL, to the total production of iron ore in the country has come down from 14.73 per cent in 1971 to 14.67 per cent in 1974 though in terms of actual quantity produced there is a marginal increase from 50 lakhs tonnes in 1971 to 51 lakhs tonnes in 1974. They also note that the production in the NMDC mines has been lower than the targets all these years. The reasons for lower production have been stated to be less recovery of lump ore (64 per cent) from Bailadila than that anticipated in the DPR (75%), arisings of 10% waste material and blue dust not originally catered for in DPR, delay in completion of plant by over one year, delay in the receipt of critical spares (both—imported and indigenous), occasional break-downs of plants, inclement climatic conditions and strike of Railways and its after-effects and also delays in completion of modification and expansion of Kiriburu due to delays in supplies from H.E.C. The Committee were informed that SAIL/NMDC had taken a number of steps to remove the constraints and increase the production from the mines. The steps include better preventive maintenance of equipment improvement in availability of spares, increase in total excavation of ROM to the level of 6.6 million tonnes per year against the DPR estimate of 5.5 million tonnes, arranging indigenous supply of apron links and plates and training of managerial and operating personnel. The Committee were also informed that a high level technical Committee was appointed to study the deficiencies in equipment and plant facilities at Bailadila-14 and most of the additional equipment suggested by the high level Committee had already been commissioned. The Committee were further informed that in order to meet the increasing requirements of high quality iron ore for the steel industry and for export, the NMDC had taken up modification and expansion of Kiriburu mines, the development of Meghahatuburu, Donimalai complex, Kudremukh Group of mines and Bailadila Deposit No. 5 and exploration of Bailadila Deposit No. 4 and Malangtoli deposits.

4.7. The Committee wish to refer to paragraphs 5.56 and 5.57 of their 37th Report (4th Lok Sabha) 1972-73 on NMDC in which they had recommended that the management of NMDC should take all possible steps to increase recovery of lump ore and enhance effi-

ciency in production. Though these recommendations were made as early as November, 1973 they regret to note that instead of showing improvement consistently, the production has gone down from 50 lakh tonnes in 1973-74 to about 36 lakh tonnes in 1974-75. The Committee view with deep concern the fall in production of iron ores to the extent of 14 lakh tonnes in 1974-75 in spite of SAIL's existence to coordinate the inputs. They would like SAIL to go into the reasons for the shortfall and take suitable measures to improve the production of iron ores. The Committee recommend that concerted efforts should be made by SAIL/NMDC to increase recovery of lump ore to bring it nearer to 75 per cent as provided in the DPR and to improve efficiency in production of iron ore in the NMDC mines so that they can meet the increasing requirements of high quality iron ore for the steel industry and for export.

4.8. The Committee need hardly stress the importance of increasing the production in mines so as to enable the steel plants to correspondingly achieve better performance and output.

4.9. The Committee also note that for meeting the increasing requirements of high quality iron ore for the steel industry and export, NMDC/SAIL had taken up new programmes like modification and expansion of Kiriburu, development of mechanised mines at Meghahatuburu, Lonimalai complex, Kudremukh mines, Bailadila No. 4 and 5 and Malangtoli.

4.10. The Committee recommend that the work on these projects should be monitored regularly with a view to ensuring that they are completed not only according to schedule but also to meet the requirements of steel plants to which they have been or would be linked, or become available for the purpose of exports as the case may be.

4.11. The requirement of iron-ore for each of the steel plants since the period these mines came under SAIL, i.e., for the years 1972-73, 1973-74 and 1974-75 and the iron ore mines to which the steel plants have been linked are as indicated below:—

(In million tonnes)

| Name of the Steel Plant | 1972-73    |             | 1973-74    |         | 1974-75     |         | Name of Ore mines linked   |
|-------------------------|------------|-------------|------------|---------|-------------|---------|--|
|                         | Pro-gramme | Consumption | Pro-gramme | Receipt | Consumption | Receipt |  |
| Bhilai . . . . .        | 4.20       | 4.07        | 4.12       | 4.48    | 4.55        | 4.06    | Dalli-Rajhara group of mines   |
| Durgapur . . . . .      | 1.91       | 1.58        | 1.52       | 2.02    | 2.08        | 1.59    | Bolani mine of Bolani ores Ltd. Some quantity of high grade ore for SMS is obtained from market mines in Barajamda through MMTC. |
| Rourkela . . . . .      | 2.08       | 2.01        | 2.04       | 2.27    | 2.37        | 2.01    | Captive mines of Barsua & Kalta. High grade ores are obtained from Barajamda area through MTCO20-25% of its requirements).       |
| Bokaro . . . . .        | 0.76       | 0.60        | 0.53       | 2.01    | 1.80        | 1.39    | Kiriburu mines of NMDC Limited supply of Kiriburu is supplemented by Noamandi Bolani & Goo mines.                                |
| Total . . . . .         | 8.95       | 8.26        | 8.21       | 10.78   | 10.80       | 9.05    |  |

\* Programme of 1973-74 was, on the assumption of stock building before commissioning of Blast furnace No. 2.

4.12. TISCO obtains its entire supplies from captive mines at Noamundi and Joda. After meeting its own requirements, TISCO was able to make available to Bokaro in 1973-74 about 2.98 lakh tonnes of ore fines, dumped previously.

4.13. IISCO's own mines at Gua and Chiria meet its requirement, supplemented by supplies from private sector mine at Thakurani.

4.14. It may be seen from foregoing statement that in the case of Bhilai Steel Plant the receipt matched the consumption. In addition on 1-4-74 Bhilai had a comfortable stock of about 1,53,000 tonnes of lump ore at the plant.

4.15. In the case of Durgapur Steel Plant, the receipts in all the years matched consumption. During 1974-75 it was stated in a written reply that the ore programme for the 1974-75 was based on the anticipated hot metal production of 1.2 million tonnes. The actual production was however 0.92 million tonnes. The receipts exceeded consumption. It has been stated by SAIL that Bolani mine has been supplying ore both from its mechanized section and manual mining section. The mechanized mining section has since been expanded to ensure that it constituted a more stable base for lump ore and graded fines.

4.16. In so far as Rourkela Steel Plant is concerned, the plant received traditionally about half a million tonnes of high grade ores per year from market mines of Barajamda through MMTC. With the commissioning of Bokaro, traffic *via* Rajkharsawan increased and the Railways were reluctant to move this quantity of ore for Rourkela through the same route. Supplies from these market sources declined in 1973-74 to about 164,000 tonnes only from the yearly average of about 500,000 tonnes. Hence, in 1973,74, RSP's receipts were short of consumption, the overall shortfall being met from stock. Though there was no loss of production due to shortage of iron ore, the stocks came down to 12,000 tonnes at the end of the year. This, however, increased to 47,000 tonnes on 1-7-74 and to 86,000 tonnes by the end of September, 1974, by increasing supplies from Barsua and Kalta and arranging additional supplies from Kiriburu mines of NMDC and Chiria mines of IISCO. With a view to finding a stable source for high grade ore for RSP as well as to solve the problem of movement, SAIL agreed to provision of additional line capacity at Rajkharsawan. Besides, the possibility of moving a part of high grade ore by road to convenient rail head located in the Bondamunda-Kiriburu line is also under examination.



4.17. As regards Bokaro Steel Plant, BSL's production did not suffer due to shortage of iron-ore and its own requirements were fully met. The requirements for 1974-75 were based on the planned hot metal production of 0.81 million tonnes. The actual production was, however, 0.75 million tonnes. The ore requirements were stated to have been fully met.

4.18. Until completion of Kiriburu modification, supplied of ore-fines were arranged from Noamundi (TISCO), Bolani and Gua Kiriburu's modification is now complete, except for the ore-fine handling section for which equipments are awaited for HEC. The job is expected to be completed by the end of 1975.\*

4.19. Dalli mines was being developed to meet the additional requirement of Bhilai Steel Plant

4.20. Rourkela Steel Plant was adding balancing facilities at Barsua and developing further Kalta Mines to meet their requirements. Regular supply would also be available from Chiriya deposits of IISCO for Rourkela.

4.21. The Committee note that as against the programme of supply of iron ore to the Bhilai, Durgapur, Rourkela and Bokaro Steel plants during the year 1972-73, 1973-74 and 1974-75 to the extent of 8.95 million tonnes, 10.78 million tonnes, 10.80 million tonnes respectively the actual receipts of iron ore by these plants during the aforesaid periods were 8.26 million tonnes, 8.41 million tonnes, 9.05 million tonnes respectively. The receipts of iron ore in these plants during 1972-73 and 1973-74 generally matched with the consumption excepting in Rourkela during 1973-74 where the receipt of iron ore was short of consumption by 0.16 million tonnes and the shortfall was stated to have been met from the stock already available. The Committee were informed that though the production in Rourkela Steel Plant has not suffered, SAIL agreed to provide for additional line capacity at Rajkharsawan to facilitate transport of iron ore from the Barajamda mines and the possibility of transporting part of high grade ore by road is also stated to be under examination. The Committee feel that this difficulty of transport should have been anticipated by SAIL earlier and the matter regarding provision of additional railway line should have been taken up earlier with the railways and settled in the interest of avoiding held ups at Rajkharsawan. The Committee understand that a sum of Rs. 50 lakhs has since been deposited with the railways for construction of by-pass at Rajkharsawan. The Committee would like SAIL/Government to pursue the matter with the railways to see that the railway line is provided at the earliest.

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\*At the time of factual verification the Ministry stated that "The job is expected to be completed by the middle of 1976."

4.22. The Committee note that, in Durgapur, during 1974-75, the ore supply programme was based on an anticipated hot metal production of 1.2 million tonnes. The actual production was however 0.92 million tonnes and the receipt of ore exceeded the consumption. It has been stated that the mechanised section of the Bolani Mine has been expanded so that it may constitute a more stable base for lump ore and graded fines. The Committee would like to watch the developments in this regard.

4.23. The Committee note that production in Bokaro did not suffer due to shortage of iron ore and its ore requirements were fully met. Though its ore requirements for 1974-75 were based on the planned hot metal production of 0.81 million tonnes, the actual production was only 0.75 million tonnes and the receipts of ore exceeded the consumption. The Committee feel that less consumption of iron ore and consequent loss of production in Bokaro during 1974-75 only indicate that there was scope for improvement in production by full consumption of the receipts. The Committee recommend that all efforts should be made to ensure that production does not lag behind the planned target.

4.24. The Committee note that the completion of the Kiriburu Modification Section is held up because of non-receipt of equipments for all the ore fine handling section. The Committee recommend that SAIL/Ministry should take up the matter with the Ministry of Heavy Industry and the HEC to ensure that there is no further delay in the supplies and the work is completed at least by the revised schedule.

#### Quality of iron ore

4.25. In so far as the quality of iron ore supplied to these plants is concerned, it has been stated that:

##### (a) *Bhilai Steel Plant*

BSP does not obtain any ore from sources other than its own. The Fe-content in blast furnace grade lumps was 62.74 per cent and in

finer for sintering plant was 61.81 per cent. The open hearth grade ore had a Fe-content of 66.32 per cent. Bhilai Steel Plant has a system of quality control that remained in operation ensuring qualitative consistency in the ore charged into the furnaces to the maximum extent possible.

For further improvement in the quality of ore SAIL has provided for washing ore in Dalli mines. SAIL also visualises setting up a Blending Plant at Bhilai for processing the ore further to ensure a very consistent quality.

#### (b) *Durgapur Steel Plant*

Monthly averages of DSP's lump ore ranged between 60.8 per cent and 63.4 per cent Fe, corresponding to qualitative characteristics of Bolani's ore. The average Fe content in fines was stated to be 62.4 per cent.

M/s. Bolani Ores Limited, who have expanded the mechanised section their mines, are studying the feasibility of washing ore fines for Durgapur at least for the quantity that will be required during rains.

#### (c) *Rourkela Steel Plant*

It is only in case of RSP that the overall quantity of the high grade component of the ore-burden has slightly deteriorated from 65.94 per cent Fe in 1971-72 to 64.62 per cent Fe in 1972-73 and to 63.88 per cent Fe in 1973-74 and 62.9 per cent in 1974-75. In 1974-75, the average Fe content in low grade lumps was stated to be 61.8 per cent and in fines 60.9 per cent. This is largely due to the fact that the Barajmda high grade ore moved at the rate of about 15 to 20000 tonnes per months as against about 50000 tonnes per month that RSP was getting earlier because of the movement difficulty via Rajkharsawan. Nevertheless, the overall ore quality was better than project stipulation.

RSP has just completed a programme of intense prospecting under Gewerkschaft Exploration Scheme and has evaluated all the qua-

lity and quantity parameters of the Barsua Deposit, RSP is now in a position to predict fairly accurately the quality of ore that is mined, and also regulate the quality. The constraints in the beneficiation plant have been mostly eliminated.

(d) *Bokaro Steel Plant*

Besides washed fines from Kiriburu, Bokaro has been obtaining supplies of additional ore fines from Bolani and Noamundi strictly according to specifications laid down by them.

4.26. The Committee find that though by and large the iron ore requirements of the steel plants have been met, in regard to quality of ore, Fe content of ore supplied to Bhilai was 62.74% in lump ore, 61.81% in fines and 66.32% in open hearth grade. In Durgapur Fe content in lump ore ranged between 60.8% and 63.4% and in fines it was 62.4%. In Rourkela during 1974-75, the average Fe content in low grade lumps was 61.8 per cent and in fines Fe content was 60.9 per cent. In view of the wide variation of Fe content in lumps and fines supplied to the various steel plants during these years, the Committee are not sure whether low production in steel plants was attributable to the low quality of ores supplied, and variation in Fe content. They desire that the reasons for variation in Fe content should be critically analysed and steps taken to improve the quality of ore and supply the same according to required specifications so as to enable steel plants to achieve better production results and bring down the cost of production. The Committee also recommend that suitable norms should be evolved to ensure best possible utilisation of the available iron ore consistent with the percentage of iron in lump & fines.

#### Future Plans

4.27. The estimated requirement of iron ore (Quality and Quantity) during Fifth and Sixth Plan periods for integrated Steel Plants with indication of the source is indicated in the statement at Appendix III.

4.28. By 78-79, it was expected that the NMDC would produce about 25 to 30 MT, of iron ore. A large part of the requirements of iron ore of the steel plants of about 27.5 MT about 20.35 MT would be met from the private sector. For Bhilai Steel Plant, the requirement has to be met entirely from the captive iron ore mine at Dilli-Rajhara. One mechanised mine at Rajhara with a capacity of 3.5 M.T. per year is already in operation and a new mechanised mine at Dalli

with a capacity of 2.5 MT per year is under construction. Balance requirement of iron ore is met at Bhilai by manual raisings.

4.29. The source for Durgapur Steel Plant is the iron ore mines of Bolani Ores Limited, a subsidiary of SAIL. Bolani Ores Limited are having schemes for augmenting the production and washing of ore fines for improving the quality.

4.30. The source for Rourkela Steel Plant is the captive mechanised mines at Barsua and Manual Mines at Kalta. There are some problems of quality of ore for which Rourkela will have to obtain a part of its requirement as high grade ore from the private sector mines in Barajamda area. The Rourkela Steel Plant has entered into a contract with MMTC for supply of 20,000 tonnes per month w.e.f 1.4.1974 valid for 3 years. Attempts were being made by the management to procure additional quantity of 30,000 tonnes from MMTC.

4.31. The requirements of Bokaro will have to be met from Kiri-buru Mechanised Mines supplemented by suitable quantity of ores from the Barajamda area till such time as Meghahatuburu mines, now under construction, come into operation. The problems associated with finding out adequate supply of iron ore for Bokaro Steel Plant have been studied by the Bokaro Raw Materials Committee in 1972 and by the Barajamda Development Committee under Iron Ore Board in 1974. As a measure for streamlining the rail movement, a sum of Rs. 50 lakhs has been deposited with the Railways for construction of a by-pass at Rajkharsawan against a total estimated cost of Rs. 1.5 crores.

4.32. The requirements of TISCO are being met by the captive mines in Joda-Noamundi area. The estimates have not taken into account the requirements, if any, on expansion of the capacity of TISCO.

4.33. The requirement of IISCO are being met from its captive mines at Gua and Chiria supplemented by purchase of ore from market mines.

4.34. Regarding arrangements for transport of iron ore it has been stated that transportation of iron ore to the steel plants is based on the plan of linkage between the iron ore mines and the steel plants. (*vide* para 434).

4.35. The average cost of transport of iron ore, during 1974-75, from the major sources to the steel plants is stated to be as follows:

| Plant    | Source                  | R'y. freight<br>(Rs. per tonne) |
|----------|-------------------------|---------------------------------|
| Bhilai   | Dalli Rajhara . . . . . | 11.74                           |
| Durgapur | Bolani . . . . .        | 29.06                           |
|          | Noamandi . . . . .      | 24.20                           |
| Rourkela | Barsua . . . . .        | 11.70                           |
|          | Kalta . . . . .         | 11.20                           |
| Bokaro   | Kiriburu . . . . .      | 30.21                           |
|          | Bolani . . . . .        | 24.79                           |

4.36. Regarding the arrangements for transport of iron ore during Fifth and Sixth Plan period it was stated in a written reply that these would normally follow the already agreed pattern for the current year (1974-75) subject, of course, to such deviations as are discussed and agreed to with the Railways at the time of formulation of the annual plans. Changes in the movement pattern could emerge from various factors such as actual allocation of funds for the new schemes envisaged by SAIL in this regard, the availability of funds with the Railways to execute the works required for any additional movement, actual build up of production at the Steel Plants to which the assessed requirements relate, expert possibilities in respect of iron ore etc.

4.37. As regards the measures taken by SAIL to improve transport of iron ore to the steel plants it has been stated that the following measures had been taken:

- (i) finalisation of the linkage plan and movement programme jointly with the Railways, the steel plants and the producing mines at the commencement of each year, and constant watch on its implementation.
- (ii) Round the clock loading at Kiriburu on all the seven days of the week;
- (iii) Loading of lump ore from Kiriburu to Rourkela in BOBS wagons in order to facilitate unloading.
- (iv) expansion of siding facilities at Gua by IISS to facilitate loading of ore fines for Durgapur Steel Plant, and

- (v) Studies to optimise the utilisation of transport capacity, e.g. a detailed study on the alternative means of transport (other than rail) across the Bonai range, in order to inter-link the iron ore sources of Bolani/Barajamda with the Bursua and Kiriburu Sector.

4.38. The Committee note that SAIL has worked out the estimated requirements of iron ore during 5th and 6th plan periods for integrated steel plants and has linked each one of the steel plants with specific iron ore mines. They also note that the arrangements of transport of iron ore during the plan periods would normally follow the already agreed pattern for the year 1974-75 subject to such deviations as may be agreed to with the railways at the time of formulation of the annual plans. The Committee would like the SAIL to make sure that the iron ore mines linked with the respective steel plants are developed in time to produce the expected quantity of iron ore and meet the requirements of the steel plants in full. They would also like SAIL to maintain a close and continuous coordination with the railway authorities at the centre and in the field to ensure that there is no bottle-neck in the movement of iron ore from the various mines to the respective steel plants etc., and to review along with the railways from time to time the execution of the new schemes and works for the transport of additional quantities of iron ore to make sure that their completion synchronises with the additional production of iron ores in the existing mines and development of new mines.

#### *Iron Ore Board*

4.39. The Iron Ore Board was registered as a Society under the Societies Registration Act, 1960 on 20th January, 1973. The Memorandum of Association lists, *inter alia*, the following as the objectives of the Board:

- (i) To act as an advisory body in respect of planning and development of all aspects of development of iron ore deposits in the country;
- (ii) To prepare perspective plans for the development and conservation of iron ore resources and to promote economic utilisation of these resources inclusive of pelletisation of fines, blue dust and of lower grade iron ore;
- (iii) To plan for adequate supply of best quality of iron ore for the Indian Steel Industry and to advise on such steps as may be necessary to promote export of iron ore consistent with the resources and internal needs.

- (iv) To study balanced development of iron ore deposits in the country and to ensure coordination of infra structure facilities for iron ore production;
- (v) To study the requirements of research and development of iron ore sector as a whole;
- (vi) To promote equitable distribution of iron ore cargo for shipment from different parts in the interests of port economy and of employment.
- (vii) To discharge such other functions as may be assigned to it by the Central Government.

4.40. It took some time for the Board to obtain the services of technical staff required for its work. In fact, the full complement consisting of a Technical Adviser, a Geologist, a Metallurgist and an Economist became available only in March, 1974.

4.41. The Board, however, commenced work with the personnel available. Its first task was to prepare status reports on the basis of data available and those that could be collected readily on the quality and characteristics of the deposits, the methods of mining and the nature and utilisation of the ore. The status reports of the Barajamda area of Bihar and Orissa, Bellary-Hospet area of Karnataka and Goa prepared by the Board revealed considerable gaps in the knowledge of the deposits in these areas.

4.42. To rectify the above situation, the Board set up two committees—one Committee for the Barajamda region of Bihar and Orissa and the other for the Bellary-Hospet region of Karnataka—to study and suggest integrated development of iron ore deposits in these regions. The report of the Barajamda Committee, already submitted to the Board, recommended, *inter alia*, concrete production programmes for private sector mines, setting up of Central Crushing and Screening Plant, exploration of specified deposits, utilisation of accumulated fines and extension/provision of rail links for speedy movement of iron ore. The Board had already considered these recommendations and further action in this regard was being taken.

4.43. Studies were stated to be in progress in the Bellary-Hospet area, regarding the rationalisation of mining lease boundaries necessary for systematic mining, and for identifying the mine-wise production to meet the requirements during the Fifth Plan. The report of the Bellary-Hospet Committee is yet to be finalised shortly.

*Exploration:*

4.44. Exploration of the Chiria deposits which was the largest single deposit in the Bihar-Orissa area lying close to the Rourkela



Tatanagar railway line had been entrusted to the Mineral Exploration Corporation of India, as this deposit would play an important role, provided the grades and the nature of the ores were suitable, for supplying iron ore to the expansions envisaged at Bokaro and also would meet a part of the requirements of Rourkela.

4.45. On the recommendations of the Board, exploration of a number of selected iron ore deposits in the Bihar-Orissa region had been taken up by the G.S.I.

4.46. In the Goa area, after a survey of the present position, GSI had been requested to prepare a composite map of all the deposits with structural details with a view to predict the possibilities of extension of the ore-bodies in between the deposits. Also the GSI had been requested to take up experimental geo-physical surveys with a view to locate buried deposits in suitable areas under laterite cover and follow-up with experimental drilling.

4.47. The production from this area was very large compared to the reserves and the present programme if successful would augment the reserves in this region.

*Research:*

4.48. The study of the relative merits of utilising the various processed and agglomerated ores in the production of iron and steel with a view to utilising the large quantities of iron ore fines had been entrusted to MECON by the Steel Ministry on the recommendations of the Iron Ore Board. This study was expected to be completed shortly.

4.49. A Committee had also been set up to evaluate the various facilities available for testing of iron ores in the country and to make concrete recommendations for the creation or augmentation of facilities to match with the requirements of research and development programmes in the Fifth and Sixth Plan periods. The work of the Committee had progressed considerably and report was expected soon.

4.50. The Board had also proposed the levy of cess on the development of iron ore industry. This proposal is presently under examination in the Department of Steel.

4.51. The Committee note that the Iron Ore Board has been set up as a Society under the Societies Registration Act, 1960 on 20th January, 1973 to act as an advisory body in respect of planning and

development of all aspects of iron ore deposits in the country, to plan for adequate supply of best quality of iron ore for the steel industry and to promote export, to ensure coordination of infrastructure facilities for iron ore production and to promote equitable distribution of iron ore cargo for shipment from different ports etc. etc. The Committee also note that the Board has set up a number of committees to report on specific issues and initiated studies on various aspects of development and utilisation of iron ore deposits. The Board is also reported to have made a proposal for the levy of cess on the development of iron ore industry. The Committee however find that one of the functions of SAIL/Ministry is 'Development of input industries relating to iron ore etc. required mainly by the Steel Industry'. The Committee therefore recommend that Ministry/SAIL should clearly define the role of Iron Ore Board vis-a-vis that of SAIL so that there could be an effective coordination between the functioning of the Iron Ore Board and that of SAIL without any overlapping in functions and the various problems of the iron ore mines can be resolved in time and the Board can help in the development of mines, maximise production and streamline movement of iron ore for the better performance of the steel plants. The Committee would also like that Government should review the functioning of Iron Ore Board after some time to see how far the setting up of the Board has been useful not only to the functioning of NMDC but also in improving the performance of steel plants.

(ii) POWER

4.52. Steel Plants, in the recent past, had suffered loss of production in varying degrees on account of constraints in power availability. The constraints were either on account of power shortage/under frequency or because of shortage of coking coal, caused by heavy power cuts at collieries and washeries affecting their performance. The requirements of power at the various steel plants, existing in plant generating requirements and the balance requirements of power from Public Utilities, are as given below:

(Million KWH)

| Plant  | Year    | Inplant Generation |        | Receipts from Public Utilities |        |
|--------|---------|--------------------|--------|--------------------------------|--------|
|        |         | Requirement        | Actual | Requirement                    | Actual |
| 1)     | (2)     | (3)                | (4)    | (5)                            | (6)    |
| Bhilai | 1972-73 | (1)                | 166.1  | (1)                            | 530.8  |
|        | 1973-74 | (1)                | 166.1  | (1)                            | 525.8  |
|        | 1974-75 | (1)                | 174.9  | (1)                            | 532.4  |

| (1)             | (2)     | (3)       | (4)   | (5)      | (6)     |
|-----------------|---------|-----------|-------|----------|---------|
| <i>Durgapur</i> | 1972-73 | N.A.      | 60.7  | N.A.     | 228.1   |
|                 | 1973-74 | N.A.      | 77.9  | N.A.     | 204.0   |
|                 | 1974-75 | N.A.      | 74.5  | N.A.     | 228.3   |
| <i>Rourkela</i> | 1972-73 | 576.4     | 485.5 | 370.7    | 396.1   |
|                 | 1973-74 | 489.6     | 495.2 | 518.4    | 382.7   |
|                 | 1974-75 | 481.8     | 510.4 | 525.6    | 376.6   |
| <i>Bokaro</i>   | 1972-73 | (2) 235.7 | 235.7 | 26.2 (-) | 40.6(3) |
|                 | 1973-74 | 385.3     | 387.3 | 35.0 (-) | 0.8(3)  |
|                 | 1974-75 | 349.2     | 346.6 | 93.3     | 97.1    |
| <i>ASP</i>      | 1972-73 | —         | —     | 149.4    | 124.3   |
|                 | 1973-74 | —         | —     | 149.4    | 121.3   |
|                 | 1974-75 | —         | —     | 158.4    | 142.2   |
| <i>TISCO</i>    | 1972-73 | N.A.      | 411.7 | N.A.     | 608.9   |
|                 | 1973-74 | N.A.      | 386.5 | N.A.     | 553.8   |
|                 | 1974-75 | N.A.      | 473.8 | N.A.     | 547.5   |
| <i>IISCO</i>    | 1972-73 | 118.8     | 108.2 | 110.8    | 84.2    |
|                 | 1973-74 | 189.3     | 132.6 | 74.4     | 77.0    |
|                 | 1974-75 | 184.0     | 131.3 | 77.8     | 78.6    |

(1) The contract demand with MPEB is based on the firm inplant generation capacity of 24 MW and the total requirement of power by the plant which corresponds to production. The import of energy from the MPEB and the inplant generation are so controlled as to optimise the import of energy from MPEB with whom the contract demand is 85 MVA (74 MW).

(2) The first turbo-generator was synchronised in July, 1972.

(3) Net import from DVC—Import from DVC—Export to DVC.

4.53. Electrical loads of a steel plant can be classified into three categories:—

Category I: Essential loads, interruptions in power supply to which endangers plant, equipment and personnel.

Category II: Such loads interruption in power supply to which causes immediate and direct loss in production.

Category III: Such loads interruptions in power supply to which does not cause immediate loss in production but causes loss of production in the long run.

4.54. In all the steel plants category-I loads are invariably covered by inplant generation. Though to a varying extent category-II

loads are fed by inplant generation due to historical reasons, a major portion of category II loads and the category III loads are catered for by the public utility systems, viz., State Electricity Boards and DVC.

4.55 It has been stated that the production had suffered due to—

- (i) Restriction imposed in the off take of power.
- (ii) Low frequency of the public utility system affecting operation of mills with heavy peaking loads.

4.56. In a written note submitted to the Committee, it has been stated that for their requirements of power the Steel Plants are connected at present for the supply of power to different power plants as indicated below:

The Rourkela Steel Plant is connected for supply of power to the Orissa State Electricity Board. Bhilai Steel Plant receives power supply from the Madhya Pradesh Electricity Board. The Damodar Valley Corporation supplies power to all the other steel plants viz., Bokaro Steel Ltd., Durgapur Steel Plant, Alloy Steels Plant, TISCO and IISCO. While all the steel plants have firm agreements with their respectively connected Public Utilities, Bokaro Steel Ltd. has as yet no long term firm contract finalised with the DVC. The firm agreement for power supply between BSL and DVC is expected to be finalised very shortly. DVC has, however, taken all action to supply power to Bokaro.

4.57. One of the causes for the poor utilisation of capacity and lower fulfilment of target by the steel plants during 1973-74 was the constraint in the availability of 'power'. Towards the end of April, 1973, the power crisis hit the steel and coal industry very severely and this situation continued in varying degrees during a very substantial part of the year 1973-74, upto about November, 1973. Power shortage had not only affected the production at the Steel Plants directly but had also caused coal shortage resulting from poor production at the collieries and washeries due to power cuts, thereby further affecting production at the steel plants.

4.58. It has been stated that in association with the Ministry of Irrigation and Power, the Steel Authority tried to get topmost priority to the steel plants in matters of allocation of power by the Public Utility Services, despite low levels of overall generation. The position had in fact improved from about October, 1973 onwards,

but had remained so only for about a month or two, when the industrial relations situation with the railway staff started affecting coal supplies to the thermal power stations and power stations themselves also started having a spate of break-downs, one following the other. Generation by DVC was most affected and as such supply of power to Durgapur Steel Plant, TISCO, IISCO, the Alloy Steels Plant and the Coking Coal Collieries and the Washeries, got a set-back.

4.59. Apart from continuously liaising with the Ministry of Irrigation and Power, the DVC and the Orissa State Electricity Board, SAIL had brought up a proposal to the Committee of Ministers for Power for according, in principle, the approval for the setting up of captive power plants in the Steel Plants for supplying uninterrupted power.

4.60. According to SAIL during the year 1973-74, the country had lost a total of about 4.14 lakh tonnes of saleable steel attributable directly to power shortage and/or coal shortage resulting from power shortages in the collieries and mines.

4.61. The Committee during evidence, wanted to know as to how this figure of 4.14 lakh tonnes had been arrived at. The representative of the Department of Steel stated during evidence that:—

“The main constraint of power arose in the DVC system and OSEB system. The DVC system supplied power to Durgapur plant, to our coking coal mines and prime coking coal washeries. It also supplied power to IISCO, but it did not supply any power to Bhilai. We went into a very detailed exercise to determine how much we lost because of the power shortage in the saleable steel and ingots, how much was attributable to the washeries and mines on this account etc. etc.”

4.62. In a subsequent written reply, it was stated that meetings of Power Engineers of Steel Plants were arranged by the Steel Authority of India Ltd. at New Delhi on 27th and 28th July, 1973 to examine in depth the various problems connected with the electrical power supply to various Steel Plants. The Committee of Power Engineers had recommended (a) augmentation of inplant generation capacity of the Steel Plants in order to ensure uninterrupted operation and to avoid situations of unutilised Steel Capacity. The extent of augmentation of inplant generation capacity was anti-

puted to be of the following order. However, details of each scheme were to be assessed separately:

|   |        |
|---|--------|
| (i) TISCO   |        |
| (a) Balancing facilities in Power House No. 3 and 4 | 25 MW  |
| (b) Expansion                                       | 180 MW |
| (ii) D&P and ASP                                    | 120 MW |
| (iii) BSL   | 220 MW |
| (iv) RSP  | 120 MW |
|   | 665 MW |
| <b>TOTAL</b>  |        |

(b) The requirement of augmentation of inplant generation capacity at Bhilai and installation of inplant generating capacity at Visakhapatnam and Vijayanagar Steel Plants was to be assessed separately.

(c) Simultaneously with augmentation of inplant capacities stated above, the public utility systems catering to the requirements of various steel plants would have to be strengthened adequately so that they were able to meet the total load requirement.

4.63. SAIL had completed feasibility studies in respect of (a) Bokaro (b) Rourkela (c) Durgapur (d) Bhilai Steel Plant or elsewhere in Madhya Pradesh but specifically to meet the growing requirements of Bhilai and (e) Mysore Iron. These proposals were to be finalised in association with the Planning Commission and the Ministry of Irrigation and Power. It had been estimated that the earliest a power plant could be set up would be in 35 to 40 months, after all clearances.

4.64. Special steps had also been taken and positive results achieved in improving the generation of captive power plants, especially at Rourkela Steel Plant.

4.65. It has been stated that there was a possibility of cut back in power supply to Bhilai when the smelter unit at Korba was commissioned some time in August-September, 1974, as till the middle of 1976 no new generating capacity was likely to come up in Madhya Pradesh System. Possibilities, however, exist for interconnecting

Madhya Pradesh with the Bordering States, such as Maharashtra, who could spare some power. In the absence of firm power supply, the loss of production at Bhilai, consequent upon the commissioning of the aluminium smelter at Korba, might be of the order of about 0.75 million tonnes of saleable steel.

4.66. The representative of Deptt. of Steel stated during evidence that—

“It has been recognised that Bhilai's production has been maintained at fairly high level, and Bhilai has not suffered from want of power in terms of either quantity or quality and although there have been trippings, they were not so frequent as in other areas. With regard to expansion of Bhilai, provision of power as an input has been examined like other necessary inputs which are necessary for expansion. This together with other inputs has been examined. Instead of setting up a power plant somewhere nearby they have set it up elsewhere. Here comes the question of augmenting the capacity of power. This has been liaised with the Department of Energy and also Madhya Pradesh Electricity Board. So this matter is in hand.

With regard to Bhilai, the additional augmentation of power capacity is essential and it will be possible when our new plants come up.”

4.67. The representative of Ministry of Energy (Department of Power) stated during evidence that—

“Bhilai Steel Plant has not suffered on account of shortage of power. The supply to Bhilai Steel Plant is a committed load. With the commissioning of the Korba Aluminium Plant, there is no danger of reducing the supply to the steel plants. Additional arrangements have been made for meeting the power supply to Korba—BALCO PLANT.

As for meeting the future expansion, adequate generating capacity has been planned in Madhya Pradesh. Two units of 200 M.W. each have been sanctioned for benefit during Fifth Plan and they are now under installation presently at Satpura and Korba. It is totalling to 400 MW.

In Satpura the first unit is likely to be completed by 1978 while the second unit will be completed by the end of Fifth Plan. They are all thermal units. Presently there are three units of 120 M.W. each also under erection two at Amar Katak and one at Korba. Steps are being taken to ensure that the first unit of Satpura is commissioned in the year 1977-78 which, I presume, would meet the requirements of the expansion of Bhilai. Three units of 120

M.W. each are under construction one at Korba is likely to be commissioned by March 1976 which would help in meeting the demands of BALCO.

There are two units of 120 MW each which are also under erection at Amar Kantak. The first one is likely to be commissioned by the end of 1976 while the second plant is to be commissioned in 1977 July. So, sufficient capacity has been provided for in Madhya Pradesh to take care of the growing demands of steel and aluminium plus other industries.

4.68. With regard to the power requirement of Rourkela, the representative of Deptt. of Energy during evidence stated that—

“Rourkela is facing a cut down for the last few months in the matter of power. Due to poor monsoon there was a shortfall in inflows to reservoir. As a result, hydrogeneration from Hirakud and Machkund have practically become very small. The main generation is from Talchar. Four plants each capable of 62.5 MW capacity are installed. These three are in operation giving a generation of 150 MW which is not adequate. Therefore, last year, about August-September-October period the steel plant did suffer shortage of power. Now arrangements had been made by the Ministry of Energy to transfer more power from D.V.C. via Chandil-Jhoda Line and power to the extent of 50 MW has been given to Rourkela. Currently, 220 K.V. line is under process of being commissioned between Chandil and Jhoda which will stabilise the transfer of power from D.V.C. to Orissa. That is the position with regard to Rourkela.”

4.69. In regard to supply of power from Orissa State Electricity Board to Rourkela Steel Plant the representative of Department of Steel stated that—

“There is no doubt that Rourkela plant has suffered in the last 6-7 months due to power shortage. When we discussed this matter with our colleagues in the Ministry of Irrigation and Power, they were helpful and they did divert from DVC through the grid system additional capacity to enable Rourkela to take up more power. Even after that although the problem mitigated, it continued to remain particularly with regard to the number of trippings and the plant continued to suffer. We have been



discussing this. If the DVC had not diverted the power, the position would have been much worse."

4.70. Regarding power position in the Eastern Region the representative of Deptt. of Energy during evidence stated that—

"In respect of the eastern region primarily for Bengal, Bihar areas there is no doubt that in 1973-74 the situation was very bad. But, even before the generation picked up, the system of priority was introduced and, with the introduction of priorities, steel and coal were given the highest priority and the situation improved towards the end of 1973 and gradually it went on improving in 1974 and now, as you know, the generation in DVC has touched an all time height of 880 MW and one unit of 120 MW which was commissioned in March 1974 has stabilised and another unit of 120 MW is going to be commissioned in March this year in Chandrapura—DVC, with the commissioning of this fifth unit in Chandrapura by DVC we are confident that we will be able to meet the full requirements of Bokaro Steel.

The idea was to have a captive plant at Bokaro. But, we, in the Ministry of Energy, think that we should have a much bigger grid which will meet their demand in a better way. They have a fluctuating load. That plant will not be in a position to meet the load variation at all. With the wider grid and a much larger capacity of plant being installed, we can meet their demand better and with all the steps taken and with the progress of projects already in hand we are confident that we can commission the sets much earlier than what they can."

4.71. In reply to a question, the representative of Ministry of Energy (Deptt. of Power) admitted during evidence that the Bokaro captive plant could be linked with the grid to augment the power supply. He further added that—

"We have already taken into consideration the load demand while planning our generating capacities and our generation plants under the programme of DVC and in other areas already some plants have been allowed.

So far, power supply in the South region has been hydro based. Now there are proposals under consideration for Neyveli Lignite production. If that comes through that will give some relief to South."

4.72. In regard to the frequency of power supply the representative of Department of Power stated that—

“With the improvement in the generation from the DVC with the commissioning of new units in Santaldih (West Bengal) and commissioning of new lines, the entire grid has a larger capacity and it can sustain load variations coming from the steel plant. Frequency variation, we do not foresee of larger degree in the future unless there are outages of a major nature. This cannot be foreseen, but in a planned way we try to see that in the months to come, we should be able to give them the supply they need.”

4.73. In respect of applying power cuts of Steel Plants by the State Electricity Boards in case of power shortages, the representative of Deptt. of Steel stated that—

“Generally the steel plants are given a very high priority. Though they do not apply the power cut, but it is somewhat inherent in the system that you cannot get what you want. The system is a popped out system. The frequency goes down and tripping takes place. You may come up to a particular operation; beyond that the sub-station has not adequate control. We have gone over this in great length, that is in regard to erection and power, from Bihar Electricity Power Board, Orissa State Electricity Board and all that.”

4.74. In regard to power availability and the idea of setting up a captive power plants, the Secretary, Department of Steel stated during evidence that:

“We have also specifically evaluated the power requirements. Steel industry has been hit by the shortage of power. A coal washery was built last year. And we came to the conclusion at that time that we should perhaps consider the feasibility of setting up a captive power plant. The concept was not to set up this, based on the total requirements of the steel plants. In the Fifth Plan depending upon the generating capacity, captive power plant will be provided in the shape of additional captive power production. We had a rather unhappy experience in the matter of power production. In 1973-74, in some areas, there was a poor rainfall. In this country we have a fairly large amount of hydroelectric power. Of course, in the matter of DVC, fortunately it has been producing very much

now. Therefore we came to the idea of having a captive power plant. We also discussed this question in the Ministry with regard to Bokaro. The view that prevailed was that we should not perhaps have one just now.

As matters stand today, the Department of Energy was confident enough in the matter of power generation. Considering the total power availability in the country, it will be possible to meet the requirements of power at Bokaro.

4.75. In respect of the progress made in the setting up of Captive Power Plants in the country to augment the power supply to the Steel Plants, the representative of Department of Steel further stated that:—

“Because of our very unhappy experience of the loss of production in 1973-74 to the extent of 4.14 lakhs tonnes was born the strong concept that we should increase the captive plant capacity in the steel plants. We must safeguard against such a big loss of production which in terms of money value and industrial production is extraordinary. Thereafter having come to this view, we engaged ourselves in building up what the requirements should be, in consultation with other agencies of the Government particularly the power people. Fortunately, this year DVC system has improved. They felt that the supply of captive power plants to the steel plants would not be a wise additional investment.”

4.76. The Committee pointed out that the decision to have captive power plant at Durgapur was taken in March, 1974 and asked if proposals in this regard had been sent to Government. The representative of Department of Steel replied in the negative and stated that:

“...after discussion it was decided that the matter may not be pressed. With regard to other matters we will go to Government soon. The whole details have to be worked out. The study which generally takes six to eight months, is almost complete in this case and it will now be sent to the Government very soon.”

4.77. The power requirement of each of the steel plants during 1975-76 and the coming years of the Fifth Plan, and how it is met is indicated in the enclosed table. The Steel Plants which have captive generation meet some of their power requirements, particularly of the Category I loads from their captive capacity. The amount of power met by captive capacity has also been indicated.

4.7a. Power requirements of the Steel plants during the Fifth Plan and how this is to be met by Import from utility and captive generation in the plants is given below :

MW—Megawatt  
(mu)—Mullion Kilo watt hours.

|                                    | 1975—76   | 1976—77    | 1977—78    | 1978—79    |
|------------------------------------|-----------|------------|------------|------------|
| <b>1. Rourkela</b>                 |           |            |            |            |
| (a) Total Demand MW/(mu) . . . . . | 188 (970) | 188 (1020) | 220 (1120) | 225 (1185) |
| (b) Captive Generation . . . . .   | 100 (550) | 100 (600)  | 100 (600)  | 225 (600)  |
| (c) Import from Utility . . . . .  | 80 (420)  | 88 (420)   | 120 (520)  | 125 (425)  |
| <b>2. Bhilai</b>                   |           |            |            |            |
| (a) Total Demand MW/(mu) . . . . . | 108 (760) | 118 (828)  | 172 (1037) | 239 (1506) |
| (b) Captive Generation . . . . .   | 24 (170)  | 24 (170)   | 24 (170)   | 24 (170)   |
| (c) Import from Utility . . . . .  | 84 (590)  | 94 (658)   | 148 (1207) | 215 (1676) |
| <b>3. Bokaro</b>                   |           |            |            |            |
| (a) Total Demand MW/(mu) . . . . . | 197 (936) | 225 (1234) | 261 (1383) | 297 (1593) |
| (b) Captive Generation . . . . .   | 67 (410)  | 67 (410)   | 67 (410)   | 67 (410)   |
| (c) Import from Utility . . . . .  | 130 (526) | 158 (824)  | 194 (973)  | 230 (1183) |
| <b>4. Durgapur Steel Plant</b>     |           |            |            |            |
| (a) Total Demand MW/(mu) . . . . . | 60 (395)  | 65 (430)   | 70 (465)   | 75 (500)   |
| (b) Captive Generation . . . . .   | 15 (80)   | 15 (80)    | 15 (80)    | 15 (80)    |
| (c) Import from Utility . . . . .  | 45 (315)  | 50 (350)   | 55 (385)   | 60 (420)   |
| <b>5. Alloy Steel Plant</b>        |           |            |            |            |
| (a) Total Demand MW/(mu) . . . . . | 50 (175)  | 70 (200)   | 70 (250)   | 70 (300)   |
| (b) Captive Generation . . . . .   | NIL       | NIL        | NIL        | NIL        |
| (c) Import from Utility . . . . .  | 50 (175)  | 70 (200)   | 70 (250)   | 70 (300)   |

## 6. TISCO

|                                    |            |            |            |            |            |
|------------------------------------|------------|------------|------------|------------|------------|
| (a) Total Demand MW/(mu) . . . . . | 174 (1105) | 174 (1105) | 174 (1105) | 181 (1150) | 188 (1195) |
| (b) Captive Generation . . . . .   | 63 (360)   | 62 (360)   | 62 (360)   | 62 (360)   | 62 (360)   |
| (c) Import from Utility . . . . .  | 112 (745)  | 112 (745)  | 112 (745)  | 112 (790)  | 126 (836)  |

## 7. IISCO

|                                      |           |          |          |          |
|--------------------------------------|-----------|----------|----------|----------|
| (a) Total Demand (MW) (mu) . . . . . | 52 (212)  | 57 (245) | 60 (260) | 62 (265) |
| (b) Captive Generation . . . . .     | 25 (1001) | 30 (120) | 33 (133) | 35 (140) |
| (c) Import from Utility . . . . .    | 27 (112)  | 27 (125) | 27 (125) | 27 (125) |

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1216 MW

4.79. Subsequently, the Department of steel in a note furnished after evidence stated that:

During the conference of the Chief Executives held on March 20-22, 1974, the erstwhile CWPC, now CEA under Department of Power, projected that from middle of April, 1974 onwards the DVC system would be generating around 650 MW, and with this the steel plants in the DVC region would have uninterrupted supply of Power.

4.80. However, the supply of power from DVC till mid-August, 1974 had not been satisfactory. The position of power supply from the DVC system had improved from September, 1974. From early December, 1974, DVC had withdrawn restrictions in the off-take of power from its system by the steel plants. With the commissioning of the various units of Bokaro Steel Plant, its power requirement for 1975-76 quarter-wise would be as follows:—

|               |                |
|---------------|----------------|
| Ist quarter : | 54 MW/60 MVA   |
| 2nd quarter : | 54 MW/60 MVA   |
| 3rd quarter : | 81 MW/90 MVA   |
| 4th quarter : | 130 MW/144 MVA |

CEA has confirmed that the power requirements of the steel plants would be met by the DVC.

4.81. In a meeting held between SAIL, Rourkela Steel Plant, Planning Commission, Orissa State Electricity Board and the erstwhile CWPC, now CEA, OSEB had expressed confidence in its capability to meet the present and future additional demands of power of Rourkela Steel Plant which would come up during the Fifth Plan, period. However, generation in OSEB system had been considerably low from September, 1974 onwards, particularly due to low hydel generation. Restriction was imposed in off-take of power, and limited to 40 MW instead of RSP's 72 MW of contracted demand. However, OSEB imported power from the DVC system for Rourkela Steel Plant and this provided some relief, but increase in the number of power failures and interruptions caused production losses and damages to equipment.

With the energisation of Balimela Talcher link, OSEB was now bringing in power from Balimela and restrictions on off-take of power had been lifted. But the interruptions and failures in the power supply were still continuing and causing a lot of concern to the steel plant. The most reliable supply for Rourkela Steel Plant was from the Hirakud generating stations, which were reported to be having low generation due to low water condition.

4.82. Projection had been made by the CEA of the Department of Power to meet the requirements of steel plants during the Fifth Plan period, in its Report of the Ninth Annual Power Survey. This Report has been received by SAIL on 5-3-1975. The projections were generally in line with the forecasts of requirements of the Steel Plants. But the 'Power Supply position during the Fifth Five-Year Plan', a document prepared by CWPC in May, 1974 was now under revision and was expected to be available shortly; when this document became available, it would be possible to assess the power supply situation to steel plants and formulate the views of SAIL thereon.

4.83. The Committee note that for power, Rourkela Steel Plant is dependent on Orissa State Electricity Board, the Bhilai Steel Plant on Madhya Pradesh Electricity Board and the other steel plants, namely, Bokaro, Durgapur, Alloy Steels Plant, TISCO and IISCO are connected with Damodar Valley Corporation and all the steel plants except Bokaro have firm agreements with the concerned public utilities. The Committee also note that the firm agreement for supply of power between Bokaro Steel Plant and the DVC would be finalised shortly. The Committee recommend that for an assured supply of power from the DVC, the Bokaro Steel Plant should without further delay finalise its requirements of power and enter into firm agreements with DVC.

4.84. The Committee regret to note that during the year 1973-74, the country lost a total of about 4.14 lakh tonnes of saleable steel attributable directly to power shortage and/or coal shortage resulting from power shortages in the collieries and mines. The Committee were informed that according to the recommendations of the Committee of Power Engineers of SAIL in July, 1973, the in-plant generating capacity of steel plants should be augmented in order to ensure uninterrupted operation and to avoid situations of unutilised steel capacity. The extent of augmentation was worked out as 665 m.w. except in regard to Bhilai and the Visakhapatnam and Vijaynagar Steel Plants which are yet to be assessed. With the augmentation of the in-plant capacity, the public utility systems catering to the requirements of the various steel plants would also have to be strengthened adequately so that they were able to meet total load requirement. It has been stated that the SAIL completed feasibility studies in respect of Bokaro, Rourkela, Durgapur, Bhilai, and special steps have also been taken in improving the generation of captive power plants. The Committee were also informed that two units of 200 m.w. have been sanctioned for installation at Satpura and Korba power houses of the Madhya Pradesh Electricity

Board to augment the power supply to Bhilai and it was expected that the first unit of Satpura would be commissioned in 1977-78. In addition, two units of 120 m.w. are also under erection at Amar Kantak which are likely to be commissioned, one by the end of 1976 and the other by the middle of 1977. According to Department of Power sufficient capacity has thus been provided for in Madhya Pradesh to take care of the growing demands of power for increased production of steel in Bhilai and aluminium in Korba.

4.85. In so far as Rourkela is concerned, the Committee were informed that the steel plant did suffer due to shortage of power from Hirakud and Machkund. However, with the help of the Ministry of Irrigation and Power, power was diverted from DVC through the grid system to enable Rourkela to take up more power. It has been stated that in respect of the eastern region primarily for Bengal and Bihar areas, in 1973-74 the situation was very bad but priorities were given to steel and coal which enabled steady supply of power from the DVC after the generation in DVC improved in March, 1974. According to Department of Power with the commissioning of the 5th unit in Chandrapura by DVC, the full requirements of Bokaro Steel would also be met. The Committee were also informed that although SAIL had proposed installation of new captive power plants, the Department of Energy felt that the supply of captive power plants to steel plants would not be a wise additional investment in view of improvements in DVC. The Committee however find that power requirements by 1978-79 would be of the order of 1,216 m.w. out of which captive generation alone would be 303 m.w. The Committee however understand that recently, the Steel Ministry has revived its proposal for setting up additional power generating capacities at the steel plants and the additional generating capacities would be of the order of 550 m.w. of value Rs. 210 crores.

4.86. The Committee would like to be informed of the developments about the installation of captive power plants. The Committee recommend that coordinated and concerted efforts should be made by Government/SAIL to arrange for a regular and uninterrupted supply of power of required frequency for steel plants as well as to the coal mines and iron ore mines so that there is no loss of production on account of short supply of power or non-supply of power and the steel plants are run to optimum capacity. As it has been stated that setting up of a power plant takes nearly about 35 to 40 months, the Committee would like Government/SAIL to draw up a meaningful plan sufficiently in advance for power generation in a coordinated manner so that the requirements of power for the



expanding steel industry not only in the 5th Plan but also in the 6th Plan period are realistically assessed and action taken to ensure that the power plants are installed in time and the requisite power is made available to the steel plants.

### (iii) REFRACTORIES

4.87. The requirements of refractories for each of the Steel Plants during the preceding 3 years, i.e. 1972-73, 1973-74, 1974-75, are as given below:—

#### *Requirements of Refractories*

| Plant                          | 1972-73  | 1973-74  | 1974-75  |
|--------------------------------|----------|----------|----------|
|                                | (Tonnes) |          |          |
| Bhillai Steel Plant . . . . .  | 1,39,000 | 1,37,000 | 1,36,000 |
| Durgapur Steel Plant . . . . . | 39,834   | 46,036   | 47,511   |
| Rourkela Steel Plant . . . . . | 51,169   | 42,776   | 46,975   |
| Alloy Steel Plant . . . . .    | 4,817    | 5,584    | 6,764    |
| Bokaro Steel Plant             | 33,531   | 49,053   | 31,905   |
|                                | 2,68,351 | 2,80,449 | 2,69,155 |

#### *Sources of Supply*

4.88. It has been stated that there are three suppliers for basic bricks, out of which two are major suppliers. In the case of silica bricks, there are 5 suppliers, out of which three are major ones. For fireclay bricks, there are a number of suppliers, but quality products are manufactured primarily by 45 firms. The sources of supply for each of the Steel Plants are given in Appendix IV.

#### *Shortages*

4.89. There is a shortage of quality refractories in types, such as, fireclay, silica and basic. Besides, there are other types which are not made in the country namely, carbon graphite, certain types of high alumina, corundum, carborundum, electrocast refractories and some speciality materials.

*Varieties which are imported*

4.90. Imports are resorted to where there is a shortage in the indigenous availability due to various constraints, such as transport difficulties in the movement of raw materials and inputs like furnace oil, electric power, coal etc; or due to inferior quality of indigenous supply due to limitations in the quality of indigenous raw materials, or where there is no indigenous production in specific items of special and complicated shapes and sizes whose requirements may not be large enough for economical commercial production; or the technical know-how is not available at present for commercial production. The imports are mainly in carbon, graphite, certain types of high alumina, corundum, carborundum, electrocast, ramming and gunning masses, magnesite & chrome magnesite, silica shapes and spraying compounds for coke ovens, dead burnt magnesite, pouring refractories, heat insulation bricks and shapes etc. Value imports during the last three years is as indicated below:—

|     | (Rs. in lakhs) |         |         |
|-----|----------------|---------|---------|
|     | 1972-73        | 1973-74 | 1974-75 |
| BSP | 34.9           | 58.1    | 431.7   |
| DSP | 3.0            | —       | —       |
| RSP | 211.5          | 84.4    | 27.4    |
| A&P | 7.9            | 8.8     | 13.2    |
| BSL | 140.0          | 150.0   | 125.0   |
|     | 397.3          | 301.3   | 597.3   |

4.91. It has been stated that SAIL has taken the following measures so far to make good the shortage:—

(a) Constraints in production of refractories, such as, shortage of fuel oil, movement of raw material and finished products and power cut to the refractory plants were taken up with the concerned Government Departments. As a result the constraints were removed to the extent possible, depending upon the situation.

(b) Dialogues were held with the manufacturers to augment supply.

(c) Discussions as held with the DGTD for expediting and clearance from indigenous angle for imports. Release of foreign exchange was also expedited.

(d) The Government have taken over Asian Refractories (now known as Bharat Refractories Ltd.) and Assam Silimanite Ltd. These units were licenced for 24,000 tonnes and 46,000 tonnes respectively but their maximum production was only 14,581 tonnes and 6,018 tonnes respectively. There is a proposal to revive India Fire-Bricks & Insulation Company who were licenced for 72,000 tonnes but whose maximum production was 23,345 tonnes only and is presently under lock-out. Efforts are being made to step up the production of these units which is expected to result in achievement of greater capacity utilisation.

(e) It has been decided to put up a Refractory plant at Bhilai having a capacity of 1,37,000 tonnes per annum to manufacture high quality refractories in fireclay, high alumina, silica and basic types. The DPR has been completed and the Project is under implementation.

(f) Additional capacity of about 604,000 tonnes of various refractories has also been sanctioned through several letters of intent/industrial licences issued by the Ministry of Industrial Development and the schemes are at various stages of implementation. Based on a targetted production of steel for 15.8 million tonnes in 1978-79 and 20 million tonnes in 1983-84, and catering for other industries also, surpluses are expected in 1978-79. Provided all the schemes are implemented which is unlikely whereas deficits are anticipated in 1983-84 (787,000 tonnes). The actual position however needs constant watching of the progresses made by the Refractory Units in the implementation of the capacities sanctioned and the revised targets of steel production in the future years so that remedial action as required may be taken at the appropriate time.

(g) Work on the rationalisation of sizes and shapes to the extent possible has been taken up so that it may be possible to take up indigenous production of some of the items.

(h) Some of the progressive refractory manufacturing units are being encouraged to improve the quality of the refractories and also develop new varieties like bloating type refractories, carbon refractories, high alumina cement spraying compounds tar bonded/tar impregnated magnesite refractories, semi silica bricks etc., for which research work has been done by the National Metallurgical Laboratory and the Central Glass & Ceramic Research Institute.

(i) It may however be mentioned that imports to some extent will still be unavoidable in special and complicated shapes or in special qualities whose commercial production may not be economical or whose production may take some time in view of the technology involved. To be realistic, it must also be recognised that the steel technology is fast changing with more emphasis on faster rates of production to more economical and more stringent specifications. The refractory industry would have to meet the demand to more stringent stipulations, and there is bound to be some time lag in the refractory units achieving this.

4.92. As regards steps taken to ensure adequate and constant supply of refractories to Steel Plants, the Deputy Minister stated in Lok Sabha on 22-8-1974 in reply to unstarred Question No. 3278 that part from the proposed refractory plant at Bhilai, the State Industrial Development Corporations of Tamil Nadu, Karnataka and Andhra Pradesh had been granted letters of Intent to put up refractory plants in the vicinity of the three new steel plants being set up in South India. Government took over the Asian Refractories Plant in 1972 and it is functioning as a subsidiary of the Bokaro Steel Plant under the name of Bharat Refractories. Government had also taken over the management of the refractories plant of M/s. Assam. Silimanite Ltd. Judicial imports were also allowed to make good shortages in specific categories. All these steps were expected to ensure regular and adequate availability of refractories to the steel plants.

4.93. Subsequently in a written reply, the Deptt. of Steel stated that letters of Intent had been issued to various State Industrial Development Corporations as indicated below:—

| Name of the State Industrial Corporation                                 | Date of issue of letters of intent              | Date by which acceptance & proposals were to be sent | Extended period for sending acceptance  |
|--|---|--|---|
| 1. Andhra Pradesh Industrial Development Corporation.                    | 20-8-73   | One year from the date of issue of the letter.       | 19-8-75   |
| 2. Karnataka State Industrial & Development Corporation Ltd., Bangalore. | 6-10-71   | Do.  | 30-9-75   |
| 3. Tamil Nadu Industrial Development Corporation Ltd., Madras.           | 28-10-72<br>(Amended letter issued on 15-12-73) | Do.  | Extension of date beyond 31-3-75 is under consideration of Government of India. |

### *Proposed Refractory Plant at Bhilai*

4.94. The need for establishing a refractory plant in the Public Sector on priority basis at Bhilai had been agreed to by the Government and a Detailed Project Report therefor as approved by the SAIL Ad-hoc Committee and SAIL Board was awaiting approval of the Government. The proposal was considered by the Public Investment Board on 24th December, 1974 and again on 7th June, 1975 when the matter was referred to the Planning Commission. The Public Investment Board considered the Project in its last meeting held on 5th July, 1975 and finally approved the Project.

4.95. The Refractory Plant at Bhilai was expected to produce 11,000 tonnes per annum of quality refractories at 80 per cent capacity utilisation comprising of:—

|   |               |
|---|---------------|
| High grog-fireclay including high alumina | 60,000 tonnes |
| Silica                                    | 20,000 tonnes |
| Basic                                     | 30,000 tonnes |

4.96. The salient features of the product-mix were stated to be as under:

- (i) High grog fireclay and high alumina type bricks and shapes which are in short supply and are a necessity to sustain high standard of steel making practice as well as development in steel technology will be manufactured.
- (ii) The product mix does not envisage the common varieties of fireclay bricks which Bhilai will continue to procure from open market.
- (iii) Certain qualities of high alumina bricks used in blast furnace will be manufactured for the first time in the country.
- (iv) Burnt quality basic bricks and shapes including open hearth of quality which are in short supply.
- (v) Out of the capacity for silica bricks, about two-thirds will be for coke oven quality which are in short supply.

4.97. The project would be set up at an investment of Rs. 28.4 crores including the foreign exchange requirement of Rs. 2.8 crores.

Definite sources for the raw materials, power and water required for the project had been established. It has been stated that the Project would require 39 months for completion.

4.98. The estimated saving in foreign exchange had been worked out to approximately Rs. 13.8 crores per year at 1973 price level. In fact, the saving in foreign exchange would be much higher if the likely price level had been taken into consideration.

#### *Taking over Asian Refractories (Bharat Refractory)*

4.99. In a detailed note submitted by the Department of Steel, the Committee were informed that Bokaro Steel Limited had in the past serious difficulties in obtaining supplies of refractories for construction of the Plant from indigenous suppliers. The progress of construction had been affected on account of failure of the indigenous manufacturers to make supplies of refractories in time and in accordance with the prescribed specifications. Not only has the Project been delayed as a result of this, but large quantities of refractories had to be imported at short notice to meet urgent requirements. Initially, only about 4,000 tonnes of refractories which were not manufactured indigenously, had to be imported for the first stage of the Plant, but due to the failure of indigenous manufacturers, the total import of refractories now stands at about 81,250 tonnes. Substantial quantities of refractories would also be needed by Bokaro for operation as well as for expansion to the second stage. It was therefore, considered essential that Bokaro Steel Limited should operate a captive refractory plant to meet atleast a part of its critical and essential requirements.

4.100. After detailed consideration of various alternatives, it was decided to acquire the Asian Refractory plant at Bhandaridah, which is close to Bokaro and which was then under Liquidation. Government of India acquired the plant by an Ordinance issued on 17th October, 1971, and a notification was issued on 23rd October, 1971, nominating Bokaro Steel Ltd. to manage this unit on behalf of the Government. Subsequently, the Asian Refractories Ltd. (Acquisition of Undertaking) Act, 1971, took retrospective effect from 17th October, 1971 Under the Act, the Government had to pay Rs. 81 lakhs in instalments as compensation. The Plant was handed over to Bokaro Steel Limited by the Official Liquidator appointed by the Calcutta High Court on February 19, 1972. Though licensed capacity of the plant is 24,000 tonnes of firebricks and 6,000 tonnes of silica bricks. However, there were neither facilities for the manufacture of silica

bricks nor there were any plans to manufacture the same. As BSL's requirements for silica bricks are limited, the licence for silica bricks had been surrendered.

4.101. A Committee which examined this plant before acquisition was of the opinion that the facilities in the plant were out of balance and additional balancing equipment and facilities were necessary to achieve the licenced capacity. It was, therefore, decided to prepare a Detailed Project Report. Accordingly, MECON were entrusted with the preparation of DPR, which had been submitted by them to BSL/SAIL. The DPR envisage the expansion of the plant in two stages—Stages I to achieve a total production of 24,000 tonnes of fire bricks and Stage II—expansion of the plant to its optimum capacity of 50,000 tonnes. Capital, investment (Including township) envisaged is Rs. 34.3 million in stage I and Rs. 80.5 million in stage II. At 90 per cent utilisation, the plant is expected to incur a loss of Rs. 1.879 million in stage I and a profit of Rs. 2.993 million in stage II. The DPR had been examined in detail and the Board of Directors of BSL decided to further explore the possibilities of reduction in the capital investment and to improve the profitability of the plant.

4.102. The question whether the ownership of this plant should be transferred by the government to the Bokaro Steel Ltd. to be run as a unit of the said company or whether a separate company should be formed as a subsidiary of Bokaro Steel Ltd. or SAIL, was considered in detail. The Board of Directors of Bokaro Steel Ltd. decided in favour of formation of a subsidiary company under the name Bharat Refractories Limited. It was stated that this decision was taken under the following considerations:—

- (i) Separate wage structure, provident fund, bonus and other benefits for the labour and staff engaged in the refractory plant could be maintained. This would strengthen the competitiveness of the products of the refractory plant in the market.
- (ii) Better attention from the management would be received by the refractory plant as a separate company than as a small unit of the integrated steel plant.
- (iii) This company might also expand its refractory manufacturing activities by setting up and/or taking over more refractory manufacturing units. Refractories being very important stores material for steel production, one or more

companies of this nature in the public sector are necessary for smooth and regular supply there of to the steel industry.

4.103. This decision of BSL Board was approved by the Board of Directors of Steel Authority of India Limited in their meeting held on 29th January, 1974, and Government accorded its approval to the incorporation of a new company by the name of 'Bharat Refractories Limited' as a subsidiary of BSL to take over the ownership and management of this plant.

4.104. The Bharat Refractories Limited was then incorporated on 22nd July, 1974 with an authorised capital of Rs. 2 crores and with its registered office at Bokaro. This is new a wholly owned subsidiary of Bokaro Steel Limited. A deed transferring the Refractories Plant from the Central Government to Bharat Refractories Limited as a nominee of SAIL has been entered into between the President of India, Steel Authority of India Limited, Bokaro Steel Limited and Bharat Refractories Limited on 11th April, 1975.

4.105. At the time of acquisition, the equipment in the plant was in a state of disrepair. Essential repair/renovation works were immediately undertaken by BSL and one of the two round kilns was lighted in May, 1972. The tunnel kiln was commissioned after essential repairs in August, 1972 and regular production commenced in October of that year.

4.106. The quantity of saleable refractories produced in this plant since its take-over is given below:

| Year                    | Refractory Bricks<br>(in tonnes) | Mortar<br>(In tonnes) |
|-------------------------|----------------------------------|-----------------------|
| 1972-73 (From May, '72) | 6,226                            | 897                   |
| 1973-74                 | 13,466                           | 3,084                 |
| 1974-75                 | 12,010                           | 4,797                 |

4.107. The low production in 1974-75 was attributed to a strike from 16th December, 1974 to 7th January, 1975 by the workers. The plant had been supplying refractories mainly to Bokaro Steel Limited and Durgapur Steel Plant.

4.108. In a written reply SAIL stated that the main difficulties in achieving higher rates of production and the action taken to overcome



the difficulties were as under:—

- (i) The technical experts who had examined the plant before and after its acquisition had expressed the view that there was an imbalance between the firing capacity and the mixing and pressing capacity, the latter being less, and that unless additional equipment and balancing facilities were provided, the plant would not be able to reach its licenced capacity. MECON were commissioned to prepare a project report in this regard. The report, recently submitted was being examined by Bharat Refractories Limited.
- (ii) All efforts were being made by the Plant Management to obtain the requirement of spares from indigenous sources. The workshop which hardly contained any equipment at the time of acquisition was being developed. Equipment like surface grinders, drilling machines, lathes, etc. had been procured and installed and arrangements were also being made to instal a crane. It was expected that soon, the plant would be able to manufacture many of the spare parts of which it had hitherto been depending on outside agencies.
- (iii) The main power supply was from the grid of Bihar State Electricity Board. The supply had been irregular with frequent break-downs. There was also considerable fluctuation in voltage as the plant was at the end of the feeder line with a number of collieries in between. The Electricity Board had now given a direct connection to the plant from the nearest sub-station at Jainamore. Two diesel generation sets of 205 KVA each had also been obtained and were under erection.
- (iv) The plant was located on the branch railway line between Gomoh and Barkakana of the Eastern Railway and Bhandaridah station itself had no siding facilities. The question of providing a siding had been taken up with the Railway authorities.
- (v) There was no regular road to link Bhandaridah with Phusro/Bermo in the west or Chandrapura in the East. This had proved to be a serious impediment for the smooth flow of raw materials from the mines. The question of constructing a motorable road between these points or building a causeway across the river Damodar to con-

nect with the roads on the other side, had been taken up with the State Government.

4.109. The Plant had incurred losses during 1972-73 and 1973-74. The cumulative loss upto 31-3-75 was Rs. 24.64 lakhs. The loss had been primarily due to low production on account of the lack of balancing facilities and higher wages on account of revised wage structure. With the provision of additional equipment and consequent increase in production of more sophisticated types of refractories, the plant was expected to make profits.

#### **Taking over of Refractories plant of Assam Sillimanite Limited**

4.110. The Committee were also informed that the management of the Refractory Plant of M/s. Assam Sillimanite Limited was taken over by Government for a period of 3 years by a Notification dated 2-11-72 issued under 18-AA of the Industries (Development and Regulation) Act.

4.111. M/s. Assam Sillimanite Limited had been granted a licence on 20th January, 1960, under the Industries (Development and Regulation) Act, 1951, for a total production capacity of 44,720 tonnes of refractories per annum, subsequently amended to 46,000 tonnes. According to the licence, the plant was to be set up in two stages. In the first stage, the production envisaged was 29,000 tonnes and, in the second stage, an additional 17,000 tonnes to make up the total of 46,000 tonnes.

4.112. For the setting up of the plant and technical know-how, the Company had a Collaboration agreement with a West German Company, M/s. V.G.T. The Plant and machinery were also imported from West Germany. However, the project never proceeded beyond the first stage. Even the first stage was not fully completed when the work stopped due to financial and other difficulties faced by the Company. The construction of the second stage of the plant had not been taken up at all. The Company had, however, started a pilot refractory plant in the initial stages.

4.113. At one stage, Bokaro Steel Limited were interested in acquiring a captive refractory unit of their own to meet the requirement of refractories for the Bokaro Steel Plant. Technical Committees appointed by Bokaro had confirmed that the condition of the plant and equipment of the Refractory Plant of Assam Sillimanite Ltd, was good and had expressed the opinion that it would be worthwhile to acquire this unit, subject to satisfactory negotiations in

regard to price etc. Bokaro Steel Plant, however, ultimately acquired the Asian Refractories Ltd in October, 1971. One of the difficulties that Bokaro had experienced during the discussions on acquiring the Refractory Plant of Assam Sillimanite Ltd. was the absence of correct and reliable information about its assets and liabilities and its financial position.

4.114. In 1972, Hindustan Steel Limited considered the question of taking over this unit in the context of the general shortage of refractories in the country, necessitating large-scale imports during the preceding 2-3 years. Their inquiries, however, revealed that the financial position of the Company was not satisfactory. It owed large sums of money to a number of creditors, including Punjab National Bank, Governments of Bihar and Meghalaya, Assam Financial Corporation etc. In fact, the entire assets of the Company were mortgaged and hypothecated to the Punjab National Bank and some of the machinery was under the first charge of the Bihar Government. The company had not published any balance sheet and profit and loss account after 31st March, 1968. The Plant was, however, closed down by the Company on 28-6-72, throwing more than 200 workers out of employment.

4.115. Government felt that it would not be in the national interest to allow the Plant to remain closed. The position of availability of refractories, particularly for the steel industry, was not satisfactory. The owners of the plant had neglected it and had not completed even its erection, although the licence had been given as early as 1960. Valuable imported equipment had been lying unutilised for a number of years. The plant was capable of manufacturing a refractories of a specialised nature required for the steel industry, which were being imported. There was little prospect of the plant being restricted by the Company and it was obvious that the present management would not be in a position to mobilise the substantial extra investment required to put the equipment to good use or to get the best out of this equipment in national interest. Government, therefore, decided to take over the management of the plant for a period of three years under section 18-AA of the Industries (Development & Regulation) Act, 1951, with effect from 2nd November, 1972. The management has been entrusted to Hindustan Steel Limited.

4.116. After the take over of the management of the refractory plant, a number of measures have been taken by Hindustan Steel Limited to bring the plant in a workable condition, restart production and to utilise the available equipments and machineries to the

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best advantage. The plant was commissioned in April, 1973, but actual production started from July, 1973, on account of certain difficulties arising out of a stay obtained by the Company and disconnection of electric supply etc. During the period July, 1973 to March, 1974, 3,570 tonnes of refractories and other materials valued at Rs. 11.54 lakhs were produced. The production in 1974-75 was 6118 tonnes valued at Rs. 43.49 lakhs. This is against the average production of about 1,325 tonnes per annum prior to the closure of the plant in June, 1972.

4.117. During evidence the representative of Department of Steel informed the Committee that—

“About 65 to 70 per cent of the total production of refractories in the country is taken by the steel industry. But the supply to steel plants is primarily from four or five main refractories plants. There has been shortage in some of the main varieties needed namely basic bricks and dead burnt magnesite and some special types of refractories etc. The difficulty in regard to basic bricks and dead burnt magnesite is due to the power cut in Tamil Nadu where the bulk of magnesite is mined. There was a problem of furnace oil availability. But arrangements have been made to see that the refractory plants get furnace oil. Taking all these into account and on the basis of our planned requirements, certain proposals have been made for increasing refractory making in the country.....”

4.118. The Secretary of Department of Steel added that this was one of the very important inputs and certain areas were facing difficulty in its procurement. By setting up a plant at Bhilai, the problem of import of special varieties of refractories would be solved to a large extent.

The witness added that—

“There is fairly large installed capacity especially in the private sector. But with that capacity, small and medium sized units were not able to generate the required type of production. Sometimes the constraints are genuine in the form of power cuts. It is also our view that sometimes to extract higher prices our capacity is baffled. Therefore, we think that we should not entirely be at the beck and call of such a situation. While we do not think that the private sector should not be there, they have a role to

play, nevertheless the emergence of an important sector for the production of refractories in the public sector would to an important extent ensure the control of both the supply and the price. . . . There is no foreign collaboration in this plant. (Bhilai Refractory Plant). Some equipment may be bought from the Soviet Union and Europe."

4.119. Asked if the Soviet Experts were satisfied with the quality of indigenously manufactured refractories being used in Bokaro Steel Plant, the representative of Deptt. of Steel stated that they had not received any complaint and with these refractories they were getting a very good number of heads, 24 to 28.

4.120. In respect of coordinated development of refractories in the country the Chairman of SAIL stated that—

"We have set up a Refractory Division with a view to coordinate this. We think that these units will be managed independently. We will do the coordination.

4.121. The Committee note that the requirements of refractories for the plants of HSL and Bokaro Steel Ltd. were of the order of 2.68 lakhs tonnes in 1972-73, 2.8 lakhs tonnes in 1973-74 and 2.69 lakhs tonnes in 1974-75. The Committee were informed that although there are a number of suppliers for fire clay bricks and three suppliers for basic bricks and five for silica bricks, there has been a shortage of quality refractories in these types and some other types of refractories. Also special refractories are not made in the country and therefore have to be imported. The Committee find that the imports were of the order of Rs. 397 lakhs, Rs. 301 lakhs and Rs. 597 lakhs during 1972-73, 1973-74 and 1974-75 respectively. The Committee were informed that the SAIL had in addition to taking a number of measures to make good the shortage and to remove the constraints regarding shortage of fuel oil, movement of raw materials and finished products, etc. had taken over two private undertakings, Asian Refractories (now known as Bharat Refractories) and Assam Silimanite Limited and had also decided to put up a refractory plant of a capacity of 1.37 lakhs tonnes at Bhilai to manufacture high quality refractories. In addition, letters of intent/industrial licences have been issued by the Ministry of Industrial Development to the State Industrial Development Corporation of Tamil Nadu, Karnataka and Andhra Pradesh for creating additional capacities to the extent of over 6 lakhs tonnes of various types of refractories and

the scheme are at various stages of implementation. According to SAIL, these refractories, when set up, will be able to meet the demands of the steel plants for production of 15.8 million tonnes in 1978-79 and 20 million tonnes in 1983-84. The Committee are also informed that SAIL had set up a refractory division with a view to coordinate the development of refractories in the country. The Committee would however stress that Government and SAIL should keep a close and continuous watch on the progress made by the refractory units in the implementation of the capacities licensed/sanctioned so that there is no slippage in the programme of commissioning and in achieving the production as per capacity. The Committee would also like the Government/SAIL to ensure that the new refractory plants are coordinated with the requirements of refractories of the new steel plants. The Committee also recommend that the quality control measures in these plants should be tightened up and improved to keep pace with the fast changing technology and faster rates of production in the steel industry.

4.122. The Committee feel that, based on the experience so far gained, it should be possible to rationalise the sizes of refractories so that it might be possible to push up indigenous production of the refractories and reduce their imports.

4.123. The Committee, however, note that the Asian Refractory Plant at Bhandaridah, Bokaro and which was under liquidation was acquired by Government and handed over to the Bokaro Steel Ltd. in 1972. Although the licensed capacity of the plant was 24,000 tonnes of fire bricks and 6,000 tonnes of silica bricks, facilities for manufacture of silica bricks or the facilities in the plant were out of balance and additional balancing equipments had to be installed to achieve the licensed capacity. The Committee find that the SAIL had prepared a detailed project report to put into commission and expand the refractory plant in two stages; the first stage to achieve a total production of 24,000 tonnes fire bricks and second stage expansion to its optimum capacity of 50,000 tonnes, the capital investment being of the order of Rs. 34.3 million in first stage and Rs. 80.5 million in the second stage. It has been stated that at 90 per cent utilisation the plant would be incurring a loss of Rs. 1.87 million in stage I and profit of about Rs. 3 million in stage II. The SAIL had decided to further explore the possibilities of reduction in capital investment and to improve profitability of the plant. Although it has been stated that the production of saleable refractories had improved over previous year, the Committee would like SAIL to critically go into the economics of the plant before finalising the

decision about the D.P.R. The Committee also note that besides the constraints of raw materials and power, there are difficulties in regard to railway siding and road facility. The Committee were informed that the question of providing the railway siding had already been taken up with the railways and the question of roads with the State Governments. The Committee would like to be informed of the developments.

4.124. The Committee note that the management of the refractory plant of Assam Sillimanite Ltd. was taken over by the Government under the Industries (Development and Regulation) Act in November, 1972 and management entrusted to H.S.L. The Committee were informed that after taking over of the management of the refractory plant of Assam Sillimanite a number of measures have been taken by Government to start production and utilise the available plant and machinery to the best advantage. Accordingly the plant was commissioned in April, 1973 and production started in July, 1973. The Committee however, find that as against the envisaged capacity of 29,000 tonnes capacity in the first stage, the production in 1974-75 was only 6118 tonnes, against the present production capacity of 6500 tonnes. The Committee recommend that SAIL should chalk out a time bound programme and take suitable concerted measures to provide the necessary facilities so as to improve production and achieve the originally envisaged capacity of 29,000 tonnes. The Committee would like to be informed of the action taken in this regard.

#### (iv) Coal

4.125. Based on the report of the Committee on Assessment of Coal Demand, which submitted its report in 1971, the figures of coal requirement and the corresponding supply figures for the year 1972-73 and 1973-74 have been worked out by SAIL and given below. The requirement for the year 1974-75 is stated to have been worked out on the basis of the assessments made in SAIL while finalising the production plan for 1974-75.

| Year              | Coal in million tonnes |        |           |
|-------------------|------------------------|--------|-----------|
|                   | Demand                 | Supply | Shortfall |
| 1972-73 . . . . . | 14.18                  | 11.42  | 2.76      |
| 1973-74 . . . . . | 14.74                  | 11.30  | 3.44      |
| 1974-75 . . . . . | 13.36                  | 11.45  | 1.91      |

4.126. It would be seen from the above that the supplies of coal had fallen short of the requirement in all the years 1972-73, 1973-74 and 1974-75.

4.127. In this connection, a number of specific measures were stated to have been taken by SAIL to improve the supplies of coking coal to steel plants. Important amongst those were.

1. *Detailed linkages between the washeries and the steel plants:*

Depending upon the quality of coal, transport logistics and requirement of steel plants, detailed linkages were worked out in consultation with representatives of steel plants, coal producing organisations and the railways for the year 1974-75 in March, 1974 and for the year 1975-76 in March, 1975. These linkages form the guidelines of monthly coal allocations made by the Coal Controller before the beginning of each month.

2. *Stocking of washed coal on ground in absence of railway wagons:*

In case of non-availability of railway wagons readily, temporary stocking of washed coal on ground was arranged for subsequent loading in wagons as and when available.

3. *Accepting coal by road at Bokaro:*

Bokaro Steel Plant was not geared to take any coal by road. With arrangements for transport and unloading by trucks, about 30,000 tonnes per month of coal is being received at Bokaro by road.

4. *Power supply to Dugda washery:*

Dugda washery was suffering from power cut off and on. To stabilise power supply to Dugda, a direct line was constructed from Bokaro Steel Plant to the washery over a distance of about 12 miles on a crash basis. The line started supplying power to Dugda from August, 1973.

5. *Transport of coal by ropeway from Chasnalla to Burnpur:*

Chasnalla-Burnpur ropeway was not functioning well because of certain technical problems with the grips of the buckets. With the modification of the grips, Chasnalla-Burnpur ropeway has been functioning normally since November, 1974 transporting about 2,000 tonnes of coal per day.

6. *Additional siding facilities:*

With a view to rationalising the railway movement, additional siding facilities were provided in Katrasgarh, Kusunda and Patherdih depots in association with the railways.



**7. Ropeway from Dugda to Bokaro:**

Ropeway connecting the Dugda washery with Bokaro Steel Plant is now under installation at an estimated cost of Rs. 6.32 crores.

**8. Development of new sources of Coking Coal:**

A new source of coking from Damua-Kalichappar (Pench-Kanhan valley in Madhya Pradesh) was tried at Bhilai Steel Plant and the coal, having been found acceptable, is now being utilised to the extent of 30—35,000 tonnes per month from October, 1974.

Similar trial with coking coal from Hathnol and Katkora is now being done with a view to establishing their suitability or otherwise for adoption in coal blends at steel plants.

**9. Planning for new Washeries:**

BCCL, at the instance of SAIL had invited tenders for installation of a new coal washery of annual clean coal capacity of about 1.2 million tonnes at Sudamdih. With the transfer of BCCL to Department of Coal, this question is being followed up by them.

**10. Diesel generating sets for BCCL.**

SAIL had initiated action for setting up of diesel generating sets of an aggregate capacity of 20 MW for supply of emergency power to collieries and washeries at an estimated cost of Rs. 3.42 crores, for installation at various locations of BCCL mines.

4.128. The coking coal requirements of the steel plants comprise three categories of coking coal, namely, prime, medium and blendable. The agencies responsible for the supply of different grades of coking coal are as follows:

|  |                     |
|--|---------------------|
| Prime coking coal (washed and direct-feed) | BCCL, TISCO & IISCO |
| Medium coking coal—washed.                 | CMA (NCDC) & TISCO  |
| Medium coking coal direct feed.            | BCCL, CMAL & IISCO  |
| Blendable coal                             | CMAL.               |

4.129. The Department of Steel stated that the requirement of coal for steel plants during the period 1975-76 to 1978-79 as assessed

by the Working Group on Coal are as follows:—

(figures in '000 tonnes)

| YEAR    |           | BHILAI | DURG-<br>APUR | ROUR-<br>KELA | BO-<br>KARO | TISCO | IISCO | TOTAL |
|---------|-----------|--------|---------------|---------------|-------------|-------|-------|-------|
| 1975-76 | Prime     | 1940   | 965           | 1080          | 1020        | 1394  | 975   | 7374  |
|         | Medium    | 1391   | 712           | 864           | 953         | 697   | 374   | 4991  |
|         | Blendable | 329    | 293           | 216           | ..          | 232   | 147   | 1217  |
|         | Total     | 3660   | 1970          | 2160          | 1973        | 2323  | 1496  | 13582 |
| 1976-77 | Prime     | 1988   | 1292          | 1296          | 2031        | 1510  | 1198  | 9115  |
|         | Medium    | 1373   | 764           | 1036          | 1661        | 581   | 461   | 5876  |
|         | Blendable | 253    | 327           | 259           | ..          | 232   | 184   | 1255  |
|         | Total     | 3614   | 2183          | 2591          | 3692        | 2323  | 1843  | 16244 |
| 1977-78 | Prime     | 2006   | 1216          | 1377          | 2615        | 1710  | 1198  | 10122 |
|         | Medium    | 1385   | 851           | 1101          | 2140        | 657   | 461   | 6594  |
|         | Blendable | 256    | 365           | 275           | ..          | 263   | 184   | 1343  |
|         | Total     | 3647   | 2432          | 2753          | 4755        | 2630  | 1843  | 18060 |
| 1978-79 | Prime     | 2039   | 1321          | 1433          | 3242        | 1710  | 1372  | 11117 |
|         | Medium    | 1409   | 925           | 1147          | 2653        | 657   | 527   | 7318  |
|         | Blendable | 260    | 396           | 287           | ..          | 263   | 211   | 1417  |
|         | Total     | 3708   | 2642          | 2867          | 5895        | 2630  | 2110  | 19852 |

4.130. Irregular supply of coal is an important factor standing in the way of consistent steel production programme.

4.131. With regard to supply position of coal in the Steel Plants the Secretary, Department of Steel stated that:

“Coal is one of the most important inputs and its position is not so easy and something which we cannot remedy. But we have worked out the projection requirements for 1974-75 and also for the remaining three months of current financial year and also yearwise and plant-wise for the whole of the Fifth Plan.”

4.132. The Committee wanted to know if because of short supply of coal in Bhilai, in Durgapur and even in Bokaro, the coke oven batteries, the refractories and the furnaces were not working in full swing, and if so, what was being done at the Ministry's level. The Secretary, Department of Steel stated that:

"At the level of the Department of Energy and also at the level of the Ministry of Steel and SAIL, there is more close co-ordination and we are trying to provide as best as we can to see that the requirements of the Steel Plants are met. There is a certain amount of shortage and we are working out the stocks in the Plants. For the last one or two months, the position improved both in terms of supply as well as the better balance between the three types of coals that we require—blendable, medium and prime. The bigger problem arose especially for three or four months due to disturbed industrial relations in the Railways and beginning from January 1973, it became more acute and during that time the Railways gave a very high priority for the movement of coal to our plants. The position right now is that the detailed requirements of coal for 1974-75 have been worked out and we have been assured that the required coal would be made available to us."

4.133. In this connection the representative of Department of Coal stated during evidence that:—

"Till recently we in the Department of Mines were concerned with only a part of the coal supply to the Steel Plants. But the Department of Coal is now responsible for the entire coal supply to the Steel Plants. The coal position has been difficult, as has been pointed out by the Steel Secretary, for the Steel Plants immediately after taking over the charge of coal supply to the Steel Plants. We analysed the situation and we came to the conclusion that the situation required to be tackled in two ways. One was the long term approach to look into the question of planning for coal supplies to Steel Plants and making arrangements for producing enough coal to meet the requirements of the steel plants over the 5th and the 6th Plans. The other was the problem of meeting coal supplies in the immediate future and raising the coal supplies in the immediate future and coal stocks with the steel plants. As regards the second approach, that is the short

term approach to which we gave immediate attention a series of meetings were held between the Ministries concerned and I am happy to report that the situation is now not as bad as it was. Now, this has not to be only a temporary improvement. It has to be maintained as a result of efforts to increase coal production in the B.C.C.L. mines as well as in the C.M.A. mines. As you might be aware, this year as a result of the efforts made over the last two years or so, coal production has gone up very much more than in the past. It was at a stationary level during the entire Fourth Plan. We started the 4th Plan with an overall production of 76 million tonnes and we ended the 4th Plan with the production of 78 million tonnes thus showing an increase of only 2 million tonnes. In the first year of the Fifth Plan, we are hoping to have an increase in production of over 10 million tonnes which is about two million tonnes short of 90 million target fixed earlier. There has been unfortunately a shortfall in the over-all production of coking coal in the country. We are taking steps to increase its production.

The first step that we have taken is to review the position as it is today and to revise the plans for production."

It has also been added that a Committee has been set up under the Chairmanship of Secretary (Coal) and the Secretary (Steel) and the representatives of SAIL, Railways and Planning Commission and others as member to review the plans which were prepared in the past for production of coking coal and to find out what were the shortcomings in implementing those plans to identify the specific problems which arose in the process of the implementing those plans. This Committee has also been given the task of laying down the programme of production for the next two plans—5th Plan and the 6th Plan—and also to establish firm linkages between the various mines and the steel plants for the next two-plan periods. We have 14 washeries for washing of coking coal. In the past there have been difficulties in utilising the full capacities of these washeries. A technical committee was also appointed to go into this and a number of recommendations were made by this Committee and they are under implementation by these washeries themselves We hope that these improvements

in washeries themselves will add to the availability of the coking coal to the steel plants. In addition to the existing washeries, we are planning to set up two more washeries for prime coking coal and two for medium grade coking coal. We are fully confident that we will be able to meet their requirement.....”

4.134. According to the Technical Committee, till the commissioning of the first coke oven battery at Bokaro in September, 1972, the production and supply of coking coal were kept at a level to match the requirements. The consumption of coking coal at the steel plants during this period was lower than the planned requirements due to the downward revision made by them during the Fourth Plan ingot capacity from 12.0 million tonnes to 10.6 million tonnes and a number of operational factors and industrial relations problems prevailing at the steel plants.

4.135. With the commissioning of Bokaro's first battery of ovens, the coal demand of the steel plants went up by about 70,000 tonnes per month. This requirement was met partly by reduction of stocks in general at the steel plants. During 1973-74, the coal out-put from the collieries and washeries was affected by inadequate and interrupted power supplies. Production from the washeries was barely sufficient to meet the requirements. The Railways also had their share of trouble due to strained industrial relations. These two factors affected the availability of coking coal at the steel mills even though the Railways tried to keep up the supplies by giving priority to this movement over others. Barring dislocation in supply for certain periods coal movement to the steel plants was maintained at a fairly satisfactory level during these periods. During 1973-74, a number of steel plants were obliged to keep their oven pushings at restricted levels with a view to avoiding thermal shocks to the batteries. The position improved considerably from the second quarter of 1974-75.

4.136. The Technical Committee after analysing various aspects of coal supply, has made a number of recommendations important of which are as follows:—

(i) To avoid recurrence of coal crisis as took place in 1973-74 and 1974-75, the area of potential increases in production of coking coal should be identified as well as in advance and a shelf of mining and washery projects kept in readiness to be put through as soon as there is a definite indication of the likely demand. Marginal and short term surplus of coking coal should cause no anxiety as these

coals can always be used for non-metallurgical purposes. On the other hand even a marginal shortfall may have serious effect on the economics of steel plants with very heavy investments.

(ii) The advance action should include the determination of the quality of coal to be supplied to the new steel plants from different sources in optimum proportions. This calls for extensive testing of blends at the laboratories at and plants and ultimately commercial scale tests in the existing steel plants so that the blends recommended are in fact most appropriate for the plants when they are commissioned.

(iii) A periodical review should be made of the performance of the washeries to ascertain if the performance level could be improved upon.

(iv) The requirement of coking and blendable coals by the steel plants during 1975-76 is likely to be about 13.7 million tonnes. Detailed linkages indicate that the washeries would have to improve their output over the 1974-75 levels, especially in the latter half of the year when the third coke oven battery at Bokaro is expected to be commissioned.

(v) During the years 1976-77 to 1984-85, the production of hot metal is programmed to increase from 11.28 million tonnes to 19.89 million tonnes. Consequently, the requirement of coking coal (as charged) will increase from 16.25 million tonnes to 27.08 million tonnes.

(vi) The availability of blendable coal is estimated to match the demand provided the Steel plants accommodate coals from a variety of sources which can make available blendable coals.

(vii) The Committee has recommended certain measures such as operation of extra hours at the washeries, adoption of new beneficiation techniques, use of Assam coals etc., by which some increase in the availability of coking coal can be affected.

(viii) The major portion of the gap till 1981-82 which is likely to be widened in the event of delay in the commissioning of the new washeries, has to be met by increased production of raw coal. The additional quantity to be produced should also compensate for the higher ash in the raw coal.

(ix) Construction of Sudamdih and Monidih Washery projects should be taken up expeditiously as any delay would further upset the plans for coal supply to the steel plants.

(x) For meeting the coal demand of the Vijayanagaram and Visakhapatnam steel plants, four prime coking coal and two medium coking coal washeries are required in addition to washeries to be constructed during the fifth plan. Action for their construction should be initiated before 1978-79 so that the washeries are in production by the time additional coal demand materialises.

(xi) As a measure of conservation of coking coal, a number of steps have also been suggested, i.e. (i) evolution of proper mining techniques, development of open cast mines in Jharia, proper survey of Indian coal fields, etc. at coal mines level; (ii) Adoption of appropriate techniques of washing, preventive maintenance, stocking of spare parts and prompt attention to repairs and maintenance, etc. at washery level; (iii) maintenance of separate stock of adequate quantities of the different component of coals, mixing after crushing and blending system, selective preparation of coal, etc. at coke ovens level; and (iv) proper sizing of charge, proper utilisation of sintering plants, use of formed coke, coal dust & gas injection, etc. at Blast furnaces.

(xii) A standing group to be set up jointly by Department of coal and Department of Steel to monitor the progress of such schemes in view of the results obtained at the laboratory, pilot plant stage and commercial scale test.

(xiii) Adequate steps including rail and road, should be taken to improve the transport arrangement.

4.137. Asked about the optimum quantity of coal that should be stocked with the Steel Plants, the Secretary, Department of Steel stated that:

"The international standard is that steel plants would carry anything between 3 and 6 week's stock, depending on where the plants are located. Within India, considering the practical constraints—because it is no use asking for the moon—if we can have about 12 to 15 days of stock and maintain it at that level, we would be reasonably safe."

### *Quality of coal*

4.138. Indian coals deteriorate in quality in deeper seams of the mines due to inherent characteristics and geological formation. However, to improve the quality of coal supplied to steel plants proper quality control measures at the washeries by keeping the operation and maintenance standards upto the mark was necessary. Similarly, technical and technological efforts were required at the plants, so that the coals of higher ash content could be utilised, to the optimum extent, keeping in view the practical situation.

4.139. Steps had been taken with Central Fuel Research Institute so that new types of coal were tried and introduced for coke making for the steel plants.

4.140. The Estimates Committee in paragraphs 6.23, 6.24 and 6.26 of their 68th Report (1974-75) have observed as follows—

“6.23. The Committee view with great concern the poor performance of the washeries on which a capital investment of about Rs. 56 crores has been made.

6.24. The Committee note that steps have been taken for improving the performance of the washeries and that it would take about 2 years' time to bring about the necessary improvements so that the washeries could work up to 75 per cent of the rated capacity. The Committee regret the delay in implementing the recommendations of the Technical Committee. The Committee would like Government to ensure that all the major constraints like transport bottlenecks in the movement of raw and washed coal, non-availability of essential spares for the efficient working of coal washeries and removal of inherent defects in designing of baths and circuits and lack of planning in supplying coal of requisite quality from the coal mines to the coal washeries are removed expeditiously. The Committee also urge that in the light of experience gained concrete measures should be taken to maximise the utilisation of the capacity of the existing washeries.

6.26. The Committee are unhappy to note that the existing washeries which have a throughput capacity of 26.02 million tonnes for raw coal are expected to achieve only 13.35 million tonnes of clean coal even after carrying



out the improvements recommended by the Technical Committee. Considering the heavy investments made in the existing washeries the Committee recommend that all out efforts should be made to optimise the functioning of these washeries before setting up new units. The Committee would like this matter to be examined in depth. If it is considered to be an inescapable necessity to set up the proposed new washeries, the Committee would like to sound a note of caution that the difficulties and bottlenecks encountered in the working of the existing washeries to their full capacity should be fully taken into account and provided for while planning the new washeries so as to ensure their efficient functioning."

4.141. As regards the role played by SAIL in improving quality and supply of coal, the Department of Steel stated that since its inception SAIL had endeavoured to see that the production of washeries, which were the main sources of supply of coal to the steel plants, improve through direct co-ordination between collieries, washeries, Railways and steel plants.

4.142. It would be seen from the table below, that the output of clean coal at the washeries belonging to HSL, TISCO & IISCO had improved by as much as 18.5 per cent (93000 tonnes/month during the year 1974-75. In IISCO washery, where there was some spare washing capacity, additional raw coal from Jharia field of BCCL was arranged, which after washing was made available for allocation to steel plants. Performance of DSP washery and CCWO washeries was improved by better plant utilisation.

*Output of Clean Coal from Washeries*

(In 000 tonne)

| Source          | Av. prod./<br>month in<br>1973-74 | Av. prod./<br>month for<br>1974-75<br>upto Jan. 75 | % increase in<br>output over 1973-74 |      |
|-----------------|-----------------------------------|--|--------------------------------------|------|
|                 |                                   |  | Quantity                             | %    |
| CCWO . . . . .  | 296                               | 349  | 53                                   | 17.9 |
| DSP . . . . .   | 40                                | 55   | 15                                   | 36.1 |
| TISCO . . . . . | 104                               | 108  | 4                                    | 4.5  |
| IISCO . . . . . | 61                                | 82   | 21                                   | 32.7 |
| TOTAL . . . . . | 401                               | 594  | 93                                   | 18.5 |

4.143. Similarly output of clean coal at NCDC washeries had also improved by 15.6 per cent (29,300 tonnes/month) as per details given in the table below:

*CMAL Washeries output of Clean Coal*

(000 tonnes)

| Source                 | Av. Prod/<br>month in<br>1973-74 | Av. Prod/<br>month in<br>1974-75<br>upto Jan.75 | %increase in output<br>over 1973-74 |             |
|------------------------|----------------------------------|---|-------------------------------------|-------------|
|                        |                                  |   | Quantity                            | %           |
| Kargali . . . . .      | 114.6                            | 121.6   | 7.0                                 | 6.1         |
| Kathara . . . . .      | 54.3                             | 64.6  | 10.3                                | 18.9        |
| Sawang . . . . .       | 18.5                             | 23.0  | 4.5                                 | 24.3        |
| Gidi . . . . .         | Nil                              | 7.5   | 7.5                                 | ..          |
| <b>TOTAL</b> . . . . . | <b>187.4</b>                     | <b>216.7</b>                                    | <b>29.3</b>                         | <b>15.6</b> |

4.144. Gidi washery, which was built for washing non-coking coal and was lying idle for the last few years because of lack of offtake, was activated to produce washed medium and blendable coking coals for steel plants from collieries situated at a distance from the washery.

4.145. Ara-Sarubers coal from West Bokaro field had been tried in coal blend at TISCO and about 3000 tonnes per month was being used since December, 1974.

4.146. Ponjati Seam coal from Raniganj field had been tried in Durgapur and had been found to be acceptable. Regular movement was being organised.

4.147. Hathnol seam coal from Raniganj field was under blend test at Bhilai and Rourkela. Final results could be evaluated on completion of the tests.

4.148. The table below indicates the annual installed capacity in terms of output of clean coal, actual production and the percentage utilisation of rated capacity of the washeries of Hindustan Steel Limited for the years 1972-73, 1973-74 and 1974-75:

PERFORMANCE OF HSL WASHEIRES

(oo ' tonnes)

| Washery     | 1972-73    |         |                     |                     | 1973-74    |         |                     |                     | 1974-75    |         |                     |                     |
|-------------|------------|---------|---------------------|---------------------|------------|---------|---------------------|---------------------|------------|---------|---------------------|---------------------|
|             | Clean Coal |         | % of rated capacity |                     | Clean Coal |         | % of rated capacity |                     | Clean Coal |         | % of rated capacity |                     |
|             | Capacity   | Actuals | Capacity            | % of rated capacity | Capacity   | Actuals | Capacity            | % of rated capacity | Capacity   | Actuals | Capacity            | % of rated capacity |
| Dugda-I .   | 1680       | 610     | 1680                | 36.31               | 1680       | 639     | 1680                | 38.04               | 1680       | 741     | 1680                | 44.11               |
| Dugda-II .  | 1200       | 779     | 1200                | 64.92               | 1200       | 740     | 1200                | 61.67               | 1200       | 788     | 1200                | 65.67               |
| Bhoju'ih .  | 1400       | 1305    | 1400                | 93.21               | 1400       | 1317    | 1400                | 94.07               | 1400       | 1628    | 1400                | 116.29              |
| Pather'ih . | 1300       | 758     | 1300                | 58.31               | 1300       | 783     | 1300                | 60.23               | 1300       | 825     | 1300                | 63.46               |
| Durgapur .  | 975        | 409     | 975                 | 41.95               | 975        | 483     | 975                 | 49.54               | 975        | 766     | 975                 | 78.56               |
| TOTAL .     | 6555       | 3861    | 6555                | 58.90               | 6555       | 3962    | 6555                | 60.44               | 6555       | 4748    | 6555                | 72.43               |

4.149. It will be noticed that the performance of the washeries improved significantly during this period. However, the various factors which affected utilisation of rated capacity during the years 1972-73, 1973-74 and 1974-75 are given below in brief:—

1972-73:

The low utilisation of the washeries was mainly due to power interruptions and load shedding and inadequate supply of raw coal in suitable type of wagons at Dugda-I washery. Untimely and inadequate supply of wagons for disposal of washed coal and arisings also affected production.

1973-74:

1. Power shortage was a major constraint, affecting adversely the production of washed coal from the washeries.
2. Coal shortage resulting from shortage of power for the collieries.
3. Railway movement difficulties on account of industrial relations situation in the Indian Railways.

1974-75:

Production at the washeries improved significantly during this year. The Railway strike in May 1974 and DVC power restrictions, particularly between April-September, 1974, were the major constraints.

4.150. A number of measures have been taken to further improve the performance of the washeries as indicated below:—

- (i) At present Dugda I washery has facilities only for receiving 4-wheeler wagons, the availability of which is rather limited. With a view to facilitating the receipt of coal in Box wagons, a new tippler is being installed. Erection work has been completed and preliminary acceptance tests are in progress.
- (ii) Some amount of clean coal is lost along with the slurry i.e., muddy residue separated from coal at the washing plant. In order to recover clean coal from slurry, a new 40 tonnes per hour capacity filter is being installed at Dugda I and a similar 30 tonnes per hour capacity filter at Patherdih.

(iii) At present Dugda I washery does not have facilities for washing small coal. In order to wash and up-grade small coal, MAMC had been asked to prepare a project report which has been received and a turn-key offer has been made which is under scrutiny.

(iv) With a view to upgradation of sinks or rejects at Dugda-II so as to make them suitable for use in boilers in power plants, MAMC had been asked to prepare a project report which has been received and is presently under scrutiny. This problem in relation to the Bhojudih washery has been referred to Hindustan Steel works Construction Limited and the matter is under negotiations.

4.151. It may be added here that consequent on the transfer of the subject of coal production to the Department of Coal under the new Ministry of Energy, it has been decided, in principle, to transfer the coal washeries of HSL (except the washery at Durgapur which is a part of the Durgapur Steel Plant Complex) to the Department of Coal. It has further been agreed that, pending the completion of necessary formalities for transfer, Bharat Coking Coal Limited would treat these washeries as belonging to them with effect from 1-4-1975 and manage and fund them on this basis.

4.152. The Committee desired to know how it was proposed to tackle the problem of poor quality of coal and whether better washing would help them or not, if so, the plans for making better washeries. The representative of the Department of Coal stated that:

"The first point was about the quality of coal. As you go deeper, the quality of coal, becomes inferior to what is available in the higher seams or reaches in our country. This has nothing to do with the steel plants. It is only a question of mining the right type of coal. This is a fact of life and we cannot do anything about it. The other question is what type of coal is made available to the steel plants after washing. Now, if the coal after washing, has more ash than it should, then this might be a defect of washing. Then it has nothing to do with the type of coal which was mined. Suppose, it should have 17 per cent ash after washing, but it has more than 17 per cent ash. There can be various reasons for this.

All our washeries are not old. Therefore, in those washeries which are new, if this defect appears, it is because of lack of properly washing the coal. It means they are not doing washing as effectively as they should. Somebody, with a view to increasing the quantity of washed coal, may not be attending to the washing as thoroughly as it should be done, and there may be no defect in the machinery. Although it is as old as 1969 or 1970 or 1971, a washery has to last for 30 years; it cannot become old in two years. Again a technical committee has gone into it. This Committee has pointed out what other items of equipments etc. are required to remove these defects."

4.153. Asked if it could be related to the design of the washery the witness stated that—

"It can be. There are 14 washeries. It is not a fact that all of them are old. There is a Report of the Estimates Committee which had gone into it in great details. It is a fact that some washeries are old and in those old washeries, there may be defects of operation or washing or some equipment has to be replaced or new equipment has to be installed to correct some design defects."

4.154. Asked as to quality of coal supplied to each washery the witness added that—

"Each washery is linked, before even it is set up, with a number of mines from where the coal is supposed to come. Coal is analysed and on that basis the washery is designed. This is the technical data which is essential for the designing of the washery. In many cases, the washeries are what we call pit-head washeries, or related to the type of coal which comes from a particular mine. The NCDC has three washeries which are largely dependent for coal supply on specific coal mines. It is very wellknown in advance what type of coal is to come. The same mine may give you a little inferior type of coal which is possible.

We are going into the question of improving the utilisation of these existing washeries very effectively. We have planned for it. I submit that in 1970, a technical committee was appointed. Each washery has got to do certain things. Most of the recommendations of that com-

mittee have been put into implementation. Now, very shortly, it will be possible to reach whatever is now the rated capacity of each of the washeries within a year."

4.155. The Committee wanted to know as to how it was ensured that the requisite quality of coal was supplied to the steel plants. The witness added that—

"As you are fully aware, coking coal in our country is in short supply. Not only that. Good quality coal, namely, prime coking coal is really in short supply. Therefore, we develop what is called blends for the purpose of use in steel plants. Different types of coking coal are mixed to produce the required quality of coal mix that should go into the blast furnace. In advance, we collect the data from different coking coal mines regarding the quality at different depths. Accordingly, we develop different mines. We are trying to develop mines according to the requirements given to us by the steel plants. If they want so much of prime coking coal, so much of medium coking coal and so much of blendable coal, our attempt is that and we hope we will certainly succeed in this—that that much of prime coking coal that much of medium coal and that much of blendable coal should be made available to them. At present, we have the capacity to produce coking coal of the required quality.

We are also trying to develop in our country as much machine building capacity as possible for meeting the requirements of the new washeries that we are setting up. The NAMCO at Durgapur are setting up capacity to produce this equipment. There are some private agencies also in this country which have in the past set up washeries. It would be the endeavour of our Department to meet the entire requirements of equipment for the washeries, as much as possible locally. The NAMCO plant at Durgapur would, to a substantial degree, meet our requirements."

4.156. As regards supply of coal to Durgapur Steel Plant the Department of Steel in a written reply furnished after evidence stated that the coking coal supplies to Durgapur Steel Plant comprised the following three sources:

- (1) Washed coking coal from the washery located at the steel plant;



(2) Washed coking coal from Central washeries of Bharat Coking Coal Ltd.; and

(3) Direct-feed (unwashed) coking coal from the mines of Bharat Coking Coal Limited and Coal Mines Authority.

4.157. The quality of the coal blend that was charged in the ovens at Durgapur Steel Plant, therefore, depended upon the quality of incoming coal both as washery feed as well as direct feed coal. In both the cases, there had been gradual deterioration in quality because of deeper mining. As an example, while the ash content of the coal blend foreseen in the project report was to vary between 16 and 17 per cent, the actual ash content for the period 1969-70 to 1974-75 can be seen in the table below:

| Year    | %     |
|---------|-------|
| 1969-70 | 20.1  |
| 1970-71 | 20.5  |
| 1971-72 | 20.1  |
| 1972-73 | 20.3  |
| 1973-74 | 20.52 |
| 1974-75 | 21.30 |

4.158. As can be seen from the above that the ash content is high. The loss of production because of higher ash is not amenable to quantification but experimental data on blast furnace practice have indicated a loss of productivity to the extent of 4 per cent per 1 per cent rise in ash in coke, which is equivalent to a loss of about 6 per cent per 1 per cent rise in ash in coal.

4.159. The following steps have been taken to improve the quality of coking coal:

- (i) increase in production of the washery at Durgapur Steel Plant. During the period April, 1974-January 1975, the production of clean coal at Durgapur Steel Plant Washery has been improved to an average of 54,100 tonnes per month as against a figure of 40,400 tonnes per month during 1973-74;
- (ii) to increase the allocation of washed coal from Bharat Coking Coal Ltd. washeries to Durgapur Steel Plant from a level of about 20,000 tonnes per month during 1973-74 to a level of 35,000 tonnes per month in 1974-75; and

- (iii) constant dialogue with the CMAL and BCCL to improve the quality of direct feed (unwashed) coal.

4.160. The major steps suggested by Mahatab Committee included introduction of Joint sampling preferably at the destination, adoption of Bonus/Penalty Clause and suggestions for overall development of small collieries by the Government had been more or less implemented in as much as the entire Coal Industry had been nationalised except captive mines of TISCO and IISCO. The principles of determination of quality at destination and prices being related to the actual ash content in coal was also agreed to by BCCL and CMAL in the past. After the price notification issued by the Government on 31st May, 1974, the question had been re-opened and discussions were in progress with both BCCL and CMAL.

4.161. In a written note after evidence, the Department of Steel have informed that there is a trend of deterioration in quality of coking coal as more and more of higher grade coals are being used up. This trend is perceptible in all the Steel Plants including Rourkela. Constant endeavour is made to improve the performance of the coal washeries with a view to accommodate inferior grades of coals and also to regulate the technological process at the plants to use lower grades of coking coals. Measures have also been taken at Rourkela to supplement the lower availability of coke oven gas because of deterioration in coal quality by use of furnace oils and Naptha. All these measures enabled Rourkela to achieve 97.1 per cent fulfilment of 1974-75 production plans for saleable steel. The small difference between the plan and the actual production was as a result of factors like inadequate availability of power because of lower hydel generation in Orissa on account of poor rainfall and also factors like sudden work stoppages etc. It is not possible therefore to quantify the loss in production due only to difficulty in availability of right type of coking coal for Rourkela Steel Plant.

4.162. About the formation of the Ministry of Energy with Department of Coal under it, the Secretary, Department of Steel stated that—

“When this new Department of Energy has been formed, I think we should view it in the context that this has been formed when there has been a world-wide crisis as far as energy supply is concerned. Our own import bill on the import of oil and petroleum products went up enormously for reasons which are historically and which are now

known to all of us. Therefore, it is essential that the principal sources of energy in the country are integrated and are fully developed, both in terms of short-term and long-term needs, as effectively as possible. I think this led to the decision that the principal sources of energy in India namely power and coal should be under one Department. Now, the coal required for the steel plants was a portion of it. A portion of the matters relating to the coking coal was already there as part of the functions of the Department of Coal. As such, when we want to do long-term planning either for the washeries or for coal, it would perhaps be wise to take up a very small fraction of them. After all, there were compulsions to effect integration of coal and power. Earlier, the two departments were under one Ministry; and Power and Irrigation were separate. As such, power was integrated with coal. In this context, it is a correct decision. Bharat Coking Coal Ltd. is also now with the Department of Coal. With the formation of the Department of Coal, the entire matter relating to coal has been transferred to it. As such, the BCCL which deals with prime coal also goes along with the rest."

4.163. When asked regarding the effect of transfer of BCCL from SAIL to the Department of Energy in December, 1974 insofar as the quality and quantity of coking coal supplied to steel plants is concerned, the Department of Steel in a written reply stated as under:—

"BCCL was responsible for coal mining operation in the Jharia Coalfield and Barakar measure of Raniganj Coalfield. In addition, BCCL managed, on behalf of HSL the Central Washerries of Hindustan Steel Ltd.

Department of Steel and Steel Authority of India Limited have developed very close co-ordination with Department of Coal and BCCL. Though there were certain problems with regard to the availability of coking coal in terms of adequate quantity and the quality of coking coal, these were being continuously sorted out in collaboration with BCCL and Department of Coal."

4.164. The Committee note that irregular supply of coal is one of the factors standing in the way of consistent steel production programme. The Committee find that the supplies of coal had fallen short of the requirements during the three years. 1972-73, 1973-74

and 1974-75 by 2.76, 3.44 and 1.91 million tonnes respectively. The Committee also find that during 1973-74 the coal output from collieries and washeries was affected by inadequate and interrupted power supply with the result that the steel plants were obliged to keep their over-pushings at restricted level with a view to avoiding thermal shocks to the batteries. The Committee were informed that the Government had embarked upon long term and short term programme for supply of coal to the steel plants. As a result of the series of meetings held between the Ministries concerned under the short term approach, the position improved a little and in January, 1975, the plants had six days' stock of coal. Though according to the international standards the steel plants should carry anything between three and six weeks' stock depending on where the plants are situated, according to the Department of Steel, in view of the practical constraints if the steel plants in India can maintain 12 to 15 days' stock they would be reasonably safe. While noting the slight improvement effected in the position of coal stocks in steel plants under the short term approach, the Committee feel that much remains to be done if stocks up to the level of 12 to 15 days have to be built up in the steel plants to ensure a safe margin for continuous working. The Committee recommend that SAIL should intensify its efforts in collaboration with the Department of Energy and the Railways to raise the coal stocks with the steel plants to the safe level.

4.165. The Committee find that coke oven plants in Bokaro though installed could not be put into commission as the requisite coking was not available, resulting in serious loss of production they note that Bokaro Steel Ltd. was not also geared to take any coal by road. It is only now that SAIL has taken some steps to transport coal to the extent of 30,000 tonnes per month by road. The Committee also find that a ropeway connecting the Dugda washery with Bokaro Steel is now under installation at an estimated cost of Rs. 5 crores. The Committee hope that with these arrangements it should be possible to improve the supply of the requisite type and quantity of coal to Bokaro and step up production.

4.166. The Committee also note that the requirements of coal of all the three qualities, namely prime, medium and blendable for all the steel plants are expected to increase from 13.58 million tonnes in 1975-76 to 19.85 million tonnes in 1978-79. They are informed that besides a number of specific measures to improve the supplies

of coking coal to the steel plants like establishing detailed linkages between washeries and steel plants, stocking of washed coal on the ground in the absence of railway siding, transport of coal by road, stabilising power supply to Dugda washeries, recommissioning of ropeway from Chasnallah to Burnpur, installation of new ropeway from Dugda to Bokaro and provision of additional siding facilities and developing new blends of coal from Hathnol and Katkona collieries etc, a committee was also set up with the Secretary, Department of Coal as Chairman to view the requirements of coal supply to steel plants during the Fifth and Sixth Five Year Plans. This Government Committee after analysing the various aspects of coal supply made a number of recommendations in its report of September, 1975, important amongst which are—(a) identification in advance of the area of potential increase in production of coking coal and keeping in readiness a shelf of mining and washery projects to be put through in case of likely demand, (b) initiating advance action for determination of quality of coal and extensive testing of blends at laboratories and plants so that blends recommended are most appropriate, (c) conducting a periodical review of the performance of washeries with a view to effect improvement in them, (d) operation of extra hears at washeries, (e) adoption of new beneficiating techniques, (f) construction of new Sudamdih and Monidih washeries expeditiously and (g) establishment in time of four prime coking coal and two medium coking coal washeries to meet the demands of Visakhapatnam and Vijayanagaram plants. In addition, a number of measures have also been suggested for conservation of coking coal. The Committee find that the requirement of coking and blendable coal by the steel plants during 1975-76 is of the order of 13.7 million tonnes and detailed linkages indicate that washeries have to improve their output over the 1974-75 levels. The Committee also note that the requirement of coking coal will increase from 16.25 million tonnes to 27.00 million tonnes during 1976-77 to 1984-85. While the availability of blendable coal is estimated to match the demand in case the steel plants accept available blendable coal from all sources, the Committee find to enable increased availability of coking coal the Technical Committee had recommended certain measures such as operation of extra hours at washeries, adoption of new beneficiation techniques, etc. The Technical Committee has also observed that the major portion of the gap till 1981-82 which is likely to be widened in the event of delay in the commissioning of the new washeries, has to be met by increased production of raw coal to compensate for the higher ash content in raw coal. The Committee recommend that concerted measures should be taken by Department of Coal to improve the performance of washeries by adopting suit-

able beneficiation techniques with a view to meet the increasing demand of coking coal and also augment production of raw coal to compensate for higher ash content in raw coal.

4.167. The Committee further note that there were difficulties in the past in utilising the full capacities of the existing 14 washeries. The Committee were informed that the recommendations made by a technical committee appointed in 1970 to examine the working of the washeries are under implementation as a result of which it would be possible to reach the rated capacity very soon. The Committee however find that the percentage utilisation of capacity even in 1974-75 was as low as 44 per cent in Dugda and 63 per cent in Patherdih. It has also been stated that already steps are being taken to stabilise the power supply to Dugdab, instal wagon tipplers, and also a new 40 tonne per hour capacity filter etc. The Committee hope that with these improvements and additional facilities it would be possible to improve the utilisation of the capacity in the Dugdab washeries and to supply the requisite type of coal to Bokaro to which it is linked. The Committee are also informed that as a result of the efforts made by SAIL, the output of clean coal during 1974-75 at the washeries belonging to HSL, TISCO and IISCO has increased by 18.5 per cent and that at NCDC washeries by 15.6 per cent over 1973-74. It has also been stated that Gidi washery which was lying idle for the last few years due to lack of off-take has been activised. In addition, there are also plans to set up two more washeries for prime coking coal and two for meduim coking coal.

The Committee would like SAIL to examine the question of setting up these washeries on the most modern lines in coordination with the Ministry of energy and stress that there should not be any let up in the efforts to improve both the quality and the quantity of coal from the washeries.

4.168. The Committee were informed that there had been a trend of deterioration in the quality of coking coal as more and more of higher grade coal was being used up and constant endeavour was being made to improve the performance of coal washeries. With a view to accommodate inferior grades of coals and also to regulate the technological process at the plants to use lower grades of coking coals, steps are also being taken with Central Fuel Research Institute so that new types of coal were tried and introduced for coke making for the steel plants.

4.169. The Committee would urge that Government/SAIL should keep in view the recommendations made by the Committee of Sec-

retaries in September, 1975 and also ensure that the recommendations made by the Estimates Committee in paragraphs 6.23, 6.24 and 6.26 of their 68th Report of 1974-75 about the programme of washeries are implemented without loss of time. The Committee also recommend that proper standards of operation and maintenance are observed so that appropriate quality of coal/suitable blends of coal of minimum ash content are available to the steel plants.

4.170. The Committee also recommend that proper linkages of coal with the appropriate quality and the requisite quantity should be established well in advance and tied up with the steel plants so that the steel plants are not faced with the constraints of non-availability of requisite quantity and the quality of coal. The Committee recommend that Government should review the requirements of coal of steel plants at the commencement of each plan and review the position of coal supplies and the constraints if any every year so that suitable remedial measures may be taken in time to overcome such constraints, and supply of coal ensured.

4.171. The Committee note that in the case of coking coal supplies to Durgapur there had been a gradual deterioration in the quality of coal because of cheaper mining. While according to the project report the ash content of the coal blend was to vary between 16 and 17 per cent, the actual ash content for the period 1969-70 to 1974-75 varied between 20.1 and 21.3 percent. Although the loss of production because of higher ash content was not susceptible of quantification, it has been reported that there had been loss of productivity to the extent of 4 per cent per every one per cent rise in ash content in coal. The Committee were informed that measures like increasing production of washery at Durgapur Steel Plant, increasing the allocation of washed coal from BCCL washeries to Durgapur from 20,000 tonnes per month to 35,000 tonnes per month and constant dialogue with the CMAL and BCCL for improving the quality of direct feed have been taken with a view to improving the quality of coking coal. The Committee would like to be informed of the results achieved by these measures and would also like to watch the improvements in this regard.

4.172. The Committee note that the Department of Coal and Department of Power have been brought under one Ministry of Energy and the BCCL has been brought under the Department of Coal. Department of Steel/SAIL have developed a very close coordination with the Department of Coal and BCCL and all problems with regard to availability of coking coal in terms of adequate quantity and quality are being continuously sorted out with the Department of

**Coal.** The Committee hope that this coordination will ensure smooth and regular supply of coal of adequate quantity and appropriate quality to the steel plants. The Committee would, however, stress that there is need for a perspective plan in regard to requirements of coal and close coordination between SAIL, Coal Mining Authority, Ministry of Energy, Railways and the Plant authorities so that there may not be any stoppages on account of non-availability or inadequate availability of coal.



## PRICING AND DISTRIBUTION

### A. Steel Distribution

5.1. As it is not uncommon that marginal shortages tend to create a crisis situation in the economy with large inventory with customers leading to mal-distribution, it was felt that SAIL should organise a technical market system so that the available steel is distributed according to national priority. With this object in view, the distribution of steel was tackled from the following aspects:

- (i) Rationalising procedures to cut-down delays in the existing steel distribution system;
- (ii) Activising inventories with consumers and steps taken to reduce inventories;
- (iii) Re-organise the transportation of steel from the producers to the consumers so that the time taken is minimised and needless burden is not placed on the railways, especially by single wagon indents/despaches.

5.2. Accordingly a revised distribution policy with the following main objectives was formulated:—

- (i) Enabling movement of steel materials in bulk from the Steel Plants in line with the demands of a modern transport system and for optimum utilisation of wagon capacity.
- (ii) Availability of materials at consuming centres in adequate quantity at all times.
- (iii) Elimination of cumbersome procedures for procurement of steel and as a consequence reduction of inventory with the consumers.
- (iv) Allocation of steel on priority to Defence Engineering Exports, power, steel and coal sectors.

5.3. Some of the salient features of the revised distribution policy relate to allocation of steel by the Steel Priority Committee on a six-monthly basis, despaches from the main producers being made directly to about 800 major steel consumers; the balance allottees being provided steel by the Steel Priority Committee through the stockyards of the main producers, suitable expansion of the compact

group of industries and dispensing with the stipulation for deposit of earnest money while booking indents for steel materials.

5.4. The Steel Authority of India Ltd. has stated that the following improvements have been made in the distribution of steel:—

- (a) The Steel Authority of India/Iron and Steel Controller's Office after ascertaining the stock level drew up methods of activating the stocks so as to ensure that large stocks do not lie as idle inventories and action has been taken to reduce them.
- (b) To streamline transportation, movement in rakes is being resorted to as far as possible. 62 base destinations covering practically all the customers have been worked out to which only Steel will move in bulk in future.
- (c) Indenting and allocation system is being simplified. It was decided that despatches from the main steel plants direct will hereafter be made to 300 major SPC allottees the balance 1300 allottees would be provided steel by SPC through the stockyards of the main producers. These 800 major customers consist primarily of Government Departments, Public Sector, SSICs who cater to small industries and producers stockyards. The linkage will primarily depend upon the category that in demand and production specialisation in the Plants. The rest of the allottees (1300 in 1973-74) will get their supplies from 35 major stockyards which are spread all over the country. The list of direct allottees will be subject to revision from time to time in the light of future demands of old projects and essential demands of new projects/sanctioned industrial units. The nature and volume of requirements of new units/projects will be carefully examined before inclusion in the list of approved indentors on steel plants.
- (d) The allocations for Compact Group Units like Wire Drawing Units, Tube Makers, Electrical Lamination Manufacturers; Bright Bar Units, etc. are being made on an annual basis. For all other customers the allocations are being made on six monthly basis instead of quarterly now. Out of this for priority and big customers who can anticipate requirements well in advance, attempts are being made to make allocation on an annual basis. All these are expected to cut down considerable infructuous work at the

level of JPC, Iron & Steel Controller, Producers' Offices as well as in the SPC and save time, harassment and chasing work for customers as also reduce the time lag and uncertainty in procuring materials.

- (e) For imports which are being canalised through HSL, a detailed study of the release orders issued and the expected arrivals against pending contracts was made. Simultaneously, a team of officers are visiting various customers to explain to them about the position of their import licences/release orders and expected delivery schedule. A comprehensive system of follow up on the release orders received from customers has been organised so that ready information is available at all times on the position of release orders, probable date of arrival of material against each release order and against each customer.
- (f) As far as stockyards are concerned, procedure for distribution of material from the stockyards is being simplified in consultation with JPC to suit the genuine customers and to remove the element of discretion vesting with the Branch Managers. Small customers have all been attached to the stockyards. Also urgent and unforeseen demands would be met from the stockyards on the recommendation of the Iron & Steel Controller. Stockyards will supply steel to (1) SPC allottees who do not receive steel directly from the plants—basically smaller allocations, (2) Local and State Government Departments. The first charge of steel that is received by the stockyards is to the SPC allottee. The stockyards will also handle larger quantities of prime steel than hitherto. To strengthen the stockyards, an independent Audit Group with Headquarters in Calcutta has been set up by SAIL. They will be concerned with (a) ensuring that the stockyards adhere to the Government's policy for distribution of steel, (b) suggest ways and means of serving the consumers better, (c) simplification of procedure to help quicker and efficient distribution.
- (g) Internal working of the stockyards has been simplified by eliminating a lot of duplicate registers, documents, etc.

### **B. Role of Stockyard**

5.5. Asked about the procedure for distribution from stockyard as simplified, the Department of Steel in a note stated that under the

new distribution system effective from 2nd May, 1975 tasks assigned to the main producers' stockyards are significant. The new system envisages despatch of bulk of the iron and steel materials from the steel plants in rake loads to the stockyards of main producers and distribution of those to the customers.

5.6. The objectives of Hindustan Steel Limited selling through stockyards are:—

- (i) to assure specific deliveries to the customers;
- (ii) to reduce the lead time in procuring steel and the inventories with the customers;
- (iii) to ensure smooth movement of materials out of plants so that there may not be the situation of huge accumulation of stocks at plants; and
- (iv) to see that the ordering for the stockyards and selling therefrom to the customers become an automatic job involving only replenishment of quantities already sold and also to see that there will not be unreasonable quantum of stock at the stockyards hampering smooth and continued operation of stockyards.

5.7. In order to achieve the above objectives set in the guidelines of JPC distribution procedures stockyard facilities have been improved as follows by HSL by:—

- (a) Constructing new siding to receive rakes/half rakes in stockyards.
- (b) Equipping stockyards with additional Cranes and Handling equipments to facilitate receipt of material and delivery to the customer.
- (c) Expanding existing stockyards by taking additional land.
- (d) Opening new stockyards in important steel consuming centres.
- (e) Opening delivery points in important major steel consuming centres and also in places of industrial concentration.
- (f) Developing twisting facilities for torsteel by installing/adding twisting machines at stockyards.

5.8. By taking delivery from stockyards customers save on sales tax, shortage in transit, demurrage and wharfage, inventory costs and buying overheads. The customers who do not have private

sidings are now already transporting materials from the public booking points to their places.

5.9. It will be seen that according to the new distribution procedure, material to stockyards will move according to the predetermined demand of consumers in the area including steel Priority Committee materials.

5.10. However, there will be still cases where some items not matching the demands would come up during the course of production which have to be moved to the stockyards as a normal marketing channel. Though effective steps have been taken to reduce such arising to the bare minimum, for technological reasons, such arisings cannot be totally avoided. Other materials, as and when refused by the customers and held in stock in stockyards for a long time are disposed of through the traders which, in the normal trading language, are called as "Co-ordinated Sales." Taking into account total stockyard operations, such sales could not be more than 12 per cent. However, utmost care is taken to see that they do not create any imbalance in the market and actual consumers do not suffer.

5.11. Small consumers may obtain their requirement either from SSICs to whom supplies are generally made direct from the plants or from the Producers' Stockyards depending upon the availability. While organising despatches to these Small Scale Industries Corporations also their monthly requirement is taken into account. They can thus cater to the needs of the Small Scale Units attached to them.

5.12. The most important relevant point to note is the adequate supply of steel. Owing to reduction in Government expenditure and curtailment in house building from time to time, there may be some selling problems which will have to be tackled. In the context of an easy supply position, the opportunities for illegal deals in steel by traders have been substantially minimized. Keen interest is being taken to ensure that policies laid down are fully implemented.

#### *Supply of Steel to Engineering Goods Exporters:*

5.13. As far as supply of steel to engineering exporters is concerned, a number of steps have been taken to ensure its smooth operation. Letters of authority have been given for REP entitlement wherever justified in line with the policy of the Ministry of Commerce as for other canalised commodities so that exporters can buy themselves. In addition, the Engineering Goods Export Promotion Council has been told that SAIL is willing to arrange the import of steel on the

basis of firm export contracts with only two stipulations, namely (i) that by the time the goods are shipped, they will be in a position to give a valid release order and (ii) when the materials arrive, the parties will honour the commitment.

5.14. The Committee desired to know about the policy for allotment of Steel etc. to Agricultural Implement making Industry, the Department of Steel in most evidence reply stated that:

“There are several agricultural implements. Depending on their sponsoring authority, the implement making units apply either through the State Agro Industries Corporations or through the D.G.T.D.

Units manufacturing agricultural implements consume either steel scrap and/or other items of steel. The broad procedure for distribution is as follows:

- (i) Steel Scrap is supplied from Producers' stockyards as per quota fixed by the Joint Plant Committee.
- (ii) All other items of Iron and steel are supplied to the State Small Industries Corporations and the State Agro Industries Corporations who co-ordinate supplies to agricultural implement manufacturers.
- (iii) Iron and Steel is supplied at stockyard prices or at State Corporations' prices.”

5.15. Asked about the procedure regarding allocations being made on six monthly basis, the representative of SAIL stated:—

“It will be difficult for everybody to estimate this requirement very frequently. What we have provided is that for larger purchases where there is a plan for a longer period, they will estimate for a year. Others do it for six months. If any other need arises from time to time, they can get it from the stockyard. As far as consumers are concerned, if they can estimate their requirements well in advance, it is good. Otherwise, if there is any change, they can come and take it from the stockyard. So, the consumer is not inconvenienced.”

5.16. In regard to the availability of pig iron the witness stated that:—

"Today, the situation is very satisfactory. There is no quota. Anybody can buy as much as he wants it. \*\*\*\* But when the demand is smaller, we supply it from the stockyard. When people buy it from the stockyards, they have some advantage. Where there is a concentration of consumers, there we are asking them to come together and we will supply them in bulk. We are doing this to ensure that goods move quickly."

5.17. The Committee note that SAIL has revised its policy for distribution with a view to ensure movement of Steel materials in bulk from the steel plants for optimum utilization of wagon capacity, availability of materials at consuming centres in adequate quantity at all times, elimination of cumbersome procedures for procurement of steel and consequent reduction of inventory with the consumers; and allocation of Steel on priority to Defence, Engineering, Exports, Power, Steel and Coal sectors.

5.18. Some of the salient features of the revised distribution policy relate to allocation of steel by the Steel Priority Committee on a six-monthly basis, despatches from the main producers being made directly to about 800 major steel consumers; the balance allottees being provided steel by the Steel Priority Committee through the stockyards of the main producers, suitable expansion of the compact group of industries and dispensing with the stipulation for deposit of earnest money while booking indents for steel materials.

5.19. The Committee were informed that the present distribution policy had resulted in a number of improvements and was working satisfactorily. The Committee were further informed that as a result of these measures, steel has become easily available as compared to a position of shortage which was experienced in the past and open market trading in steel above a regulated price is reported to have disappeared in the case of most of the steel items. The Committee would like Government/SAIL to keep a continuous watch on the working of new distribution policy with a view to ensuring that the shortcomings of the old system are completely eliminated and the objectives envisaged under it are actually achieved and the priorities fixed for the use of steel are not disturbed and there is no mal-distribution or scarcity of steel.

5.20. The Committee were informed that as a measure of improvement, steps were being taken to reduce the time lag between the indenting and allocation from the present level of about 6½

months to two months for all indentors. The Committee desire that concerted measures should be taken to reduce the time lag between indenting and allocation/supply of steel to the minimum which should not normally exceed two months.

5.21. The Committee note that according to the revised procedure, the stock-yards will supply steel to (1) SPC allottees who do not receive steel directly from the plant—basically smaller allocation, (2) local and State Government Departments. The Stock-yards will also handle larger quantities of prime steel than hitherto. To strengthen the stockyards, an independent Audit Group with Headquarters in Calcutta has been set up by SAIL (a) to ensure that the stockyards adhere to the Government's policy for distribution of steel, (b) to suggest ways and means of serving the consumers better and (c) to simplify the procedures to help quicker and efficient distribution.

5.22. The Committee also note that with effect from 2nd May, 1975 a new distribution system has been introduced which envisages despatch of bulk of iron and steel materials from the steel plants in rake loads to stockyards of main producers and distribution of these to customers. The stockyard facilities have also been improved by constructing new siding facilities, equipping stockyards with additional cranes and handling equipments, expanding for existing yards, opening new stockyards in important steel consuming centres, opening delivery points in important major steel consuming centres and in places of industrial concentration etc. It has been stated that according to the new distribution procedure material to stockyards will move according to pre-determined demand of consumers in the area including Steel Priority Committee materials. It is, however, apprehended that there would still be cases where some items not matching time the demands would come up during the course of production which have to be moved to stockyard as a normal marketing channel, though effective steps have been taken to reduce such arisings to the minimum. It is also stated that steel consumers may obtain their requirements either from Small Scale Industries Corporations to whom supplies are generally made direct from the plants or from producers stockyards depending on the availability. Since adequate and easy supply position is ensured, it has been stated that opportunities for illegal deals in steel by traders have been substantially minimised.

5.23. While the Committee feel that with the implementation of new distribution policy and with increased production of steel, it



should be possible to make steel easily available to all consumers. The Committee recommend that the working of the new distribution procedure and working of stockyards should be kept under constant and continuous review and necessary improvements made in the light of experience gained to ensure that steel is available easily to all consumers and the stockyards serve the purpose for which they have been set-up.

5.24. The Committee note that in order to meet the requirements of units manufacturing agricultural implements, steel scrap is supplied from Producers' stockyards as per quota fixed by the Joint Plant Committee and all other items are supplied to the State Small Industries Corporations and the State Agro-Industries Corporations who co-ordinate the supplies to agricultural implements manufacturers. Iron & Steel is supplied at stockyard prices or at State Corporation prices. The Committee recommend that in order to ensure that agricultural operations are not hampered for want of adequate supplies of agricultural instruments, priorities should be fixed for the iron and steel required for such implements on the basis of assessments made through sponsoring authorities. They have already given their recommendation in para 5.47 of this Chapter that SAIL should make sure that prices of iron & steel for agricultural needs are kept within reasonable limits.

### C. PRICING POLICY

5.25. On October 4, 1973, Government approved the proposals brought out by SAIL on Pricing Policy for Steel. The proposals, *inter alia*, aimed at the following objectives:

- (a) Ensure supply of steel to meet bulk of the requirements of priority needs of Government Departments, public sector and some sectors of industry. This will benefit the widest section of the community. The bulk of these categories of steel should be provided at lower prices to be informally regulated from time to time by Government by taking into account cost of production and minimum return to producers.
- (b) Permit prices of the other categories of steel to be fixed in relation to supply and demand, so that consumption of steel in certain areas which have been excessive due to "cheap steel Policy" is progressively curbed. Curbs

on consumption of steel have added advantage of imposing an almost simultaneous curb on consumption of important scarce commodities like cement, timber, aluminium, etc.

- (c) Mop the surplus profit in the 'open' market and with steel users so that the resultant internal resources so generated within the steel industry are used for its expansion and growth.
- (d) Ensure that Government does not have to dole out subsidies in the form of larger loans and outlays to public sector plants which only add to the inflation. To the extent there is larger generation of financial resources in the steel industry, there will be a less draft on Government finance.

5.26. The dual pricing policy came into force through an announcement of Joint Plant Committee dated 15th October, 1973 wherein it was stated that revised prices will be applicable to all steel materials despatched on and after the midnight of October 14/15, 1973.

5.27. The circular of 15th October, 1973 has divided all saleable steel under the following three categories:

**Category 1:** Plates, Structural, Railway materials etc. There has been no increase in their base selling prices with effect from 15-10-1973.

**Category 2:** Seims, Billets, Bars, GP/GC Sheets, etc. There has been an increase in the base selling price of these items with effect from 15-10-1973.

**Category 3:** HR/CR Coils, Sheets etc. There has been an increase in the base selling price of these items with effect from 15-10-1973.

5.28. The Government constituted an Inter-Ministerial Committee on 24th October, 1973 to work out the retention prices of various categories of steel for the main producers taking into account productivity, cost and investment. The terms of reference of the Committee were:

- (i) Establish realistic cost and productivity norms of each plant taking into account plant capacity, raw material position and the total productive situation in each plant.

- (ii) Fix appropriate rate of depreciation so that money is available to each plant for optimum repair and maintenance.
- (iii) Fix rate of return of capital taking into account the inflationary increases.
- (iv) Determine retention prices and also the period for which these prices should be fixed.
- (v) Consider evolving a formula, if possible, where changes could be made in the retention prices once every year, taking into account escalations in cost and other relevant factors.

5.29. While considering the matter, the Committee took into consideration the rationale of the retention price arrangement as envisaged by Government in its norms of reference. In the past retention price represented the amount retained by the steel producer. It was this amount which entered the profit and loss account of a steel company. The difference between the net realisable price and the retention price was credited to the steel equalisation fund, administered by the Government of India in the Ministry of Steel. In other words, under the old scheme, from the point of view of the individual steel producer what really mattered, was the level of retention prices and not the selling prices.

5.30. Under the arrangements now in force the position is that from the point of view of the steel producer, it is the net sales realisation which shapes his profit and loss account and balance-sheet. This selling price is not based on any calculation of the cost of production, including a reasonable margin of profit. The entire sales proceeds will enter his annual profit and loss account. The liability of a company for taxation will also be determined on the basis of the net sales realisation. In this arrangement, the retention price therefore has no impact on the profitability or the public image of the working of the company.

5.31. The proposed arrangement envisages that the difference between the net sales realisation and the amount that would accrue on the basis of the retention prices should be separately funded in a central fund but this would be done after the company has provided its tax liability on the basis of its profit and loss statement. The Central fund would be distinct for each producer and the funds therein available for use on approved capital schemes to the producer concerned alone.

5.32. The system of retention prices now proposed was primarily devised to provide a yardstick or a norm against which the operational performance of individual units could be judged. The basis for calculating retention price was what was technologically attainable in the present context in the plant and *not* what could be expected to be achieved on a realistic basis, taking into account the special factors of various kinds such as labour unrest, difficulties in regard to supply of coal or power etc., and while calculating the retention price the Committee used the figures of technologically attainable capacity which was based on the available data. The effort was to evolve uniform retention prices for all producers in respect of a particular product.

5.33. In the absence of scientifically established norms of consumption, unit prices of materials and services, labour productivity, and production capacity of plant units, the Inter-Ministerial Committee has adopted the actual works costs for the financial year 1972-73 with a 15 per cent rate of return on capital employed as computed by each plant as the basic document for working of retention prices. The Committee had not taken into consideration the profits earned on sale of pig iron and certain other products by the plants.

5.34. Taking all factors into consideration the Committee recommended the structure of retention prices in respect of categories 2 and 3 effective from 15th October, 1973. No specific retention price was recommended for category 1.

5.35. Apart from retention prices to be effective from 15th October, 1973, the Committee recommended a substantial escalation to be effective from 1st February, 1974. The escalation formula provided that as and when increases beyond 5 per cent of the works cost (excluding depreciation) took place, the plants could approach the appropriate authority for revision of retention price.

5.36. When the retention price including cost escalations exceeds the net realisation (inclusive of applicable extras) in respect of a particular product, no contribution to central fund would be available; the negative contribution arising therefrom should not be adjusted against contribution due on other products.

5.37. The dual pricing policy came into force with effect from 15th October, 1973 and has been successfully implemented. Government had constituted an Inter-Ministerial Committee to work out the Retention prices. The Committee submitted its report in

May, 1974. Government have forwarded the said report to SAIL for implementation. In the meanwhile, Producers have commenced deposits into the Central Fund on the basis of provisional retention prices.

5.38. It was stated that the objectives of trial priority policy have been achieved to a large measure as indicated below:

- (i) Pricing of plates, structurals and railway materials wheels, tyres and axles continue to be as it was before 15th October, 1973 i.e. when the new pricing policy came into effect. Since these categories meet bulk of the requirements of priority needs of Government Departments, public sector and some sectors of industry, this has benefited the widest section of the community.
- (ii) The prices of categories other than plates, structurals and railway materials were revised upwards on 15th October, 1973 as a result of which these items became expensive. Price increases had the effect of reducing unwanted consumption. Since steel is consumed along with cement, timber, aluminium etc., reduction of steel consumption reduces consumption of these articles.

In the case of HR/CR Sheets, coils, Skelp, Bars and Rods, GP and GC Sheets price were increased. It is seen in these categories Government or the community is not the main consumer and so to the great extent the burden will be borne by the class which can afford to bear it.

5.39. The Management stated in a written reply that the working of new policy was being continuously reviewed. Arrangements had been made to get market reports from all over the country and these were continuously studied. It was seen that open market prices wherein there was considerable premium had come down. The fall in market premium was as much as Rs. 3000 per tonne in certain sizes of plates and over Rs. 1,500 per tonne in many categories of structurals and sheets. Many other categories like light structurals, semis, bars and rods did not enjoy any premium at all in the market. The new pricing policy was helped by an increase in domestic production. The psychology of shortage had changed to one of easy availability. Previously steel was available for priority uses only through the Steel Priority Committee, now it is available through the stockyards also.

5.40. Items, other than plates, structurals and Railway materials had considerable amount of premium in market 11.3/12.3 because of the low steel prices and high profit earning ability of steel using industries. In that context, the increase in steel prices had the effect of mopping up surplus profits.

#### D. Central Fund

5.41. The Management further stated that a Central Fund had been created into which the steel plants had started depositing the additional profits, viz., the excess of selling prices obtained over the retention prices. Steel Authority of India Limited had laid down the modalities for the administration of this fund. Each of the steel plant paid into the fund the difference between the ex-works retention price and the ex-works selling price less income-tax. Withdrawal from the Fund was allowed for the purpose of meeting the capital outlay of steel plants under schemes approved by Steel Authority of India Limited in consultation with Planning Commission. Creation of the Central Fund which was made possible, through the pricing policy, had reduced, to that extent, large outlays and loans to public sector plants.

5.42. As regards contribution of steel plants to the Central Fund and their withdrawals therefrom till end of 1974-75, the following information has been furnished by the Ministry:

|                 | Contributions | Withdrawals  |
|-----------------|---------------|--------------|
|                 | Rs.           | Rs.          |
| TISCO . . . . . | 9,05,47,542   | 8,95,00,000  |
| HSL . . . . .   | 19,35,55,082  | 19,15,00,000 |
| IISCO . . . . . | 1,40,33,673   | 67,00,000    |

5.43. In regard to Central Fund the representative of SAIL/ Government stated that—

“In short, this fund; it is not a consolidated fund. When we went in for dual pricing, a Committee went into the costing of various plants and came to the conclusion that out of the price increase of those categories in which there had been an increase—in some there was no increase—so much would remain with the plant and the rest should be put in a fund deposited with the Steel Authority. This belongs to the profit and loss account of the individual company. But this money can be used for development and expansion in the company con-

cerned. This would result in greater production of steel. Restriction was also imposed on the private sector plants that they would not declare dividend higher than the average of last three years. Rules were framed for the use of this fund."

5.44. Asked as to how much had been utilised out of Central Fund, the representative of SAIL stated that—

"Practically there is no money. All the time there was inflow and outflow."

5.45. The Committee pointed out that while the Steel Plants were selling their products at a fixed price, the private traders were selling their products at higher price and asked whether there was system by which one could find out whether the private traders were selling their finished goods at reasonable prices or higher prices, the Chairman of SAIL stated:

"We, in the Steel Department, do not impose any price restriction on the end we are only ensuring that whatever steel is coming, that should not have steel who are not supposed to hold it. That is why we are carrying out a very large number of raids and inspections. This is an important change which we made in the dual pricing policy to mop up part of the profit. I agree that there is no correlation and it would not be possible to control all the end-products in steel. There is only one possibility and that is the larger availability of steel. One may consider that such a stage may arise when there will be a lesser demand where the steel producers will be able to adjust prices in relation to market supply and demand. But, at the same time, if we keep a strict control on the end use of steel by ensuring that Steel was given and distributed only to priority users, a stage may come."

5.46. The Committee pointed out that the smaller units, which bought steel from stockyards had to pay more for steel than the bigger units which got it from the steel plants direct and the smaller units thus found it difficult to compete with bigger units. On being asked whether it was possible to evolve a procedure, like that of freight equalisation etc., under which the burden of smaller units in this regard could be distributed to all the units, the representative of SAIL stated that this matter was being discussed with other Ministries and the Government would consider the difficulties of the smaller units.

5.47. The Committee note that a system of dual pricing policy was adopted and implemented by SAIL with effect from 15th October, 1973 (i) to ensure supply of steel to meet the bulk of the requirements of priority needs of Government Departments. Public Sector and some sectors of industry at low prices based on cost of production and minimum return to producers, (ii) to permit prices of the other categories of steel to be fixed in relation to supply and demand and (iii) to mop up the surplus profit in the open market and with steel users so that the internal resources so generated are used for expansion and growth of steel industry. They were informed that the new pricing policy had the expected effect of reducing premium in certain varieties, unwanted consumption of steel, cement and timber, eliminating black market in steel and mopping up surplus profits and that its working was being continuously reviewed. It has also been claimed that the psychology of shortage had changed to one of easy availability. While the Committee appreciate the rationale to provide steel for public sector and some sectors of industry at lower prices, and to permit prices of steel for general use to be fixed in relation to demand and supply, they feel that SAIL should keep a constant vigilance on open market prices and ensure that the mechanism of supply vis-a-vis demand does not in any way operate to the detriment of the consumers. The Committee would like SAIL to keep the working of the dual pricing policy under review in order to ensure that the purpose with which the policy has been introduced is actually achieved. The Committee would like SAIL to examine in particular the effect of dual pricing policy on implements, pumpsets and other such things used in agricultural sector and see whether the prices of steel used to meet the requirements of agricultural sector are within reasonable limits.

5.48. The Committee were informed during evidence that when the SAIL went in for dual pricing policy, an inter-ministerial Committee on retention prices went into the costing of the various plants and came to the conclusion that out of the price increase in certain categories of steel, a portion of increase will remain with the plants and the rest would be put in a fund called the Central Fund. This money would belong to the Profit and Loss Account of the individual company and could be used for development and expansion of the company concerned. The Committee were also informed that the Steel Plants had started depositing the additional profits, viz., the excess of selling price over the retention prices, into the Central Fund. Withdrawals from the Fund were allowed for the purpose of capital outlay under schemes approved by SAIL in consultation with the Planning Commission. The Committee were, however, sur-



prised to learn during evidence that practically there was no money left in the Fund as all the time there was inflow and outflow. The Committee recommend that the steel plants should not use the Fund as a current account in a bank to meet their day-to-day needs but should build up the Fund to meet the capital outlays on duly approved schemes for the growth and expansion of steel industry for which it was envisaged.

5.49. The Committee would like the Government/SAIL to keep a close watch on the working of the Central Fund with a view to see that the moneys put in the Fund are utilised for the purpose for which this fund has been set up.

5.50. The Committee were given to understand that there have been disparities between prices at which smaller units were getting steel from stockyards and the prices at which steel was being supplied to bigger units direct from the plants. The Committee were informed that the question of disparity between the prices at which the smaller units got steel from stockyards and the prices at which the bigger units got steel from the Steel Plants was being discussed by SAIL with other Ministries and the Government would consider the difficulties of the small units. The Committee would like to be informed of the developments. The Committee recommend that SAIL should evolve a procedure by which such disparities are eliminated. The Committee would like to be informed of the action taken.

5.51. The Committee, however, find from the new distribution scheme effective from 2nd May, 1975 that small consumers may obtain their requirements either from Small Scale Industries Corporations to whom supplies are generally made directly from plants or from producers' stockyards depending on availability. They can thus cater to needs of small units attached to them. The Committee hope that with the introduction of the new distribution scheme, any disparity in prices would be eliminated.

## VI

### IMPORTS & EXPORTS

#### A. Imports

6.1. The Import Policy for iron and steel is announced by CCI&E. in the beginning of each financial year alongwith Import Policy for other commodities through Import Trade Control Book. At the time of framing the Policy, a careful assessment is made by the Iron and Steel Controller, of demand and availability of various categories of steel required in the country by actual users/manufacturers, in consultation with the indigenous producers of steel, consumers, Associations representing various organisations and representatives of Government Departments. With the data available, gaps in each quality and specification are worked out and importable categories identified for inclusion in Import Policy. An attempt is thus made to meet the gap between production and demand by imports.

6.2. The import of steel has been gradually canalised in keeping with Government policy. Most of the M.S. items, some of the alloy and special steel items and stainless steel items which are bulkable have been included in the canalised list. The canalising agencies initiate advance action to the extent possible, draw up import plans on the basis of the requirements of consumer industries and arrange for imports. The payments for import are made in free/Rupee currencies depending upon source of import. Rupee imports are under bilateral trade agreements entered into with the respective countries.

6.3. Some imports are also made under credit when such facilities are available. For such imports, credit conditions and procedures laid down in the credit agreements are adhered to.

6.4. Steel supply position has improved very considerably in the last one year. Production from integrated steel plants is higher during 1974-75 as compared to the previous year, representing an increase of 8 per cent. With special efforts to activise inventories, supply of steel to the economy from main steel plants in the period from April, 1974 to July, 1975 is higher by 6,34,000 tonnes, which represents an increase of 18 per cent as compared to the ten months period of the previous year. The production in 1975-76 was expected

to increase still further. As a result supply position of steel would improve further. Thus it was expected that supply of steel from the steel plants would be adequate to meet the requirements of the country during years 1975-76. In fact there would be export of some categories of steel and that the imports of steel would be substantially reduced. Imports would be restructured to only those very special categories which were either not produced in the country or in some categories of which the production might be less than required, like, boiler quality plates, ship-building quality plates, extra deep drawing quality cold rolled sheets, OTSC quality tin plates, etc. Overall, the steel supply position in 1975-76 was expected to be fully satisfactory.

6.5. The imports of steel (category-wise and year-wise) during the last three years are given below:—

*Quantity in tonnes/Value in Lakhs*

|                                 | 1972-73   |       | 1973-74   |       | *1974-75<br>(April—Sept. 74) |       |
|---------------------------------|-----------|-------|-----------|-------|------------------------------|-------|
|                                 | Quantity  | Value | Quantity  | Value | Quantity                     | Value |
| 1. Pig Iron, Spurge             | 571       | 12    | 697       | 15    | 433                          | 11    |
| 2. Ferro Alloys                 | 1,618     | 73    | 366       | 26    | 728                          | 30    |
| 3. Cast Iron                    | 1,180     | 84    | 2,091     | 187   | 1,535                        | 133   |
| 4. Mild Steel                   | 9,64,096  | 15028 | 8,48,381  | 17535 | 4,30,919                     | 11855 |
| 5. High Carbon Steel            | 1,96,457  | 3110  | 93,655    | 2035  | 71,066                       | 1882  |
| 6. Alloy Steel                  | 58,837    | 3148  | 79,515    | 4173  | 30,105                       | 2339  |
| 7. Steel Castings<br>& Forgings | 6,271     | 476   | 6,539     | 688   | 3,180                        | 293   |
| 8. Iron & Steel Scrap           | 8,053     | 80    | 24,710    | 290   | 3,631                        | 68    |
|                                 | 12,37,083 | 22011 | 10,55,954 | 24949 | 5,41,597                     | 16611 |

\*Imports during the second half of the year 1974-75 are likely to be less because of better domestic availability.

6.6. In regard to imports for 1975-76 it has been stated that the total demand for various categories of mild steel in 1975-76 had been tentatively estimated to be about 6.2 million tonnes. To the extent of about 90 per cent, the various types of steel produced within the country would be available and only to the remaining extent to about 10 per cent imports might be necessary.

6.7. Imports are at present generally from free foreign exchange, although in certain Trade Plans there may be provision for import of steel. However, there is no barter involved in steel imports.

6.8. In aggregate terms, even in 1975-76 this country may be said to be self-sufficient in steel. Even now we are self-sufficient in various categories like steel billets, steel bars and rods and certain railway materials. It may be pointed out that it is neither technologically possible nor economically desirable for every country to be self-sufficient in every category of steel. Almost all countries import certain categories of steel taking into account technological and economic considerations.

6.9. Asked whether SAIL had made any study of pattern of imports in order to devise programme of production so as to cut down imports to the minimum, the representatives of SAIL stated during evidence:—

“We have made out a pattern by which, I think we will be self sufficient in total tonnage and we will have certain surpluses also. But as I mentioned, certain steels are exported by all countries and certain steel will have to be imported. No country can produce every single category of steel. Some imports will have to be made always. We have drawn a long term plan, and also for immediate implementation. We do not do any barter.”

“We have succeeded in reducing the imports considerably by two ways-(1) new production coming in (2) by changing the product mix to meet those demands which we were meeting by import earlier and to use our capacity in such a way that we will import the minimum that is possible.

Compared to last year our import this year would go down considerably. Compared to of imports during 1974-75 and earlier, next year I think it should be about 300 thousand tonnes, the main cut will be in hot rolled, coil as this will be produced at Bokaro. This effort will be continued so that the imports will be kept at the minimum with which we can do. We have said that the imports are to be

kept. No doubt, Essentially in our various plants we have the capability upto a point whether it is structural, rail mill, wires, rods or other products. We do condition our production programming in such a way as to be able to ensure that it is priority oriented. When it is priority-oriented, naturally it automatically cuts down imports, wherever it is possible. This is a fundamental thing in our planning."

6.10. Explaining the balance between imports and exports the Chairman of SAIL stated:—

"The imports are larger, but we are forecasting that from next year, we will be importing less and our exports will go up progressively."

6.11. The Committee note that imports of iron and steel amounted to 12,37,083 tonnes in 1972-73, 10,55,954 tonnes in 1973-74 and 9,20,858 tonnes in 1974-75. It has been stated that the total demand for various categories of mild steel in 1975-76 has been tentatively estimated to be about 6.2 million tonnes, of which about 90 per cent would be met by indigenous supplies while for the remaining 10 per cent imports of very special categories of steel, which are either not produced or the production of which may be less than required, like, boiler quality plates, ship building quality plates, etc. would be necessary. The imports during 1975-76 are estimated to be about 3 lakh tonnes as against 9 lakhs in 1974-75 and the main cut would be in hot rolled coil which is expected to be available from Bokaro. The Committee are informed that in aggregate terms even in 1975-76, the country would be self-sufficient in steel and that it is already self-sufficient in various categories like steel billets, steel bars and rods and certain railway materials. The Committee are further informed that the SAIL has made out a pattern by which the country would be self-sufficient in total tonnage and would have certain surpluses also but still certain types of steel would have to be imported as it was neither technologically possible nor economically desirable for a country to be self-sufficient in every category of steel. It is claimed that SAIL has succeeded in reducing the imports considerably by two ways; (1) new production coming in, and two, (2) by changing the product-mix to meet the demands which were met earlier by imports and utilising the capacity in such a way as to reduce the imports to the minimum.

6.12. While the Committee note that the import of iron and steel have come down progressively from 1972-73 the Committee recommend that Government should appointed an Expert Committee to

go into the question of reduction of imports and diversification of product-mix so as to attain self-sufficiency in steel. The Committee would like to be informed of the action taken within three months of the Report.

## B. SAIL INTERNATIONAL

6.13. In a written note the Committee were informed that SAIL INTERNATIONAL LIMITED had been set up as a subsidiary of Steel Authority of India Ltd. with effect from the 10th June, 1974 to Co-ordinate the export and import business. Explaining the need for setting up a separate co-ordinating agency for the proper and the main functions and achievements of the new Company, the Management of SAIL stated that Steel Exports in the past had been conducted and adjunct to the home marketing activities of both the Primary and Secondary producers. Sporadic efforts used to be made in the past depending upon the home market conditions and the gaps in internal demand. Consequently the export graph used to show peaks and valleys.

6.14. The following table shows exports of steel (both quantity and value) during 1971-72, 1972-73, 1973-74 and 1974-75:

| Categories                         | (Qty. in tonnes) |               |               |               |
|------------------------------------|------------------|---------------|---------------|---------------|
|                                    | 1971-72          | 1972-73       | 1973-74       | 1974-75       |
| Round/plates/Bars & Rods . . . . . | 4,536            | 4,519         | 6,667         | 32,887        |
| Structurals . . . . .              | 1,06,674         | 53,066        | 3,386         | 2,227         |
| Rails . . . . .                    | 90,017           | 10,338        | 24,947        | ..            |
| Billets . . . . .                  | ..               | ..            | ..            | [16,262       |
| Sheets . . . . .                   | 751              | 2,899         | 1,652         | ..            |
| Wires . . . . .                    | ..               | ..            | ..            | 759           |
| <b>TOTAL . . . . .</b>             | <b>2,01,978</b>  | <b>70,822</b> | <b>36,652</b> | <b>52,135</b> |

(Value in rupees lakhs)

| Categories               | 1971-72        | 1972-73       | 1973-74       | 1974-75        |
|--------------------------|----------------|---------------|---------------|----------------|
| Round/Plates/Bars & Rods | 37.62          | 40.60         | 112.03        | 784.93         |
| Structurals              | 958.33         | 493.21        | 48.81         | 45.02          |
| Rails                    | 799.83         | 74.89         | 265.00        | ..             |
| Billets                  | ..             | ..            | ..            | 226.61         |
| Sheets                   | 9.19           | 36.46         | 36.16         | ..             |
| Wires                    | ..             | ..            | ..            | 36.17          |
| <b>TOTAL</b>             | <b>1804.97</b> | <b>645.16</b> | <b>462.00</b> | <b>1092.73</b> |

6.15. Pig Iron Exports during 1971-72 to 1974-75 were as below:

|           | Qty. (tonnes) | Value (Rs. lakhs) |
|-----------|---------------|-------------------|
| 1971-72*  | 2,18,145      | 743.85            |
| 1972-73*  | 4,06,715      | 1323.23           |
| 1973-74*  | 4,30,801      | 1559.23           |
| 1974-75** | 1,38,551      | 770.05            |

\*Source—Steel Exporters Association.

\*\*Source—SAIL International Limited.

6.16. It would be seen from the Table that exports of steel during the period 1972-73, 1973-74 have been low and there has been sharp decline during the period 1973-74. Export commitments could be taken to be of same order as the actual exports in view of the facts mentioned below.

6.17. During the financial year 1971-72 export policy for steel continued to be regulatory in view of the shortage experienced in the country. Only limited exports were permitted so as to make more steel available for meeting the internal growing demands of engineering and other industries. However, an effort was made to fulfil the past commitments and maintaining foreign markets with a view to stabilising trade relations with friendly countries.

6.18. In 1972-73, to ensure maximum availability of steel to growing domestic demands only limited quantities were allowed to be exported. Exports were restricted to meet past commitments and to maintain some export markets, partly as an insurance against vagaries of domestic demands.

6.19. In 1973-74, export of steel was reduced to the minimum requirement to retain market contacts developed in the past and for meeting some requirements of neighbouring countries.

6.20. In 1974-75, in view of the sharp increase in production and activation of stocks, steel availability in the country increased sharply and in categories like billets, bars and rods, and rails indigenous availability was considerably above domestic demands.

6.21. The absence of a coordinating agency for organising the support systems for directing the steel exports, used to create a void in the planning and day-to-day liaison with the Government at the apex level. Taking stock of this situation, it was felt that the objectives of promoting steel exports in a balanced way would be better served by setting up a canalising agency. *Inter alia*, it was also felt... that the same agency could bring under its umbrella the steel imports so that available experts, market intelligence and the bargaining strength could be properly integrated under this one organisation.

6.22. With regard to creation of canalisation agency, the Deptt. of Steel intimated in a reply furnished after evidence that SAIL International was set up as a canalising agency on July 23, 1974. Under the role assigned to SAIL International it had been acting as the canalising agency for the exports of bars and rods and wires from the Private Producers as well as the exporting agency for the steel products from main plants.

6.23. It was also added that SAIL International Limited has been recognised as a registered export house for export of iron and steel products by the Government and has acted as a forum for the quick scrutiny of the export applications submitted by the Indenting Exporters.

6.24. In the beginning SAIL International used to function in unison with the Steel Exporters Association for scrutinising the export applications, clearing the prices quoted with reference to floor prices, and recommending the cases which fulfil the laid down conditions to JCCI&E for the issue of export licences. Progressively the need by transfer the executive functions of SEA to SIL was recognised by the Government so that the number of links in the chain of processing the export applications can be reduced. Government has already announced *vide* Export Instruction No. 4/75 dated 18-1-75 that SAIL International Limited should take over the functions of



fixing floor prices, and recommending the applications for issue of export licences.

6.25. Taking careful note of the export opportunities available, SAIL International concentrated in the beginning months to negotiate export deals primarily for rails and billets. The most important contract negotiated by SAIL related to supply of 1,30,000 tonnes of Vic-bova rails to Iran for a total value of about 55 million dollars. This would serve the objectives of getting valuable foreign exchange as well as providing a fillip to the order loads on the Rail and Structural Mill of Bhilai for the next 30 months during which period the shipments are to be spread over. In terms of the future projections, the original indications given by the Indian Railways was that for the next three years commencing from 1975-76 onwards, there would be an off-take @200,000 tonnes per annum for all the profiles put together. However, in terms of the recently finalised works programme for the financial year 1975-76 the assessed requirements for the profiles of Bhilai would not exceed 113,000 tonnes. In view of the shrunken demand from Railways, there is scope for taking few filler orders of rails for export. To serve this end, it has been stated that negotiations are being carried out to find out the export possibilities of rails to other destinations. The price indications in this context have been found to be favourable.

6.26. The exports of Billets, slabs and bars and rods etc. and other categories of steel which can be spared without affecting priority demands inside the country will it is stated, be undertaken as the situation demands and opportunities arise. It has also been possible to book orders from Iran, Sri Lanka, Bangladesh and Kenya. The total quantity of orders booked for billets would come to 59,000 tonnes and the value involved is Rs. 9.964 crores.

6.27. A total quantity of 35,338 tonnes of bars and rods, 792 tonnes of wires and 25,000 tonnes of pig iron have been canalised as on date through SAIL International for the issue of export licences. The FOB value of the licences thus cleared comes to Rs. 8.4 crores in the case of Bars and Rods and Rs.2.68 crores in the case of pig iron.

6.28. It is seen from the annual report of SAIL International Limited that it has (1) a number of important tenders during 1974-75 including a tender for 8,900 tonnes of bars and rods floated under the IDA credit by the Bombay Municipal Corporation, another IDA tender for 28,000 tonnes of pig iron floated by Bangladesh and a tender for 6,000 tonnes of billets floated by the Ceylon Steel Corporation. Repeated orders for supply of pig iron to Bangladesh and billet to Ceylon

and Iran have also been negotiated. In addition, SAIL International Limited has been able to negotiate contract for supply of 27,000 tonnes of pig iron with Turkey. The total value of contracting done during 1974-75 is stated to be of the value of Rs. 58 crores.

6.29. Government has stated vide public notice No. 196 dated 31st December, 1974 that SAIL International Limited would also act as the canalising agency for steel imports from 1st January, 1975. SAIL International has already received release orders valued 18.23 crores. In addition, release orders issued earlier in the name of H.S.L. and not serviced earlier had also been transferred to the SAIL International Limited. It has been stated that during the year 1974-75, as a canalising agency, the SAIL International Limited had processed 87 export applications.

6.30. Keeping in view the market trend and internal availability, the import programme for 1975-76 envisages an import of nearly 2 lakh tonnes of various items of steel valued approximately Rs. 68 crores.

6.31. It has been stated that SAIL International Limited has been organising meetings with various Industry Groups so that the import contracts which are finalised, are need-based and realistic. They have also been maintaining close liaison with Hindustan Steel while concluding import contracts with a view to liquidating the existing stocks.

6.32. The activities of the SAIL International Limited during 1974-75 resulted in a net profit of Rs. 11.25 lakhs.

6.33. The Committee note that SAIL International Ltd. has been incorporated with effect from 10th June, 1974 to coordinate the export and import business and during 1974-75 exports were to the extent of 52,135 tonnes valued at Rs. 1092.73 lakhs as against 36,652 tonnes valued at Rs. 462 lakhs in 1973-74. The Committee note that Government recognised the need for organising steel exports in a balanced way and made SAIL International Ltd. as the canalising agency not only for exports but also for imports so that available exports market intelligence and bargaining strength could be properly integrated under one umbrella. During 1974-75 it is stated that SAIL processed 87 export applications besides orders for exports of billets, slate bars and rods, rails, pig iron etc. to Iran, Turkey, Sri Lanka, Bangladesh and Kenya to the tune of Rs. 58 crores. As a canalising agency for imports orders worth Rs. 18.23 crores have been released. The activities of SAIL International Ltd. during 1974-75 resulted in net profit of Rs. 11.25 lakhs. The Committee would like to watch the performance further.

6.34. The Committee need however hardly stress that the SAIL International Limited should organise its activities in such a way as to maximise the exports and minimise the imports. As the price of steel in the international market is rising and great development programmes requiring steel are under way in petroleum producing countries, it should be possible for SAIL to effect greater exports to those potential markets of great promise. The Committee need hardly stress that every care should be taken to keep the expenditure on SAIL International to the minimum so as to service the exports and imports at most competitive rates.

## VII

### MONITORING AND EVALUATION

7.1. The information system required towards the monitoring and evaluation of performance had been decided at a Conference of Chief Executive held on March 20-22, 1974. The broad outlines of the Management Information comprise daily and fortnightly reports covering production, despatches and stocks; monthly reports covering production vis-a-vis targets set, comparison of performance with that of the same month of the previous year, constraints, profit and loss position, and cash flow statements. The quarterly report cover production performance and constraints thereto including industrial relations situation; profit and loss position; and cash flow statement. All these are to be reviewed monthly at a meeting to be presided over by Chairman, Steel Authority of India Limited.

7.2. Explaining the system role of Internal Control in Steel Authority of India Ltd. and its subsidiaries the Department of Steel, in a written reply, stated that there was a fairly well defined system of Internal Control which had been developed over the past two years to oversee the functions of the subsidiaries in the production, financial, commercial, personnel, vigilance and other areas. The existing system, essentially comprised periodical reports in selected areas, follow-up action at various levels and monthly reporting to Board as follows:—

#### (a) INTERNAL CONTROL—PRODUCTION

7.3. Principally, the internal control in production consisting of the following three steps:—

- (i) Target fixation;
- (ii) Monitoring|evaluation by exception. The subject for monitoring as well as the frequency depended on the priority of the problem and is liable to change and correction from time to time.
- (iii) Re-assessment of goals on the basis of evaluation.

7.4. During the past two years (1972-73, 1973-74) of its operation SAIL instituted internal control in the following areas:

- (i) Supply of important inputs, namely,

- (a) coking coal;
- (b) power; and
- (c) rail transport.

7.5. On coking coal, in view of the availability being lower than the requirement, SAIL had to make allocation between various Steel Plants (including private sector) and monitor the movement. This monitoring was done to start with on a monthly basis and was later evolved on weekly and from the period of the All-India Railway Strike on daily basis. The coordination with the Railways required for this purpose was done at the field level at Calcutta through the monitoring group of SAIL located there as well as at the headquarters level at Delhi with the Railway Board.

7.6. In consultation with producers and railways, SAIL worked out, on yearly basis, complete linkage of major raw materials with the sources. Deviations from the linkage caused by various reasons were coordinated with the railways with a view to seek short-term relief at particular plants in case of difficulty.

7.7. With regard to power supply similar coordination was done with the utilities namely DVC, OSEB and others and with CWPC at Delhi.

7.8. The production of the plants was monitored at SAIL level on a daily basis. Daily control Reports and ten-day review was also sent to the Minister of Steel. In addition, Director (Technical), SAIL visited Steel Plants every month|alternate months for discussing outstanding problems with a view to finding solutions. The SAIL Board reviewed the production at the subsidiaries during its meeting generally held every month.

#### (b) INTERNAL CONTROL—FINANCE

7.9. Periodical reports from the subsidiaries were obtained in the following areas with the object of exercising internal control.

- (i) Funds availability statement indicating the expected receipts and payments during the period . . . . . Monthly
- (ii) Capital Expenditure Progress Statement giving details of expenditure under groups as included in the approved capital budget of the year . . . . . Monthly
- (iii) Profits & Loss Statement . . . . . Monthly
- (iv) Working Capital Statement giving detailed break-up of inventories of stores and spares, stock in trade and Sundry Debtors . . . . . Monthly
- (v) Cost Variance Statement giving a comparison of the actual costs with standard costs . . . . . Monthly

- (vi) Summary of Working Results immediately after end of the month . Monthly
- (vii) Quarterly Progress of Capital expenditure for each approved scheme . Quarterly
- (viii) Physical progress of Capital Expenditure Schemes giving progress of work carried out and work yet to be completed . . . . . Quarterly

7.10. These reports received from the subsidiaries were analysed in depth to locate the sensitive areas so that corrective action could be initiated. Wherever deficiencies were noticed, the same were taken up with the subsidiaries with a view to clarify the position.

7.11. The working results of the subsidiaries were monitored every month and the same reported to the Board of Directors of SAIL.

7.12. The progress reports on capital expenditures received from the subsidiaries were also closely scrutinised to watch the progress of expenditure as well as the progress of work and to co-relate the same. These were also periodically reported to the Board.

7.13. In addition audit manual for SAIL had been compiled and the same has been brought into use with effect from May, 1974.

#### (c) INTERNAL CONTROL—COMMERCIAL

7.14. In this connection the following reports were obtained from Sales Offices:

##### 1. Hindustan Steel Limited

1. Monthly: Production & Despatch performance—Category-wise, plant-wise and saleable stock at the end of the month category-wise.

2. Monthly: Sales Value—Home despatches Plant-wise, stockyard sales and export sales, sale outstandings, stockyard sales and stocks, profit and loss, import arrivals, deliveries, sale value and stocks.

3. Monthly: On imports details of release Orders received, orders placed, arrivals, disposal category-wise for imported materials, sale value and stocks.

4. In addition reports on monthly category-wise production, despatch and stock, stockyard-wise sales and stock and total sale value are also obtained from TISCO and IISCO.

7.15. In addition to these general reports the following are specifically monitored from all the producers fortnightly:—

1. Despatches of steel, Total: Director in customers, for stockyards and to ports for export and plant-wise.
2. Stockyard Operation—Receipts, Deliveries and Stocks at the end of the period.
3. Point-wise delivery/stock position in stockyards.
4. Import Operation—stocks at the beginning of the period receipts deliveries, High Seas, ex-yard and stocks at the end of the period.
5. Sales Value—Plant Sales, stockyard, sales export sales, import sales and overdue payments at the end of the period.
6. Stocks of steel in perspective—at Plants, at stockyards and imported material.
7. Category-wise stocks of steel at Plants.

7.16. Performance statements against targets are prepared fortnightly and submitted to Chairman and Directors of SAIL.

#### INDUSTRIAL RELATIONS, PERSONNEL AND VIGILANCE

7.17. Though Industrial relations is essentially a matter to be handled by plant managements, there was, however, a close liaison between the Personnel Department and the subsidiary units on important matters were covering the field of industrial relations. These were generally dealt with:

- (a) If they related to industrial problems, in the Joint Negotiating Committee.
- (b) If these were specific problems of special significance, by the plant management acting in a close consultation with the personnel Directorate.

7.18. It was ensured that the employment of scheduled castes and scheduled tribes was in accordance with Government directives.

7.19. The Vigilance Organisation has been strengthened and periodical reports were received on important matters covering this area.

## RESEARCH AND DEVELOPMENT

7.20. Reports about Research and Development which are aimed at improvement of quality, improving the process and finding out new processes. These are sanctioned by the Headquarters of SAIL and appropriate assistance rendered to the units concerned, and other matters were being submitted on a quarterly basis.

7.21. Similarly, for construction, a report is being received on a monthly basis in the case of important construction activities.

7.22. In addition, the following items are monitored and furnished to the SAIL Board monthly:

1. Supply of steel to the economy-source-wise, cumulative to the month this year and last year.
2. —do— Category-wise.
3. Monthly trends in total steel supply to the economy from various sources.
4. Monthly-trends in total iron and steel stock at the Plants.
5. Monthly trends in the market prices of selected items of Steel.

7.23. In this connection the Chairman, SAIL stated during evidence that,—

“We have got a list of various statements; we obtain monthly or quarterly statements and co-ordination is maintained at the officers’ level with other agencies and it is working well. We improve upon the system or modify it as and when the need arises. Obviously there cannot be modifications monthly, but as we go along if we find that modification are necessary, we introduce them. Those modifications are primarily linked to problems that arise. In 1973-74 coal and power were problems and there had to be modification in respect of monitoring these two inputs.”

7.24. The Committee desired to know the nature of the control exercised by SAIL to see that the powers delegated to the subsidiaries were not abused or misused. The Chairman, SAIL stated that if there was abuse of power, they took action. No major case of abuse or misuse of powers had come to their notice. Reports whether anonymous or otherwise were examined at appropriate level and action taken thereon.



7.25. Asked if there was a procedure of reporting such cases to the Board, the Chairman, SAIL replied in the affirmative and added that if there was a case of such a nature, it went to the Board. But if it was within the local management, action was taken at that level.

7.26. It was added that very strict action was taken on any matter which was brought to notice regarding corruption practice or abuse of power.

7.27. The Committee note that, at the conference of Chief Executives held on March 20—22, 1974, the information system towards the monitoring and evaluation of performance of subsidiaries of SAIL had been decided. The broad outlines of the new system comprise daily and fortnightly reports covering production, despatches and stocks, monthly reports covering production vis-a-vis targets, comparison of performance with that of the same month of the previous years, constraints, profit and loss position and the cash flow statements; the quarterly reports cover production performance and constraints thereto including industrial relations situation; profit and loss position and the cash flow statements, the existing system essentially comprised periodical reports in selected areas, follow up action at various levels and monthly reporting to Board.

7.28. The Committee also learn that SAIL monitors the movement of coking coal and regular co-ordination is maintained with the Railways for the movement of raw materials and with Damodar Valley Corporation Orissa State Electricity Board and others and with CPWC at Delhi for the supply of power.

7.29. The Committee have been informed that the production of the plants is monitored at SAIL level on a daily basis. Daily control report and 10 day reviews are also sent to the Chairman and Minister of Steel. The SAIL Board reviews the productions at the subsidiaries at its meeting held every month.

7.30. Periodical reports from the subsidiaries are obtained with the object of exercising internal financial control and these are analysed in depth to locate the sensitive areas so that corrective action can be initiated. The working results of the subsidiaries were monitored every month and the same reported to the Board of Directors of SAIL. An Internal Audit Manual for SAIL had been compiled and the same had been brought into use w.e.f. May, 1974.

7.31. With regard to internal control of commercial activities, the Committee are informed that the SAIL is getting periodical reports

on production and despatch performance, plant-wise sales value of home despatches, stockyard operations, import operations, stocks of steel etc. from all the producers. These are tabulated and submitted to Chairman and Directors of SAIL. The Committee also learn that supply of steel to the economy-source-wise and category-wise monthly trends in total iron and steel stock at the plants and monthly trend in the market prices of selected items of steel are being monitored and put-up to the SAIL Board monthly. Similarly monthly reports are received from the plants in regard to important construction activities.

7.32. The Committee note that in addition to general reports, the special monitoring is done from the fortnightly reports of the producers in respect of items like despatches of steel, stockyard operations, point-wise delivery and stock position, import operations, sales-plant sales, stockyard sales, export sales, import sales-etc., stocks of steel in perspective at plants at stockyards and imported materials. The Committee have also been informed that close liaison is maintained between personnel department of SAIL and the subsidiaries on all important matters in the field of industrial relations, which are generally dealt with in the Joint Negotiating Committee and by the plant management acting in close consultation with the Personnel Directorates. Reports on research and development are also received on a quarterly basis and there are scrutinised by the SAIL and appropriate assistance rendered to the units.

7.33. While the Committee note that SAIL had a management information system and system of internal control to over-see the functions of production, financial, commercial, personnel, vigilance and other areas, the Committee recommend that the working of the information system and the internal control should be subjected to a critical and continuous review so that the submission of these reports are meaningful and are such as to enable SAIL to plan its strategies of production for best utilisation of the existing capacity, determine priorities and pinpoint constraints in the achievement of the production targets so that appropriate and timely action could be taken in these matters. The Committee also suggest that in order that the system be effective and a realistic evaluation of the performance may be done, it is necessary that, on the basis of experience gained, a suitable proforma for getting on these reports should be evolved so that information on several aspects of the working of the subsidiaries is obtained on a uniform basis for specific periods and at regular intervals. The Committee would also like SAIL to ensure that these reports do not become a mere for-

mality with the passage of time and that they are received regularly and in time and systematically and critically analysed with particular reference to priorities of planning production achievements, vis-a-vis the targets, a constraints in the matter of achieving production by way of movement of raw materials, supply of power, maintenance of plant and machinery, lack of adequate inventories, ores, despatches, sales and other activities so that corrective action is initiated in time and the subsidiaries are afforded the necessary assistance to overcome these constraints and improve the performance. Specific reports about the cost of production and productivity should also be made out and brought to the notice of Board of Directors with a view to having effective control on costs and improving productivity.

7.34. The Committee also recommend that a critical comparative evaluation of the performances of the plant may be made so that the contributory factors which were responsible for better performance in any plant can with advantage be utilised in the others.

## VIII

### NEW SCHEMES

#### (i) *Introductory*

8.1. While setting up Steel Authority of India Ltd., Government had authorised SAIL to sanction capital expenditure including new schemes upto Rs. 10 crores where the funds could be found within the budget allocation.

It was also decided that all schemes that cost more than Rs. 10 crores would come up to Government for examination by the Public Investment Board and specific sanction. However, in order to ensure that all the proposals for capital expenditure estimated to cost Rs. 10 crores and above which were to be financed directly from Government funds were examined with due regard to principles of financial prudence, availability of resources and priorities indicated in the National Plan, these proposals would first be examined by an *Ad hoc* Committee of Experts to be set up by SAIL. The *Ad hoc* Committee would be associated with the examination of these proposals and schemes at all important stages. The *Ad hoc* Committee would be presided over by the Chairman of SAIL or in his absence by the Technical or Finance Director and would include among others, as members, nominees of the Ministry of Finance and Planning Commission.

#### (ii) *New Schemes Costing upto Rs. 10 crores*

8.2. In pursuance of the powers delegated by Government to SAIL to sanction capital expenditure including new schemes upto Rs. 10 crores, SAIL's Committee for implementing this decision had approved certain projects/schemes. The present position in regard to each of the projects/schemes is indicated below:—

| Sl. No. | Scheme   | Total Estimated cost Rs. Crores | Date of approval by SAIL | Purpose & present position of the scheme/Project  |
|---------|--|---------------------------------|--------------------------|---|
| 1       | 2  | 3                               | 4                        | 5   |
| 1.      | Experimental Non-coking coal dust injection into blast furnace No. 3 of Bhilai Steel Plant.                      | 4.13                            | 16-8-1973                | Research and Development Project to reduce requirements of Coke and consequently of metallurgical coal for Blast Furnace. Since the coal dust injection involves modifications to Blast Furnaces which can be done only during capital repairs it is now proposed to implement this in Blast Furnace No. 2 at Bhilai Steel Plant, during its capital repairs in 1975-76. The Detailed Project Report has already been updated by the Soviet Consultants. Likely to be implemented by 1976-77. |
| 2.      | Expansion of Central Engineering Ancillary shops to cater for 4 M.T. expansion—Bhilai Steel Plant.               | 5.41                            | 16-8-1973                | Part of 4 M. T. stage expansion at Bhilai. Advance action pending finalisation and approval of DPR estimate of 4.0 MT expansion. Civil Engineering works and ordering of equipment are on hand. Expected to be completed by end of 1976.  |
| 3.      | Sanction to Soviet organisation for supply of data recommendation and design of 3600 mm Mill—Bhilai Steel Plant. | 4.13                            | 16-8-1973                | Part of 4 M.T. stage expansion at Bhilai. Documentation for area I have already been received. For area II documentation are expected to be received by end of 1975.  |
| 4.      | Additional requirement of Rail Cranes—Bhilai Steel Plant.  | 1.14                            | 16-8-1973                | To meet the requirements of Plant service and maintenance department. Orders have been placed on M/s Braithwait & Co. and deliveries are expected from June 1976 onwards.   |

|     |  |                                     |            |   |
|-----|--|-------------------------------------|------------|---|
| 5.  | Sanction for payment to Soviet organisation for submission of Technical Project for the equipment of the Continuous Casting Complex 4.0 M.T.—Bhilai Steel Plant. | 0.42                                | 16-8-1973  | This is part of expansion to 4 Million Tonnes. Information is being received from the USSR.   |
| 6.  | Procurement of 14 Locomotives—Bhilai Steel Plant   | 4.2                                 | 30-10-1973 | Replacement of existing locomotives. Letter of intent has been placed on Diesel Loco Works, Varanasi in Sept., 1973 Deliveries are expected at the rate of 2/3 loco per month from April '75. The allocation between different steel plant has been made by SAIL. |
| 7.  | Advance action on Meghahatuburu Iron Ore Project—National Mineral Development Corporation  | 5.00                                | 30-10-1973 | Advance action for meeting the iron ore requirement of Bokaro Steel Plant at the 4.0 M.T. Stage. About 1.5 crores has been spent so far.  |
| 8.  | Revised Project Estimates for Dugda-I coal washery—Bharat Coking Coal Limited.   | original<br>6.85<br>Revised<br>6.96 | 30-10-1973 | Project already completed. Approval of revised cost estimates pending.  |
| 9.  | Revised Project Estimate for Dugda-II Coal Washery—Bharat Coking Coal Limited.   | original<br>7.24<br>Revised<br>8.22 | 30-10-1973 | Project already completed. Approval of revised cost estimates.  |
| 10. | Augmentation of water supply for Bokaro Steel Plant and city, from 12 MGD to 24 MGD for drinking purpose and provision for fire fighting.                        | 1.02                                | 3-4-1974   | Important welfare measures and for safety of plant.   |
| 11. | Rebuilding of coke oven battery No. 2 of Durgapur Steel Plant.   | 6.65                                | 3-4-1974   | Rebuilding of existing asset. Tenders on award of work are under scrutiny.  |
| 12. | Advance sanction of funds for the civil construction work of Salem Steel Ltd. to be executed by HSCL.  | 9.10                                | 3-4-1974   | Advance action for construction of Salem Steel Limited Stage I Phase I (Subject to availability of funds)   |
| 13. | Award of the contract for structural fabrication and erection work of Salem Steel Limited to HSCL.   | 4.10                                | 3-4-1974   | Advance action for construction of Salem Steel Limited Stage I (Part I). (Subject to availability of funds).  |

(iii) *New Schemes/Projects Costing above Rs. 10 crores.*

8.3. As per Government's direction an *Ad hoc* Committee of SAIL was constituted on March 29, 1973 to consider new schemes/projects costing above Rs. 10 crores. The justification and present position. for each of the schemes/project is given below:—

| Sl. No. | Scheme | Total Estimated cost (Rs. in crores) | Expenditure incurred upto 31-7-75 (Rs. crores) | Estimated time of completion | Remarks | Overall profitability | Contribution to increased production | Foreign Exchange Saving (Estimated) |
|---------|--------|--------------------------------------|--|------------------------------|---------|-----------------------|--------------------------------------|-------------------------------------|
| 1       | 2      | 3                                    | 4  | 5                            | 6       | 7                     | 8                                    | 9                                   |

*A. Schemes already sanctioned by Government prior to formation of SAIL-Revised Estimates*

|    |                                   |                                 |       |                     |  |   |  |                                      |
|----|-----------------------------------|---------------------------------|-------|---------------------|--|---|--|--------------------------------------|
| 1. | Second Sintering Plant (BSP)      | 30.31 (Rs. 6.38 crores as F.E)  | 14.33 | Dec., 1977          |  | Rs. 2.366 crores net saving/year.   | 0.18 MT Hot Metal/P.A. extra Produced.                                 | This will maximise steel production. |
| 2. | Dalli Mines (BSP)                 | 28.64 (Rs. 0.40 crores as F.E.) | 20.27 | June, 1977          |  | Reduction in production cost Rs. 5.48 tonne or Rs. 1.26 crores/year from 3rd year of operation. | Dalli & Rajhara Complex forms the raw material complex for 4 MT stage. | This will maximise steel production. |
| 3. | Sixth Blast Furnace Complex (BSP) | 45.475                          | ..    | Completed Jan. '72  |  |   | It is part of 4.0 MT Expansion of BSP                                  | ..                                   |
| 4. | 1.8 MT Expansion (RSP)            | 158.73                          | ..    | Completed Sept. '69 |  |   | To increase Steel production in the country                            | ..                                   |

| 1  | 2                                 | 3                             | 4                      | 5        | 6 | 7  | 8  | 9  |
|----|-----------------------------------|-------------------------------|------------------------|----------|---|--|--|--|
| 5. | Donimalai Iron Ore Project (NMDC) | 29.81 (Rs. 2.24 crores as FE) | 20.33 (As on 30-6-75)] | Dec. '76 |   | Donimalai Complex (both Mine & Pellet Plant) working at 90% capacity will have a loss of Rs. 1.70 lakhs per year after paying Rs. 1.51 crores export duty on lump ore. | Export oriented production per annum at 90% capacity. Pellets: 1.80 M.T. | Estimated export earning per annum Rs. 33.8 crores at 90% capacity of Mine & Pellet Plant. |

**B. New Schemes approved by Ad-hoc Committee of SAIL and SAIL Board and applied to Govt. for final approval/approved**

|    |                                      |                                |      |             |  |   |  |                           |
|----|--------------------------------------|--------------------------------|------|-------------|--|---|--|---------------------------|
| 1  | Donimalai Pelletisation Plant (NMDC) | 33.63 (Rs. 8.33 crores as FB)  |      | No action   | Approved by Ad-hoc Committee on 30-10-73. Approved by SAIL Board on 18-6-74. Applied to Govt. on 26-6-74. Govt. have asked SAIL to re-examine estimates. |   |  |                           |
| 2. | 8th Coke Oven Battery (BSP)          | 11.55 (Rs. 1.78 crores as FE.) | 6.54 | March, 1976 | Approved by Govt.  | A Standby for the repair of the existing batteries.     | ..   | ..                        |
| 3. | Refractory Plant at Bhilai (BSP)     | 28.4                           | 0.15 | Oct. '77    | Approved by Ad-hoc Committee on 3-4-74. Approved by SAIL Board. Applied to   | Cumulative cash surplus as at 20th year of operation is | To meet BSP's requirement at 4.0 MT Expansion, | Rs. 13.8 crores per year. |



|   |  |  |  |
|---|--|--|--|
| Govt. on 26-6-74. PIB has cleared it on 5-7-1975.   | Rs. 30.5 crores.                               | Will avoid loss in production due to shortage of power at RSP. |  |
| Approved by <i>Ad-hoc</i> Committee on 18-2-74. Being examined in consultation with Planning Commission before being put up to SAIL Board.  | Rs. 11.99 crores/year.                         | Defence oriented   | Rs. 11.99 crores year for 100% capacity utilisation. |
| Applied to Government on 21-12-73. Could not be accommodated in the year 1974-75. Re-examined by <i>Ad-hoc</i> Committee in its meeting held on 7-8-75. Since the Deptt. of Defence Production had indicated somewhat lower demand projections the decision on the project has been kept in abeyance awaiting firm demand projection of the Deptt. of Defence Production. | Rs. 17.31 crores cash generated over 15 years. | To meet IOC demand   | Rs. 11.2 crores.                                     |
| Approved by Govt.   | Approved by Govt.                              |  |  |
| 4. Augmentation of in Plant generation on for RSP   | 42.00  |  |  |
| 5. Special Steel Plate Plant (RSP)  | 35.10 (Rs. 9.01 crores as F.E.)                |  |  |
| 6. Spirally Welded Pipe Plant (RSP)   | Rs. 15.26 (Rs. 7.01 crores as F.E.)            | 8.01   | May, 76  |

| 1  | 2                 | 3   | 4  | 5       | 6  | 7  | 8                               | 9                    |
|----|-------------------|---|----|---------|--|----|---------------------------------|----------------------|
| 7. | C.R.G.O.<br>(RSP) | 50.94<br>(Rs. 15.58<br>crores as<br>F.E.) | .. | 1979-80 | <i>Ad-hoc</i> Committee of<br>SAIL approved on<br>6-7-73. Negotiations<br>for foreign consultants<br>is on hand. | .. | To meet<br>country's<br>demand. | Rs. 38.00<br>crores. |

8.4. As regards the effect of implementation of new schemes/expansions on the overall profitability of the plants, the Chairman, SAIL, stated during evidence that:

“All these schemes which we have drawn up will help to increase the overall profitability. The overall profitability can be broadly in four directions: help to increase straightway production; it may also be an important replacement without which production would fall; the third would be inplant generation like supply of adequate power, etc., for immediate requirements; the fourth would be setting up an entirely new unit like the one at Rourkela where there is need, where the imports be reduced.”

8.5. About financing of new schemes from internal resources he added that:

“When we have an annual budget drawn up, we take into account the internal generation of resources. The internal generation of resources is largely on two counts: one, the total amount of money accruing on depreciation account; the second, the net surplus available. There is always, in the SAIL, a certain amount of internal generation of funds. The Special Steel Plate Plant at Rourkela, for example, would also directly help in saving foreign exchange.”

8.6. The Committee note that Government have authorised the SAIL to sanction capital expenditure including new schemes upto Rs. 10 crores where funds can be found from within the budget allocation.

8.7. The Committee would like SAIL to ensure that the delegation of powers is worked properly and new schemes costing less than Rs. 10 crores are really such as to improve the working of the existing plants or such as will be in the over-all national interest. The Committee suggest that before launching such schemes, the financial viability of each of these schemes should be critically examined and approved by SAIL/Government.

8.8. The Committee also note that SAIL has so far approved under these delegated powers 13 schemes each costing less than Rs. 10 crores of which two schemes relating to Dugda I and II had

already been completed and the remaining 11 schemes are at various stages of execution. The Committee recommend that SAIL should monitor the progress of execution of these schemes to ensure that these projects are completed not only within the time schedule but also within the capital cost already sanctioned for them.

8.9. The Committee are informed that there are five schemes costing more than Rs. 10 crores each which have already been approved by Government before formation of SAIL, two of which have been completed. In addition, there are seven more schemes two of which have been approved by Government and rest awaiting approval of the Government. The Committee find that one of the schemes—Donimalai Pelletisation Plant, the estimated cost of which is Rs. 33.03 crores would work in a loss of Rs. 1.7 lakhs per year after paying Rs. 1.5 crores export duty if the project were to work at 90 per cent capacity. They recommend that before a final decision is taken in the matter, the economics of the project should be carefully gone into so that investment on the project does not result in any loss. The Committee also find that two schemes namely augmentation of in-plant generation for Rourkela Steel Plant CRGO (RSP) which have been approved by the Ad hoc Committee more than one year back are yet to be finally approved by the SAIL Board. The Committee see no reason why it has taken SAIL more than one year to examine these schemes and take a final decision.

8.10. The Committee are informed that the schemes when implemented would improve the over-all profitability of the plants. Some of them would increase production straightaway or bring about important replacement, without which production would fall or would involve in-plant generation like supply of power, etc. for immediate requirements and some other would obviate or minimise imports and save foreign exchange. The Committee recommend that SAIL/Government should critically go into the economic viability of each of the projects and also ensure that the implementation of these projects would actually improve the working of the existing plants and take a decision in the best interest of the organisation and also determine inter se priorities for execution of these schemes in the context of its importance to the steel industry and the country as a whole. The Committee would also like SAIL/Government to ensure that once a scheme is taken up for execution after approval, it should be completed within the time and the cost schedule fixed for the project so that the results anticipated of it really accrue and the funds invested thereon are not unnecessarily blocked.

*(iv) Setting up of a Central Workshop for Manufacture of vital spare parts common to the Steel Plants*

8.11. In reply to Unstarred Question No. 1501 dated the 21st November, 1974, the Deputy Minister in the Ministry of Steel & Mines stated that a Committee set up by SAIL to study the problem of supply of spare parts to the Steel Plants had recommended setting up of a Central Workshop for the manufacture of certain medium and heavy range of vital spare parts common to the Steel Plants. He further stated that the Steel Authority of India was taking action for the preparation of a Feasibility Report for the project.

8.12. It was stated in a written reply that MECON had been given the assignment of preparation of feasibility report of the proposed workshop and this report was expected to be received in March, 1975. A decision on the scheme would be taken after the receipt & examination of the Report by SAIL/Government. It was, however, estimated that with the setting up of such a Control Workshop, the import requirement of spares would be reduced from 24 per cent to 15 per cent of the total requirement. This workshop was also expected to ensure better reliability in the supplies.

8.13. In regard to the setting up of a Central Workshop for the manufacture of vital spares common to steel plants, the Secretary of Department of Steel and Chairman, SAIL, stated during evidence that:—

“As far as the feasibility report for the setting up of the Central Workshop is concerned, this matter is still in hand with MECON and we expect this report should be available after about four months or so. The rationale for the concept as to why there should be a central workshop and the reasons for which we commissioned it are basically based on the following reasons. We have today a fairly large, though not very large, metallurgical base in the country, as far as steel is concerned and there is a large consumption naturally even related to this base. So, we were looking both for the present needs as well as for the years ahead. I should say that we strongly felt that some of the important spares should be manufactured by us to reduce, firstly, our dependence on imports and, secondly—and this is probably equally important, if not more important,—that in the process of manufacturing

these spares we will develop skills and capability so that in the years ahead this capability can be of still better service to us when the steel base in the country is enlarged.

The other practical consideration was that at present a fair amount of spares are also bought out indigenously. Some of them would still continue to be bought out. But, in the case of those items which are not mass production items, it is not possible sometimes to get them off the shelf. They would also be manufactured by us. This is the main rationale behind converting this.

8.14. Explaining/the justification for a separate workshop in the presence of two workshops in sister concerns like HEC & MAMCO, the witness added that—

“Firstly, it is not as though all the spares they make will be made here. Secondly, both these workshops are interested, and perhaps rightly so, in seeing that they are engaged not merely in manufacturing spares but basic capital machinery items for which they have been really set up.”

8.15. Asked whether it would not be possible to diversify production in HEC itself, where capacity utilisation was only 61 per cent, the Secretary, Department of Steel stated that—

“Some of the spares will be made there but basically HEC and MAMC would be engaged in the manufacture of machinery or complete parts, not recurring spares. There will be medium size, small size and heavy size. Some of these could be made in the HEC when it is created. It is not as if it can be ear-marked only for medium size. An occasion may arise for heavy size spares and if a suitable occasion arises we may do it. The main point is that we should not allow some idle capacity to remain and still commission newer capacity. There is no doubt that the productivity in the HEC has got to increase and will increase. But the important thing is that HEC is geared really to manufacture whole plants and equipments. Maybe, certain types of spares also. Even when we set up a Central Workshop, we will not make hundred per cent spares. The point is, we have to allow the skills the national skills, to develop in a wide manner. The need for spares is not merely what we produce today, equiva-

lent to six to seven millions; the skill we generate must also look to the needs of the next five to ten years. Therefore, when we are visualising a Central Workshop, neither are we shutting the door to medium and small scale sectors manufacturing spares, nor are we shutting the door to HEC. As far as Central Workshop is concerned, it is not only a question of our needs for spares in the immediate future; we have also to develop skills and capability for still larger spares in the years ahead. Development of spare parts manufacture is not an easy thing."

8.16. Asked about the estimated cost of the project, the witness added:—

"The estimated cost, about a year ago, was Rs. 20 crores. It may now be more than that. H.M.T. can also supply certain types of machines which we ourselves will require."

8.17. Asked if the decision to set up Central Workshop could not be taken five years earlier the Chairman, SAIL, stated that:

"We have felt the need and we think it is a right thing and we should go ahead. That is why, feasibility study has been commissioned. That will be considered and if we feel the need, we will go for a full detailed report. Government will have to approve of it. The decision at this stage has been that in the SAIL, having studied the problem, we feel the urgent need for it."

8.18. It has been subsequently stated that MECON prepared the feasibility report and submitted the same to SAIL in July-Aug. 1975. They also recommended that centralised facilities for the manufacture of certain types of spares for the Steel Plant. The report, it is stated, has since been examined and the matter is still under consideration.

8.19. The Committee note that there is a proposal for setting up a central workshop to produce certain medium and heavy range of vital spare parts common to the steel plants. The intention is that, besides reducing dependence on imports for these spares, in the process of manufacturing these spares, it would be possible to develop skills and capabilities which could be of better service in the years ahead when the steel base in the country is enlarged. The other consideration is that, in the proposed workshop, spares which are not mass production items and cannot sometimes be got off the shelf would also be manufactured.

8.20. The Committee were informed that the estimated cost of the proposed workshop was Rs. 20 crores a year ago and it may be more now. They are also informed that though some of the spares would be made by HMT, HEC, MAMC, these undertakings were basically engaged in manufacture of capital machinery or complete parts and were not producing recurring spares.

8.21. The Committee also find that a feasibility report was prepared by MECON and submitted to SAIL in July-August, 1975 and MECON had also recommended centralised facilities for the manufacture of certain types of spares. It has been stated that the report is still under the consideration of SAIL.

8.22. While the Committee agree that there is need to reduce dependence on import of spare parts required by the steel plants and for developing indigenous capacity for production of spares to meet the future needs of the steel industry, the Committee feel that Government and SAIL should, before taking a decision on the setting up of a workshop, take stock of the existing idle capacity in machine and machine tool manufacturing units in public sectors like Hindustan Machine Tools Ltd., Heavy Engineering Corporation, Mining and Allied Machinery Corporation, etc. and also in the medium and small scale sectors to see how far such available spares capacities could be advantageously diversified for the manufacture of spare parts for the steel plants. In the opinion of the Committee such diversification would not only result in saving of capital investment of more than Rs. 20 crores by SAIL in the establishment of workshops solely for the manufacture of spare parts but would also help in full utilisation of the available capacities in other public undertakings.

#### Expansion of Alloy Steel Plant

8.23. According to the Project Report, the Alloy Steels Plant, Durgapur was to have an initial capacity of 80,000 tonnes of Steel Ingots to be rolled into 48,000 tonnes of saleable products per year. It was finally decided early in 1963, on the recommendations of the Consultants, to raise the initial capacity of the steel plant from 80,000 tonnes of steel ingots to 100,000 tonnes of steel ingots and about 60,000 tonnes of finished steel. The product mix corresponding to this capacity was as follows:—

|                             |              |
|-----------------------------|--------------|
| (1) High Speed Steels       | 2,250 tonnes |
| (2) Carbon Tool Steels      | 9,500 tonnes |
| (3) Alloy Tool & Die Steels | 3,600 tonnes |



|  |                      |
|--|----------------------|
| (4) Alloy Constructional steel (including case hardening steels) | 23,400 tonnes        |
| (5) Ball Bearing steel   | 3,500 tonnes         |
| (6) Die Block  | 750 tonnes           |
| (7) Stainless steel  | 18,000 tonnes        |
| TOTAL  | <u>61,000 tonnes</u> |

8.24. The plant has, however, been finding it difficult to achieve this product mix. Although ingot tonnage output visualised could perhaps be achieved, there were serious doubts regarding practicability of achieving the grade-wise and section wise output due to limitations in the bar mill, 2 Hi mill and Sondzimar mill. In the light of present experience the following product mix has been considered to be realistic:—

|                                 | (Tonnes per year)     |               | Ball<br>Bearing |
|---------------------------------|-----------------------|---------------|-----------------|
|                                 | Realistic<br>capacity | As per DPR    |                 |
| (1) Die Block                   | 750                   | 750           |                 |
| (2) High Speed Steel            | 2,250                 | 2,250         |                 |
| (3) Alloy Tool Steel            | 2,200                 | 3,600         |                 |
| (4) Stainless steel             | 13,000                | 18,000        |                 |
| (5) Alloy Constructional Steel  | 29,000                | 23,400        |                 |
| (6) Carbon Constructional Steel | 9,500                 | 9,500         |                 |
| Total finished products         | 56,700                | 57,500        | 3,500           |
| Or                              | 57,000                |               |                 |
|                                 | 5,000                 |               |                 |
| TOTAL                           | <u>62,000</u>         | <u>61,000</u> |                 |

8.25. At present the primary blooming mill is working only in one shift. The mill has a capacity of 250,000 tonnes to 300,000 tonnes if worked on three shifts. From the very beginning, the intention has been to expand the plant and increase its capacity to 300,000 tonnes of ingots which will include also items not going through the blooming mill such as some of the fogged products. Financial provision was made in the Fourth Plan for expansion of the plant. In a steel plant the unutilised capacity of a blooming mill is not considered as an idle capacity. It is only utilized when a decision is taken to expand the plant.

8.26. The Chairman, Hindustan Steel Limited authorised M/s. M. N. Dastur & Co. to conduct a market survey for alloy steels

demand in June, 1967. The Consultants in their report submitted on 13-5-68 suggested that:—

- (i) Tool and high speed steel production can be increased at ASP by 5000 to 6000 tonnes, bulk of which in strip form;
- (ii) ASP could increase production of construction steel from about 25,000 tonnes to about 90,000 tonnes including 10,000 tonnes of ball bearing steel;
- (iii) ASP needs consideration for increasing the output of alloy spring steels and also take up production free cutting steels, 10,000 to 12,000 tonnes in each categories;
- (iv) Out-put of stainless steel in ASP needs to be increased by 10,000 tonnes.

8.27. Besides the above, they suggested increasing the facilities for production of die block, wire drawing facilities etc.

8.28. General Manager, Alloy Steels Plant as head of a study group formed by Hindustan Steel Limited and also as head of a sub-committee of the Steering Group, appointed by the Ministry, suggested:

- (i) Extension of the range of certain products and addition of certain finishing facilities to match the market demands;
- (ii) Initiation of action for setting up of facilities for production of thinner gauge stainless steel sheets and plates and expansion of steel melting capacities;

8.29. The product mix was further discussed in Head Office, Ranchi on 31st March, 1971 with the Chairman, HSL. The following material balance was drawn up in the meeting:

| Product Description   | Through Primary Mills |                  | Through Forge Shop |                  | Yield | Total Ingot |
|-----------------------|-----------------------|------------------|--------------------|------------------|-------|-------------|
|                       | Ingot Equivalent      | Ingot Equivalent | Fin.               | Ingot Equivalent |       |             |
| Die Block             |                       |                  | 3,100              | 5,000            | 60%   | 5,000       |
| High speed            |                       |                  | 7,000              | 14,000           | 50%   | 14,000      |
| Alloy Tool            |                       |                  | 7,500              | 15,000           | 50%   | 15,000      |
| Stainless             | 43,000                | 86,000           |                    |                  | 50%   | 86,000      |
| Alloy Constructional  | 80,300                | 115,000          | 1,300              | 2,600            | 50%   | 117,600     |
| Carbon Constructional | 27,500                | 39,000           |                    |                  | 70%   | 39,000      |
|                       | 150,800               | 240,000          | 18,900             | 36,600           |       | 276,600     |
|                       |                       |                  |                    | for Defence      |       | 20,000      |
|                       |                       |                  |                    |                  |       | 296,600     |

8.30. Discussions took place in March, 1971 at Government level on this question and it was decided that the Central Engineering & Designs Bureau of Hindustan Steel Limited (new MECON) should be asked to prepare a DPR of the Alloy Steels Plant, Durgapur from its existing level of 100,000 tonnes of ingots to 300,000 tonnes of ingots. (180,000 tonnes of saleable alloy steel). Out of this 20,000 tonnes might be earmarked for meeting Defence requirement, about 30,000 tonnes for the forge Shop and the balance 250,000 tonnes for rolling into finished product, out of which stainless steel plates/sheets could be in the region of 60,000 tonnes. The product mix for the additional quantity of hot metal available could be left to be determined in the next phase of expansion.

8.31. After this, there were a number of discussions on the possible product mixes for the expansion of the Alloy Steels Plant with reference to all relevant considerations, including the decision to set up a plant at Salem to produce Alloy Steel, flat products. It was finally decided in August, 1972 that the product mix of the scheme of expansion of the Alloy Steels Plant should be as follows and that the Central Engineering & Design Bureau should be asked to prepare a detailed project report on this basis:—

| Product  | Existing          | Capacity                 |
|--|-------------------|--------------------------|
|  | capacity          | after expansion          |
|  | (tonnes per year) |                          |
| (i) Die Block . . . . .  | 750               | 4000                     |
| (ii) High Speed Steel . . . . .                                    | 2250              | 4000                     |
| (iii) Alloy Tool Steel . . . . .                                   | 2500              | 7500                     |
| (iv) Stainless Steel . . . . .                                     | 13000             | 13000                    |
| (v) Alloy Constructional and carbon constructional steel . . . . . | 38,500            | *176,350                 |
|  | 57,000            | 204,850<br>or<br>205,000 |

8.32. A view was subsequently expressed that the product-mix decided upon for the expansion of the Alloy Steels Plant would still not make the plant viable and that marginal advantage derived from

\*Of this 74,500 tonnes of Alloy and Carbon Constructional Steel would be for production of seamless tubes.

the manufacture of seamless tubes would be more that off set by the losses sustained in manufacturing alloy constructional and carbon constructional steel. It was also suggested that the only way to make the plant a viable unit was to increase its capacity for production of stainless steel sheets and stripes. Government, therefore, decided in November, 1972 that a second look should be taken on this whole question with reference to the following points:—

- (i) Whether ASP, Durgapur can be made a viable Unit with the present product mix and the one decided upon earlier;
- (ii) The scope and extent of demand of stainless steel by 1985 and alloy constructional steel by taking into account the "Nonickel" varieties of stainless steel;
- (iii) whether in the light of the above factors, it is necessary to modify the above product mix on technical or economic considerations with regard to constructional and stainless steel having regard to the capacities available or likely to come up in the country and if so;
- (iv) What the product mix for expansion to 3,00,000 ingot tonnes capacity on this basis should be.

This work was remitted to a departmental group of officers.

8.33. The Group submitted its report in May, 1973. The Group's recommendation is for the following product mix after expansion.

|  |  |
|--|--|
| (i) High speed steel   | 4,000 tonnes   |
| (ii) Die Steels  | 4,000 tonnes   |
| (iii) Alloy Tool Steels  | 4,000 tonnes   |
| (iv) <i>Stainless Steel</i>  |  |
| (a) Bara and rods  | 3,000 tonnes   |
| (b) Plates and sheets  | 5,000 tonnes.  |
| (c) Cold Rolled Strip  | 35,000/40,000 tonnes<br>(30,000/35,000 tonnes CR strips<br>to come from a new CR mill<br>complex).     |
| (v) Alloy constructional<br>Steel and Carbon<br>Constructional Steel | 76,250 tonnes.<br>(which included 54,000 tonnes of<br>bloomes to be processed into<br>seamless tubes). |

8.34. The Group had also recommended that the present capacity of the Plant should first be achieved and that a jobbing-mill should be set up for rolling high alloy steels of about 6-10,000 tonnes per annum capacity, alongwith other balancing facilities. To improve the profitability of the unit as well as to utilise its expertise in the production of stainless steel and to provide another source of stainless steel sheets, in the country, the Group had recommended that a cold rolling mill complex for the production of 30,000 to 35,000 tonnes of stainless steel sheets and strip should be set up as a part of the first phase of expansion itself. To start with, hot rolled strip should be imported and rolled in the complex. Melting and refining facilities could be considered later at the ASP to synchronise with the availability of a hot strip mills as a part of expansion in one of the steel plants namely Durgapur, TISCO or Rourkela. At that stage, the third shift of the blooming mill could be utilised for rolling stainless steel ingots into slabs. With the commissioning of such a cold mill complex, ASP would find it difficult to utilise the existing sheet mill complex for production of stainless steel sheets since the product would be inferior in quality in comparison and considerably more expensive. A detailed study would have to be made about the economics of disposing of the equipment of the handsheet mill complex or alternatively to use it for rolling of steels other than stainless.

8.35. The Group of Experts which examined the product-mix of the scheme of expansion of the Alloy Steel Plant also considered the economics and financial viability of the plant with its present product-mix and after expansion with the different product-mix suggested. The conclusions of the Group are as under:

|  | Rs. in crores. |
|--|----------------|
| 1. Profit/Loss at 82% of the production capacity as accepted by the plant at current selling prices. . . . .   | (+ ) 4.8       |
| 2. Profit/Loss at 100% of the production capacity as accepted by the plant at current selling prices. . . . .  | (+ ) 9.6       |
| 3. Profit/Loss same as at (2) above with prices of stainless steel close to landed cost . . . . .  | (-) 5.12       |
| 4. Profit/loss for the expanded capacity as per the product-mix agreed by Government in September 1972 with selling price as assumed by us in this respect . . . . .           | (-) 13.5       |
| 5. Profit/loss adue to expansion only at current selling prices . . . . .  | (+ ) 1.8       |
| 6. Profit/Loss of the expanded plant with current level of secelling prices except for stainless steel for which prices have been considered close to the landed cost. . . . . | (-) 3.32       |
| 7. Profit/Loss with Seamless Tube Project . . . . .  | (+ ) 5.7       |

Rs. in crores

- |   |           |
|---|-----------|
| 8. Profit/loss with s.s. cold Rolling Mill complex.   | (+ ) 4.27 |
| 9. Total profit/loss with the expansion of the plant including seamless tube project and s.s. cold rolling mill complex and with stainless steel prices close to the landed cost. | (+ ) 6.65 |

It has been added that

the above computations of profitability are for the first year in which the plant attains operation at 100 per cent capacity for its product-mix and 90 per cent capacity of Seamless Tube Project and Stainless Steel Cold Rolling Mill Complex.

8.36. Steel Authority of India Limited is proposing to commission Metallurgical and Engineering Consultants (India) Limited to prepare a pre-investment feasibility study on the expansion of the Alloy Steel Plant on the basis of the recommendations of the Group of Experts. The installation of a jobbing mill was being examined by Hindustan Steel Limited.

8.37. It has been stated that the Ministry of Steel and Mines had taken the view that every effort should be made to improve the position regarding power and industrial relations to increase the production in the plant and that the expansion should be thought of when the production reached about 85 per cent of the capacity of the plant.

8.38. A provision of Rs. 21 crores has been made in the draft Fifth Plan for the expansion of the Alloy-Steels Plant. A separate provision has also been made of Rs. 47 crores for the installation of a seamless tube plant. The scheme of expansion will now have to be considered as a Fifth Plan Scheme in the context of the overall resources available and the *inter se* importance of the various schemes relating to the steel industry.

8.39. The Management of SAIL informed the Committee in a written note that the Report of the Group set up by Government to consider the various alternatives for the expansion of Alloy Steel Plant, Durgapur beyond its present capacity of one lakh ingot tonnes, has been received but no decision has so far been taken regarding the product-mix for the proposed expansion of the Alloy Steel Plant. Setting up a Coke Oven Battery would help in saving foreign exchange. If we do not do that, it would affect our steel production and we would have to import.

8.40. In this connection representative of SAIL stated during evidence that—

“An Expert Group was formed by the Government to study the expansion of the Alloy Steel Plant, and the terms of reference were whether the Alloy Steel Plant could be made a viable unit with the present production, whether the scope and extent of demand of stainless steel and alloy steel by 1985 could be met and in the light of the above factors whether it is necessary to modify the produc-mix on technical or economic considerations with regard to constructional and stainless steel having regard to the capacities available or likely to come up in the country—and what should be the product mix for an expansion to 300,000 tonnes. They have made the study and recommended as to what this plant should produce. Here one of the main items that they have recommended is cold-rolled stainless steel strips and they have recommended a cold-rolling mill. They have said that, for the time being, the cold-rolling mill should be installed at A.S.P.; it should run first with imported hot-rolled strips and later on they could be produced in one of our major steel plants. A provision was made of Rs. 21 crores for installation of a seamless tube plant which could be a part of the expanded Alloy Steel Plant. There is a question on the viability of this project. Different viabilities were worked out with different product mix.”

8.41. In this connection the Secretary of Department of Steel added that—

“Provision has been made for Rs. 21 and odd crores and Rs. 40 and odd crores. It had not been possible to accommodate in the Fifth Plan and, therefore, our effort will be that apart from this our concentration is on the working of the steel plants and to get maximum out of it. I am happy to report that the financial results and productivity in so far as Alloy Steel Plants are concerned have been well. In the month of January it has produced ingot steel to the tune of 105 per cent of its ingot capacity. It is a good sign.”

8.42. It is however seen that during 1974-75 the production of ingot steel in A.S.P. was only 78360 tonnes against the target of

80,000 tonnes and the capacity of 1 lakh tonnes thus indicating the utilisation as 78.36 per cent only.

8.43. The Committee note that in the context of expansion of Alloy Steels Plant the question of the present product-mix and that during expansion was examined by a steering group formed by HSL and later by a sub-committee of the Steering Group appointed by the Ministry. As a result of the examination and a series of discussions from time to time it was decided by the Ministry in 1972 that a second look should be taken on the whole question and the work was remitted to a departmental group of officers.

8.44. The Committee note that though an expert group which was formed by Government to study the expansion of the Alloy Steels Plant at Durgapur from its present capacity of 1 lakh ingot tonnes to 3 lakh ingot tonnes had submitted its report to SAIL as early as June, 1973, Government had not taken any decision regarding the product-mix for the proposed expansion of the Alloy Steels Plant. The Committee were informed that the expert group had inter alia made the following recommendations:—

- (i) present capacity should first be achieved;
- (ii) a jobbing mill should be set up for rolling high alloy steels of about 6—10,000 tonnes per annum capacity;
- (iii) A cold rolling mill complex for the production of 30-35,000 tonnes of stainless steel should be set up. To start with, hot rolled strips should be imported and rolled in this complex, and later on these could be produced in one of the major steel plants, namely, Durgapur, TISCO or Rourkela. At that stage, the blooming mill could be utilised for rolling stainless steel ingots into slabs with the commissioning of cold rolling mill complex. It would be difficult to utilise the existing sheet mill complex for production of stainless steel sheets since the product would be inferior in quality and considerably more expensive. A detailed study would have to be made about the future of the sheet mill.

8.45. The Committee were also informed that the SAIL had commissioned the Metallurgical and Engineering Consultants (India) Limited for the preparation of pre-investment feasibility studies for the expansion of the Alloy Steels Plant on the basis of the recom-



recommendations of the group. The installation of a jobbing mill was also examined by SAIL. In addition, a provision of Rs. 21 crores was made in the draft Fifth Five Year Plan for the expansion of the Alloy Steels Plant and a separate provision of Rs. 47 crores for installation of a seamless tube plant. The expert group had also considered the economics and financial viability of the plant with the present product-mix and after expansion with a different product-mix and arrived at different figures of profit and loss in respect of the Alloy Steels Plant and also the seamless tube plant.

8.46. The Committee however find that the Alloy Steels Plant utilised only 61 per cent of its capacity in 1972-73 and 55 per cent in 1973-74. Though the capacity utilisation has improved to 78 per cent in ingots during 1974-75, there was still an unutilised capacity of 22 per cent. The Ministry are stated to be of the view that expansion should be thought of when production reached 85 per cent of the capacity and efforts should be made to improve the position regarding power and industrial relations. The Committee expect that SAIL would in the context of the emergency take the necessary measures in these respects to attain the rated capacity of the plant. The Committee also suggest that SAIL should take action to expedite erection and commissioning of the jobbing mill with a view to setting right the imbalances in production facilities. In view of the existing unutilised capacity, the Committee recommend that any decision about the expansion programme of the Alloy Steels Plant, Durgapur or setting up additional capacity for alloy steels elsewhere may be taken after ensuring full utilisation in a sustained manner of the existing capacity of Alloy Steels Plant, Durgapur and also after a thorough and critical examination of the report of the study group and the feasibility report of MECON consistent with the different kind of product-mix and the profitability of the plant and also demand for alloy steel in the country. The Committee also recommend that Government should review the estimates for demand and supply of alloy and special steels realistically and take suitable measures to increase the production of these steels so as to reduce dependence on imports. The Committee would like to be informed of the action taken in this regard.

#### **Visakhapatnam and Vijayanagar Steel Projects**

8.47. The Management of SAIL stated in a written note that the Public Investment Board considered on October 24, 1973 the proposals of the Department of Steel/SAIL for the preparation of the Detailed Project Report for Visakhapatnam Vijayanagar Steel Projects where annual ingot capacities of 3.2 million tonnes and 3.5 million tonnes respectively were envisaged. The capital cost

of Vijayanagar and Visakhapatnam Project had been estimated at Rs. 854.0 crores and Rs. 854.47 crores respectively based on cost estimate in 1971. The work relating to the acquisition of land required for the projects and for development of infrastructure facilities has made progress. Expenditure in the Fifth Plan on account of these two projects would be relatively small and might amount to about Rs. 250.00 crores only. Considering the small amount sanctioned for 1974-75, viz. Rupees two crores each, it was to be considered whether at this rate Rs. 250.00 crores would be available in Fifth Plan.

8.48. The Secretary, Department of Steel during evidence stated that the Public Investment Board had agreed to the proposals for setting up Visakhapatnam and Vijayanagar Steel Plants.

8.49. Asked whether the setting up of Steel Plants of 3.2 million tonnes and 3.5 million tonnes capacity could fit in with the concept of economy of the scale of the Western world, the Secretary, Department of Steel stated during evidence that:—

“Plants of lower size are even economical. These are fairly old studies. At that time, they came to conclusion that these were feasible. I may mention that another 2 million tonnes plant can be perfectly feasible in a given set of circumstances. It is not the size of the plant which is material but there are many other factors which make the plant viable. The studies at that time indicated that these plants are viable.”

8.50. To a question whether the SAIL was making some fresh study of the DPR, the Chairman, SAIL and Secretary, Department of Steel added that—

“We are not making any fresh study. The DPR will be made by the consultants concerned but of the product mix requirement, we are thinking of studying it. No doubt at the DPR stage. This will be passed on to the Consultants, there is a liaison-and then they will undertake the preparation of DPR.”

8.51. It was further added that Government had made an announcement as early as in April, 1970 regarding the setting up of these projects. The estimate of capital cost and profitability on investment would be known only after the DPRs were ready. In view of the high capital cost involved in respect of each of these

projects, the question of phasing the execution of these two projects suitably consistent with the availability of resources was still under examination. Owing to the severe constraint on resources, it might be possible only to do some preliminary work on these projects during the Fifth Plan and the bulk of the expenditure might have to be carried forward to the Sixth Plan. Final decisions on all these aspects would be taken in consultation with the Planning Commission and the Ministry of Finance.

8.52. As regards appointment of consultants in the new projects, the Department of Steel in a written note stated that:

“It had been decided to award the work of preparation of the DPR for the Visakhapatnam Steel Project to M/s. M. N. Dastur and Co. Private Limited. The DPR for the Vijayanagar Steel Project would be prepared by M/s. Metallurgical and Engineering Consultants (India) Limited (MECON). The selection of consultants was decided at the highest level, keeping in view their competence and the relative work-load already with them.

The assignment for the DPR was expected to be given to the Consultants shortly and it was expected that these reports would become available in about 21 months i.e. by the end of 1976. The examination of the DPRs would be taken up after the reports were received. In a written note furnished after evidence, SAIL confirmed the aforesaid position and stated that in April' 75, M/s. MECON and M/s. M. N. Dastur and Co., have been commissioned as consultants for Vijayanagar Steel Plant and Visakhapatnam Steel Plant respectively.

As regards the reasons for the delay in the appointment of Consultants for the preparation of the DPRs, the Department of Steel pointed out the following reasons:—

- (a) As these were large integrated steel Plants involving huge capital investment, the scope of work had to be determined clearly after a series of meetings with the Consulting Engineers;
- (b) The various alternatives to be discussed in the DPRs had also to be gone through in detail in order to incorporate these in the assignment to be given to the Consultants; and

- (c) Some time had to be given to the consulting engineers to quote the fee, after determination of the scope of work.

The discussions with the Consultants had been finalised and the draft assignment had also been got ready. It was expected that it should be possible to formally award the work for preparation of the DPRs to the consulting engineers in the near future."

8.53. In a written reply furnished after evidence the Department of Steel intimated that in the case of the Visakhapatnam Steel Project out of an estimated requirement of 5,700 acres of land for the plant, 5335 acres had already been acquired till the end of June, 1975. The balance area was expected to be acquired shortly.

8.54. As regards the Vijayanagar Steel Plant, out of about 9,000 acres of land required for the plant and slag dump, 7116 acres had already been acquired till the end of June, 1975.

8.55. The following items of work had also been completed which include studies for development of infrastructure facilities for these two projects:—

- (a) Topographical surveys and soil testing;
- (b) Testing of raw materials;
- (c) Preparation of preliminary reports for meeting the requirements of water and power during the construction stage and also at the operational stage;
- (d) Provision for railway facilities including exchange yards and sidings; and
- (e) Development of communications.

8.56. The total expenditure incurred till July, 1975 towards land acquisition etc. on these two projects is shown below:—

|                           |               |
|---------------------------|---------------|
| Visakhapatnam Steel Plant | Rs. 195 lakhs |
| Vijayanagar Steel Plant   | Rs. 174 lakhs |

8.57. The Committee regret to note that while a decision to set up the Visakhapatnam and Vijayanagar Steel Plants was taken as early as in April, 1970, the DPRs for these projects are still in the

process of being assigned to consultants even after a lapse of 5 years. At the meeting of the Public Investment Board held on 24-10-1973, the SAIL was authorised to take action for the preparation of DPRs for Visakhapatnam and Vijayanagar Steel Projects and in the meantime work regarding land acquisition and on essential preliminaries within the plan and budget allocation should go on. They learn that for the Visakhapatnam Steel Project out of 5700 acres of land required, 5335 acres had been acquired and for Vijayanagar Steel Plant out of about 9,000 acres of land about 7116 acres of land had already been acquired. Certain other items of work, such as, topographical surveys and soil testing, testing of raw materials, requirements of Water & power during the construction and operational stage, provision for railway facilities and development of communications had been completed. The Committee recommend that SAIL/Government should so plan the implementation of the projects that the ancillary facilities and inputs actually become available before the projects are commissioned.

8.58. The Committee were informed that the capital cost estimates prepared in 1970-71 (Visakhapatnam—Rs. 854.47 crores, and Vijayanagar—Rs. 854.00 crores) were not very relevant in the present context in view of the high capital cost of the plant and equipment and raw materials. The revised cost and profitability estimates would be covered in the DPR for these two plants.

8.59. The Committee also note that the work regarding preparation of DPR for the Visakhapatnam Steel Project would be entrusted to M/s. M. N. Dastur and Co., Pvt. Ltd., and that for the Vijayanagar Steel Project would be entrusted to MECON (India) Ltd. The selection of the consultants was decided at the highest level keeping in view their competence and the relative work-load already with them. The assignment for preparation of the DPRs would be given to the consultants shortly and the DPRs would become available by the end of 1976. The Committee find that the SAIL/Department of Steel are thinking of making a study of the product-mix requirements of these two plants which will be passed on to the consultants at the DPR stage.

8.60. The Committee are concerned to note the situation which has arisen on account of the poor off-take of steel and the consequent stock-piling and the likely effect the present trend of increased production will have on such stocks. The Committee would therefore like SAIL and the Government to have a fresh look at the requirements of the various kinds of steel in the country so that a

realistic assessment of the demand may be made before a decision on the product-mix requirements is taken and DPRs finalised. The Committee would also like Government and SAIL to ensure that, in planning and deciding on the product-mix of the new plants, imports of steel which are now being made in certain critical areas, are as far as possible reduced to the minimum.

8.61. The Committee would like SAIL and Department of Steel to conclude the study of the product-mix requirements keeping these factors in view so that the assignment of work of preparation of DPRs which is already delayed is expedited. Once the work is assigned to consultants, the Committee recommend that SAIL/ Government should keep a close and continuous watch to see that the DPRs become available by end of 1976 as envisaged.

## IX

### INDUSTRIAL RELATIONS

#### A. Industrial Relations

9.1. Each subsidiary company under Steel Authority of India Limited has its own well-established personnel department which takes care day-to-day problems in the field of personnel management and layout relations. Since the formation of the Holding Company, the main endeavour of SAIL in this field has been to further strengthen this autonomy at the Plant level and provide advice and assistance as necessary only on policy issues. SAIL also lays down broad policy guideline in the field of personnel management for all the subsidiaries.

9.2. With the exception of Durgapur, due to the many and varied efforts of SAIL and its subsidiaries, comparative peace prevails in all the steel plants, inspite of the many difficulties faced by the industry and its workers in matters such as shortage of power and movement of raw material and finished products. Even in Durgapur the situation is stated to be much better than what it was some two years ago.

9.3. It has been stated that during the short period of its existence, SAIL has taken a number of significant steps to bring together the managements of the subsidiaries and the trade union leaders both at the State and national levels so as to promote better understanding and create proper climate for fulfilling agreed production targets. Some of the steps taken by SAIL are outlined below—

9.4. At the instance of the Chairman, SAIL, a special meeting of the Joint Negotiating Committee was held in March, 1974 and the unions and workers in the steel industry were asked to exert their utmost for raising steel production. After reviewing the production performance for the year 1973-74, discussions were held for arriving at agreed targets of production in all the steel plants for the year 1974-75.

9.5. Such agreed target setting of production for the different steel plants was attempted for the first time last year, in the Joint

Negotiating Committee, at the instance of late Minister, Shri S. Mohan Kumaramangalam. Such exercises have brought the managements and the unions much closer in appreciating the problems in the steel industry and reaching agreements on targets for production. Such participative target-setting has helped in infusing greater enthusiasm and enlisting wider co-operation from the employees in individual plants.

9.6. In a conference of Chief Executives of enterprises under the Ministry of Steel and Mines held in New Delhi from 20th to 22nd March, 1974 a broad framework for an action plan for maintaining harmonious industrial relations was drawn up. The plan provided for a broad strategy of industrial relations including managements' role in bipartite committees, negotiating wage agreements, relations with trade union organisations, provision of food in industrial townships, housing and other welfare amenities, employment of scheduled casts scheduled tribes etc. Some of the broad conclusions reached in the above areas were as below—

9.7. The industry may have to accept the fact that in many of the units inter-union and intra-union rivalries will continue. The management will, however, have to respond with an organisation capable of dealing with consequential industrial relations problems arising from the situation. This will call for the following—

- (i) an approach based on fairness and equity, through the application of rules and regulations on a uniform basis;
- (ii) building up of bargaining strength by which there will be no compromise on issues involving safety, growth and development of the industry;
- (iii) consolidation/development of participative systems at sectional/departmental levels;
- (iv) provision of basic amenities such as food, drinking water, and medical facilities;
- (v) settlement of grievances in the shortest possible time and at the lowest possible step;
- (vi) a standing organisation for handling law and order situations with the help of State Government concerned; and
- (vii) consistency in management attitudes and decisions and ensuring continuity in top management.



9.8. Both steel and coal have in their respective Joint Negotiating Committee a useful tool for maintaining industrial peace. There are bi-partite committees functioning at the national level. SAIL takes a keen interest in the deliberation of these Joint Negotiating Committees.

9.9. In regard to industrial relations in the Plants, the representative of Department of the Steel stated during evidence that—

“The authority in the plant pays particularly special attention to industrial relations. Although it poses a serious problem at Durgapur, it is wrong to say that it acts as an impediment to production. We take pride in the fact that last year especially, when there was a very large increase in the cost of living and when there was crisis in regard to power and coal, even though the production in the plants had gone down—and consequently the incentive for the workers—we have no widespread industrial unrest in the plants. It is a sign of the maturity of workers, trade unions and certainly of the management. There was an intermittent trouble in Rourkela; and there have been difficulties in Durgapur, but by and large, industrial relations have been good and sound.

We have special problems at Durgapur, I do not deny it; but I take an overall view. The position, industrial relations-wise, relative to the situation in the country, is good and healthy. The credit on that score is due to the workers and to the management, as also to the trade unions. We have a Joint Negotiating Committee in which we have the representatives of all the central trade unions, viz., the INTUC, AITUC and CITU. The last one is represented through its union in Durgapur and the HMS. They are engaged not only in negotiations relating to wages—on which a 4 year agreement has been arrived at but also on matters affecting the steel industry; e.g., when we fixed the objectives and targets for the current year, we had detailed discussions with the trade union representatives; and at the requests both of the trade unions and of the managements, these were also discussed in the plants at the shop-floor, involving middle and lower tiers of management and of workers. Adoption of these practices was done, after the discussions, were over. I would, however, not say that we have solved our problems.

Durgapur is a case in point where we do still have production problems."

9.10. In reply to a question as to the methods adopted in Plants, for encouraging worker's participation from the shop level up to the top level, the representative of Department of Steel stated that—

"As regards the lowest level, in most of the plants there are joint committees at the departmental level. These committees deal with a wide variety of problems like production, cost, safety, welfare etc. There are other committees like works committee to deal with grievance handling. Then there is a higher level committee at the level of the General Manager. Some plants have Committees in between also. At the Apex or Industry wide level we have the Joint Negotiating Committee for the steel industry which has been functioning since 1969."

9.11. In addition it was stated that—

"A Standardisation Committee, a sub-Committee of the Joint Negotiating Committee, was also formed to look into the question of standardisation of wages and fringe benefits. The late Shri Mohan Kumaramangalam, who was the then Minister, was very impressed by the working of the Committee and suggested that this should not be only a Wage Negotiating Committee but that he would consult it on all matters pertaining to the steel industry. Even in respect of the production targets he said that the Joint Negotiating Committee should decide it. The Committee is still functioning. The period of the last agreement is over and there are fresh demands. We are looking into it."

The Secretary added that—

"So far as the steel industry is concerned, it was the first in the area of joint consultation. We have to be frank in saying that not all the departmental committees, not all the joint committees are functioning very efficiently. Some are functioning very well. Some not so well. The Committees in Rourkela, Bhilai and Jamshedpur are functioning exceedingly well. In Durgapur we have certain difficulties.

Here I would particularly like to refer to this hon. Committee's Recommendations in its 17th Report on the Personnel Policies and Labour Management Relations in Public Undertakings presented in April 1972 where it has given five excellent recommendations, which we are trying to follow.

In short, the position is that we have various production committees in the plant at the shop floor level, at the apex level and the all India level. In addition to this, we have informal consultation practically throughout the year, both during our visits to the plant as well as when some of them are either visiting us or have come here in connection with some meeting. Among these the most important is the informal consultation that is going on."

9.12. The Action Committee on Durgapur Steel Plant in its draft report stated as under regarding the industrial relations in that plant:—

"Easily the largest source of anxiety in DSP is the very poor state of relations between management and labour as well as between top management and other managerial staff. From early 1972 onwards, attempts have been made to bring order into an otherwise chaotic and turbulent industrial relations situation. These efforts in 1972 had started showing some results in 1973 although there had been scores of set backs recently."

In order to expedite the restoration of relations to normalcy, the Action Committee made the following recommendations:—

- (1) The three-tier system of councils should continue despite opposition to it by some of the trade unions leaders. Unfortunately, the first tier is still inoperative because of the stalemate on the issue of elections. The third tier, which is the State level Committee with the State Labour Minister as Chairman, is utilised sparingly, as it should deal with the only major basic issues getting referred to this level. In effect, then it is only the second tier, the Plant level Committee, which is active. This is a forum where all the three unions and the management deliberate on pending issues and seek to thrash out a solution.

Even if the progress is slow and halting, this kind of forum is superior to leaving issues to chance and free play of various conflicting forces. Efforts should, however, be made to take action in establishing the first tier, although any hasty action may upset the present equilibrium.

- (2) The personnel Department is the kingpin in making the industrial relations system effective. During 1972, the structure and the functions of the personnel Department were examined with the assistance of an external consultant. The recommendations that emerged were accepted by the officers of the personnel department and the management of the steel plants.

The General Manager should allocate the task of implementing the various provisions of the report as a time-bound programme. Unless some-body is given the specific responsibility, this work will get lower priority, under the pressure of day to day work.

- (3) The Personnel Department itself required strengthening at key positions particularly at the senior level and some induction of external expertise and re-allocation of some of the existing officers into the key jobs is recommended. At the intermediate level there are keen and competent people. Given the complexity of the situation and the challenges that exist, this department amply justifies the engagement of the very best talents at senior levels.

9.13. The Action Committee on Alloy Steels Plant, Durgapur, in its draft report stated as under in regard to the Industrial relations in that plant:—

Three-tier system, as exists in Durgapur Steel Plant, is in operation at Alloy Steels. It is felt that the Plant Level Committee has not been able to achieve as much as it should. However, a small committee of the Plant Level Committee, known as Apex Committee, has been functioning somewhat more satisfactorily. The Committee has been able to evolve a plant-wise production incentive scheme which might have worked satisfactorily but for the prolonged power-cut. The Committee is now confronted with two other issues; upgradation and manning.

It seems that there is some statement particularly in view of the likely impact of the proposed solutions on other steel plants, particularly at DSP. It is felt that it may be necessary for SAIL to provide guidelines as to what extent a constituent unit should enjoy autonomy in respect of such matters.

9.14. The base level machinery of the three-tier system could not be established because of the controversy over the way in which it should be constituted. In the interest of production it was necessary that these committees start functioning at the earliest opportunity. The SAIL authorities may like to take up the matter with the Government of West Bengal.

9.15. Numberwise, the Personnel Department is deficient, but more significantly qualitywise, the standard is below average. There are several vacancies in the Personnel Department. In this context, it is felt that priority attention should be given to these issues:

- (i) Creation of a more effective and objective recruitment system so that key level vacancies do not remain pending for long time.
- (ii) An intensive and imaginative training programme for the officers in the Personnel Department which should not only inculcate positive motivation towards their own work but also acquire the ability to deal with human problems with initiative, imagination and determination. Developing skills in the Personnel Department for training people in different departments to consult and work together for a common goal deserves high priority.

9.16. In reply to a question regarding the problem of multiplicity of unions in steel plants and the working of three-tier system in Durgapur, the representative of SAIL admitted that the three tier formula was not working properly at Durgapur and that they had not been able to provide an alternative to it. He added that:—

“At present the day to day working is more or less such that we are pulling with groups of workers. But this is no solution. The solution will have to lie somewhere in ensuring that there is a strong union with which one can deal. In the Alloy Steels plant they have got better production because better rapport has been established

and, we hope, here also with passage of time we will achieve better production. The lack of unions getting together is a reflection of the political situation. There is no doubt about it. You cannot bypass that factor. We have made lot of efforts but so far they have not produced any results."

9.17. Asked if the appointment of a trade union man as General Manager had improved industrial relations at Durgapur Steel Plant, the witness stated that:—

"The problem there is frankly one which is the result of several years of political interference and the state of affairs that prevailed in that part of the country. Unlike Bhilai and Rourkela, where we are able to get the co-operation of the unions, the unions of these places are attached to various political parties directly or indirectly but in Durgapur this is not the case and, therefore, in fairness to the problem one must see the depth of the problem and in that context see whether this individual has been able to do. Further, in this it is not that individual alone, we must also sitting here share the responsibility for it. In the joint negotiating committee all are present. In the committees which are set up at floor level dominant unions take representation."

9.18. With regard to industrial relations in the Alloy Steel Plant at Durgapur the Department of Steel, in a reply furnished after evidence, stated that:—

"During the early part of 1974, the Action Committee of Planning Commission had submitted a draft report on the working of the Alloy Steels Plant, Durgapur, based on the examination by the Committee of the problems of the plant. The report was to be finalised after a discussion between the Committee members and the Minister of Steel and Mines. This discussion could not, however, take place and in the meantime, the term of the Committee expired. The draft report of the Committee has been forwarded to SAIL for necessary action.

No follow up action, as such, has been taken so far on the recommendations of the Action Committee in regard to industrial relations in the Alloy Steels Plant.

However, there has been an appreciable improvement in the labour relations situation in the Alloy Steel Plant and the production in the Plant has shown a very substantial improvement since May, 1974."

9.19. In regard to the linkage of wages with production the representative of SAIL stated that:

"We have not succeeded in linking basic wage and dearness allowance to production. Every time at the time of wage negotiation, it is used as a bargaining argument. But there are schemes in all the plants where additional earnings are possible and these are linked to production by way of incentives. That is over and above the basic wage and dearness allowance."

9.20. In reply to a point arising out of discussion held by the Committee on Public Undertakings with representatives of Bhilai Steel Plant during their tour in October, 1974 the Management stated as follows:—

"Incentive Bonus: In addition to the wages and salaries, an incentive bonus scheme has been in force in our plant since 1961. Earlier this incentive bonus system was purely based on production volume only. This scheme was revised from 1st June, 1971 based on the productivity of workmen in groups. The main objectives of the scheme are:—

- (i) To change over to group incentive scheme to provide better motivation for smaller group of workers.
- (ii) To have better control on inputs like manpower, overtime incidents etc.
- (iii) To achieve rated capacity of production and also to work with lesser men.

Productivity is measured in terms of effort of performance index which is the ratio of effective output and labour input.

9.21. It was also stated that incentive schemes related to production of individual departments had been in operation since the inception of all the Steel Plant. Over a period of time, the Management felt that the effectiveness of the scheme was much diminished. The Management of HSL, therefore, decided to evolve a more effective incentive scheme and engaged in this connection an outside consulting agency viz. Consulting and Applied Research

Division of Administrative Staff College of India, Hyderabad. Detailed studies were conducted with the assistance of these consultants over a period of 2½ years as a result of which it was decided to introduce a productivity-oriented scheme (known as CARD scheme) in the HSL plants.

9.22. In Durgapur Steel Plant this revised incentive scheme was introduced in 13 departments after protracted negotiations with the unions during the period 1970—72 and approximately 10,000 employees are covered by this scheme. HSL Management decided that wherever the revised incentive scheme could not be implemented, the plant concerned might work out a simplified incentive scheme in consultation with Director (Personnel).

9.23. After protracted negotiations, an agreement was signed on 2nd February, 1974 conceding various concessions to the worker in the interest of starting up the battery.

9.24. A revised incentive scheme introduced in Coke Ovens department with effect from 2nd February, 1974 which was purely related to production as against the productivity-oriented scheme adopted in 13 other departments of DSP.

9.25. The SAIL are however of the view that in an integrated steel plant, unless the incentive schemes in different departments are administered in an equitable manner, they are likely to create a chain of demands and disputes.

9.26. The Committee have further been informed that loss of production resulting from labour troubles during last three years was as follows:—

| <i>Ingot Steel</i>             | (Approx. in tonnes) |         |         |
|--------------------------------|---------------------|---------|---------|
|                                | 1972-73             | 1973-74 | 1974-75 |
| Bhilai Steel Plant . . . . .   | Nil                 | Nil     | 5,669   |
| Durgapur Steel Plant . . . . . | 89,823              | 61,228  | 8,480   |
| Rourkela Steel Plant . . . . . | 2,675               | 18,542  | 8,290   |
| Alloy Steel Plant . . . . .    | 9,329               | 5,927   | 5,438   |
| <i>Finished Steel Plant</i>    |                     |         |         |
| Bhilai Steel Plant . . . . .   | Nil                 | Nil     | 542     |
| Durgapur Steel Plant . . . . . | 54,961              | 56,337  | 8,893   |
| Rourkela Steel Plant . . . . . | 72,870              | 35,420  | 11,252  |
| Alloy Steel Plant . . . . .    | 18,110              | [6,669  | 3,269   |



9.27. SAIL has stated in a written reply that incentives schemes have been introduced in the Steel plants of Hindustan Steel Limited since 1961-62 with a view to provide necessary motivation for the workers to achieve rated capacities of the various units of the plants.

9.28. The statistics of losses of production arising from labour trouble/unrest, indicate an improvement in 1974-75 vis-a-vis 1973-74, in respect of both ingot steel and finished steel, the improvement being more marked in the latter.

9.29. It has been stated that this improvement is a resultant of the better industrial relations climate in 1974-75 in the HSL plants. It is, therefore difficult to isolate the impact of incentive schemes on production unless these external constraints are removed and stable conditions obtained.

9.30. In a note furnished after evidence the Department of Steel intimated details of amenities provided to the workers of steel plants both in Public and Private Sectors as follows:—

“All the steel plants in addition to providing canteens which are statutorily required, also provide extensive welfare facilities and amenities to their employees in the areas of housing education, etc.

In the canteens the employees can obtain snacks and meals at heavily subsidised rates. In addition to providing residential accommodation in planned townships with laid out parks, the steel plants provide general and specialised medical facilities in well equipped modern hospitals. In addition to the hospitals, there are Health Centres scattered throughout the townships where the employees can obtain medical treatment of a minor nature. To educate the employee's children, the steel plants run a number of schools from the Primary stage to the Higher Secondary level, in which the medium of instruction is English, Hindi and other languages such as Bengali and Oriya. The school children are provided subsidised uniforms, tiffin, and bus transport. As the townships are located at some distance from the steel plants, the managements of the public sector steel plants run a fleet of buses to transport the employees from their residence in the townships to the steel plants and back, at subsidised rates. Those employees who do not avail of the transport facili-

ties, are paid a transport allowance. In order to contribute to the social and community life of the employees, the managements provide extensive sports and recreational facilities including community centres, clubs and cinemas etc. Sports and games are actively encouraged by the managements. The managements also provide financial supports to a chain of consumer cooperative stores from which the employees can obtain their essential requirements at fair prices."

**9.31. The Committee note that SAIL as a holding Company had taken a number of significant steps to bring together the management of the subsidiaries and the trade union leaders both at the local and national levels so as to promote better understanding and create proper climate for fulfilling agreed production targets. One such special meeting of the Joint Negotiating Committee in which representatives of Central Trade Union organisation and the recognised unions from each plant participated, resulted in bringing the management and the union closer for appreciating the problems in the Steel Industry and reaching agreements on targets of production. The Committee recommend that the working of the system of the Joint Negotiating Committee may be reviewed so as to strengthen it in the interest of improving performance.**

**9.32. The Committee also note that in a Conference of Chief Executives of subsidiaries of SAIL held in New Delhi in March, 1974 a broad framework for an action plan for maintaining harmonious industrial relations was drawn up. The plan provided for management's role in bi partite Committees, negotiating wage agreements, relations with trade union organisations, provision of food in industrial townships, housing and other welfare amenities etc.**

**9.33. The Committee were informed that though by and large industrial relations were stated to have been good and sound, there was intermittent trouble in Rourkela and difficulties in Durgapur. The Committee also note that the Action Committee on Public Enterprises have made certain recommendations emphasising inter alia the need for the General Manager allocating the task of implementing the various provisions of the Report as a time-bound programme, for strengthening the Personnel Department of the Durgapur Steel Plant, and creation of a more effective and objective recruitment system, institution of intensive and imaginative training programme for officers in the Personnel Department so as to acquire**

ability to deal with human problems with initiative, imagination and determination. The Committee would like that SAIL/Ministry should provide suitable guidelines to the subsidiaries in order to strengthen the industrial relations keeping the recommendations of Action Committee in view and ensure that they are implemented within a specified time.

9.34. The Committee also note that in regard to Alloy Steels Plant though the Action Committee had given their recommendations as early as 1974, no follow up action had been taken so far thereon. The Committee recommend that Government/SAIL should take steps to implement the recommendations of the Action Committee in the interest of bettering the industrial relations in Alloy Steels Plant which is understood to have shown some improvement.

9.35. The Committee also note that in Bhilai Steel Plant an incentive Bonus Scheme has been introduced based on productivity of workmen in groups in order to have better control on inputs and achieve rated capacity of production.

9.36. The Committee note that incentive schemes had been introduced in the steel plants of HSL since 1961-62 with a view to provide necessary motivation for the workers to achieve rated capacity of the various units of the plants. The Committee also note that as in the Durgapur Steel Plant this incentive scheme was not effective, a revised incentive scheme was introduced with effect from 2-2-1974, which was purely related to production as against the productivity oriented scheme adopted in certain departments of Durgapur Steel Plant earlier. The Committee also find that loss of production due to labour troubles has been considerably reduced. According to SAIL it is difficult to isolate the impact of incentive scheme on production. The Committee would like that the working of the scheme should be carefully watched and its impact on productivity should be carefully assessed.

9.37. The Committee are glad to note that the recommendations made in their 17th Report (1971-72) on Personnel Policies and Labour Management Relations in Public Undertakings about participation of workers and their representatives in management of Public Undertakings at all levels beginning from the shop level to the Board of Directors has been accepted by Government and suitable guidelines have been issued by Government in this behalf. The Committee hope that Government/SAIL would keep these in view and implement them as early as possible both in letter and spirit and ensure workers' participation at all effective levels in the interest of increased production and better industrial relations.

## **B. Recruitment and Training**

9.38. At present the recruitment of technical personnel in the steel plants is done both in the executive level and non-executive level. In the executive level the recruitment is mostly confined to the first level supervisory for which HSL take Graduate Engineers every year. On the non-technical side, Executive Trainees are taken to man various non-technical departments.

### **Graduate Engineers:**

9.39. The requirements of all the plants/units are pooled together and recruitment of Graduate Engineers for filling up these vacancies is done centrally on all India basis.

Candidates selected are required to undergo training for a period of 1½ years. They are required to execute a bond to serve the Company for a minimum period of five years after the completion of training.

### **Executive Trainees:**

9.40. For manning junior executive positions in non-technical departments like, Personnel, Purchase, Stores, Town Administration, Public Relations etc. HSL recruit Executive Trainees. The selection for this category is also made on all India basis. The selected candidates are required to undergo training for 1½ years. On successful completion of the training they are appointed on regular jobs as Assistant Stores Officer, Assistant Purchase Officer/Sales Executive etc.

9.41. Executive Trainees like Graduate Engineers are also required to execute a bond to serve the company for a minimum period of 5 years after completion of their training.

9.42. Both in the case of Graduate Engineers and Executive Trainees vacancies are reserved for Scheduled Caste/Tribe candidates according to the prescribed quota.

9.43. The training of Executive Trainees comprises both institutional training and on-the-job training.

9.44. For other categories of technical personnel (Senior Operative Trainees, Junior Operative Trainees, Artisan Trainees) recruitment is done at the plant level.

9.45. The number of persons trained in Technical Institutes at the plants since inception till March, 1974 is given below :

| Category                        | RSP  | BSP  | DSP  | ASP | Total |
|---------------------------------|------|------|------|-----|-------|
| Graduate Engineers.             | 1329 | 1230 | 1014 | 123 | 3696  |
| Sr. Operative Trainees          | 1325 | 1668 | 966  | 150 | 4109  |
| Jr. Operative Trainees          | 1246 | 1045 | 978  | 331 | 3600  |
| Skilled Workers/Act Apprentices | 2822 | 2119 | 1685 | 230 | 6856  |
| Executive Trainees              |      | ..   |      | ..  | 145   |

The other training activities are as under :

### **Supervisory Development**

9.46. In order to ensure that no managerial gaps develop at any level and to avoid any dilution in the executive cadre, comprehensive departmental training schemes have been introduced for preparing Non-Executive for Promotion to Executive Posts. Under the scheme employees have to undertake 10 months training programme followed by a departmental examination.

9.47. In-Company training programmes are arranged by Management Development Sections/Training Depts. in the plants and by the Management Training Institute at Ranchi. The Management Training Institute at Ranchi was set up in 1962 mainly to take care of the in-company training and developmental needs of senior and middle level personnel of the Company. MTI has conducted 204 programmes from February 1962 (inception) to October, 1974 in the different areas, viz., functional areas like Personnel, Finance, Marketing, General Management, Tools and Techniques etc. A total number of 3594 participants drawn from different plants/units have undergone the training/participated in the various programmes. Since 1972, MTI is also taking participants from Bharat Coking Coal, Bokaro Steel Limited, Mysore Iron & Steel, NMDC, NCDC, TISCO, IISCO etc. The training Institutes at Rourkela, Durgapur and Alloy Steels Plant are arranging Management Development programmes for supervisors and middle management. Bhilai has set up a Management Training Centre which undertakes the training for the personnel at different levels in different disciplines. These Institutes have developed their own faculty and they also invite some eminent speakers and experts from outside from time to time.

**Outside Training:**

9.48. HSL is also utilising the training programmes available within the country. Executive with potential are sent to advance/specialised training programmes conducted by Institutes such as Administrative Staff College of India, Indian Institute of Management at Calcutta and Ahmedabad, All India Management Association, National Productivity Council, etc.

**Employees Training:**

9.49. Depending upon the organisational and individual needs, the personnel in the plants have to be given training on a continuous basis to help them acquire the necessary knowledge, skills and attitudes. For this purpose, each plant is having a need-oriented employees' training scheme.

**Special Pre-Employment Training for Scheduled Castes/Scheduled Tribes:**

9.50. In order to improve the representation of scheduled caste and scheduled tribe candidates in the executive cadre, HSL has introduced a special Pre-Employment Training Scheme for the SC/ST candidates. SC and ST candidates who are not successful in the competitive examination held for the recruitment of Graduate Engineers and Executive Trainees are taken for this Special Pre-Employment Training for a period of six months. During the training they are paid a stipend of Rs. 350/- p.m. On successful completion of training they are considered for appointment as Graduate Engineers and Executive Trainees.

9.51. For the first batch (1972-73), 113 scheduled caste/tribe candidates were offered this facility of pre-employment training. 19 candidates joined the training. Of this, 6 candidates left the training, during the training period. The remaining 13 who completed the training have been absorbed as Graduate Engineers. In the second batch (1973-74), 94 offers were sent to scheduled caste/tribe candidates, out of which 25 joined the training on 2nd Sept., 1974.

**Training of Non-HSL Personnel:**

9.52. In addition to the training of its own employees, HSL has extended its training facilities for training the personnel required

by Bokaro Steel Limited, Salen Steel Ltd., Heavy Engineering Corporation, Orissa Industrial Development Corporation, Mysore Iron & Steel Works, Fertilizer Corporation of India etc.

9.53. Since 1968, HSL has also extended training facilities for training 200 Graduates Engineers and 100 diploma holders every year under the Government of India Scheme for training un-employed engineering personnel (Government of India Stipendary Training Scheme, Ministry of Education).

9.54. About 150 to 200 Vacation Trainees from different engineering colleges and universities in the country are also getting the training in HSL Technical Institutes. The total number of vacation trainees trained till March, 1974 is approximately 4000.

#### Foreign Training:

9.55. In the initial stages, Hindustan Steel had to send a number of engineers and technicians for training in foreign countries, as adequate training facilities in the relevant fields were not available in the country. With development of training facilities at the plants, it is no longer necessary to send personnel abroad for training in those areas. Foreign training is now confined only to these areas where there is need for specialised knowledge and techniques, which are not available within the country. The training in foreign countries is generally covered under foreign aided programmes under special bilateral agreements.

9.56. Till March, 1974, 2795 persons in the different plants/units have been trained. The country-wise and plantwise break up of the persons sent for training abroad since inception is as follows :—

| Name of the Country | RSP | BSP | DSP | ASP | Central Units | Total |
|---------------------|-----|-----|-----|-----|---------------|-------|
|                     | 1   | 2   | 3   | 4   | 5             | 6     |
| Australia           | 36  | 3   | 97  | 39  | 1             | 176   |
| Canada              |     | 2   | 1   | 100 | 5             | 108   |
| Czechoslovakia      | 1   | 1   | ..  | ..  | ..            | 2     |
| France              | 1   | 4   | 1   | 1   | 7             | 14    |
| Malawi              | 8   | ..  | ..  | ..  | ..            | 8     |
| Italy               | ..  | 1   | ..  | ..  | 2             | 3     |
| Japan               | 4   | 4   | 12  | 23  | ..            | 43    |

| 1          | 2   | 3    | 4   | 5   | 6  | 7    |
|------------|-----|------|-----|-----|----|------|
| U.K.       | 18  | 8    | 404 | 3   | 6  | 439  |
| USA        | 408 | 6    | 177 |     | 28 | 619  |
| USSR       | 5   | 1065 | 6   | ..  | 2  | 1078 |
| W. Germany | 293 | 1    | 5   | 3   | 3  | 305  |
| Total      | 774 | 1095 | 703 | 169 | 54 | 2795 |

### Training of Foreign Nationals:

9.57. Under the aided programmes such as Colombo Plan and similar other programmes agreed upon by the Government of India and such other schemes. HSL has trained 135 foreign nationals in the plants till March, 1974. This includes personnel from Korea, Ceylon, Burma, W. Germany, South Vietnam, Spain, Iran and Nigeria.

9.58. In December 1968, HSL entered into an agreement with the National Iranian Steel Corporation to train technical personnels. Under this agreement, HSL trained 263 trainees at Rourkela and Bhilai Steel Plants. The training period varied from six months to 15 months and the programme provided for general orientation to steel plants and specialised training in specific areas.

9.59. In August 1974, HSL entered into an agreement with the Nigerian Steel Development Authority to train about 180 trainees of different categories. The first batch of 30 trainees started their training at Bhilai Steel Plant in August/September, 1974. The agreement is for a period of four years. The period of training for the Nigerian personnel varies from one year to 1½ years. They will be provided general orientation training in steel plants and also specialised training in specific areas.

9.60. The Committee find that SAIL/HSL has developed its own Recruitment and Training Procedures and till end of March, 1974, as many as 18406 persons have been trained in different categories. The Committee also note that in the initial stages, HSL had to send a number of engineers and technicians in foreign countries for training. The Committee are glad to note that with the development of training facilities at the HSL plants, it is no longer necessary to send personnel abroad for training except in areas where there is need for specialised knowledge and technique which are not available in the country. The training in foreign countries is generally covered under foreign aided programmes under bi-lateral



agreements. The Committee are informed that till end of March, 1974, 2795 persons of the different plants have been trained abroad. The Committee hope that with the expertise developed so far it should be possible for SAIL to develop training programmes in all facets of steel production suited to Indian conditions and obviate the necessity for foreign training abroad as far as possible.

9.61. The Committee would, however, caution that SAIL should lay down strict procedures for manning the different units and develop staff standards for different activities and ensure that overheads and levels of supervisions are not excessive.

### C. Labour Productivity

9.62. The yardstick for measuring labour productivity for Indian steel plants is expressed in terms of "Ingot tonnes per man-year" instead of "output per man-shift (OMS)". In calculating this, the production of ingot steel and 25% of pig iron for sale and the manpower employed (direct and indirect) for the production of the same are taken into account. The figures for last three years and the latest available figures for steel industry in Japan, Germany and USA are given below:

Labour Productivity in Indian Steel Plant  
(Ingot tonnes per man-year)

| Plant    | 1971-72 | 1972-73 | 1973-74 |
|----------|---------|---------|---------|
| Bhilai   | 70      | 72      | 63      |
| Durgapur | 32      | 31      | 33      |
| Rourkela | 35      | 50      | 42      |
| TISCO    | 46      | 45      | 40      |
| IISCO    | 36      | 24      | 24      |

Labour Productivity in Steel Industry Abroad  
(Tonnes of crude steel produced per man-year)

| Country      | 1970 | 1971 | 1972 |
|--------------|------|------|------|
| Japan        | 282  | 266  | 303  |
| West Germany | 197  | 185  | 195  |
| USA          | 225  | 224  | 252  |

9.63. The Mehtab Committee which considered the question of labour productivity in steel plants in its report had observed that—

“It seems to us that there are major possibilities of effecting improvement both in Manpower productivity and personnel costs with each expansion of the Steel Plants. We consider it possible to raise the productivity in respect of works personnel from the present level of 55 to 70 ingot tonne per man year to a productivity index of about 125 ingot tonne per man-year and above in each of the plants.”

9.64. While examining the working of HSL in 1971-72, the Committee on Public Undertakings enquired about the aforesaid recommendation of the Mehtab Committee. The government replied that HSL for the present set the following targets in respect of labour productivity at the end of the current expansion of the Steel Plants :

|                      |     |                           |
|----------------------|-----|---------------------------|
| Bhilai Steel Plant   | 100 | ingot Tonnes per man-year |
| Durgapur Steel Plant | 90  | -do-                      |
| Rourkela Steel Plant | 95  | -do-                      |

9.65. Labour productivity in Bhilai, Durgapur, Rourkela, TISCO and IISCO during 1965-66 were 70, 68, 70, 66.5 and 40.5 ingot tonnes per man-year respectively. In 1969, ingot tonnes per man-year in advanced countries like Japan, West Germany and USA were 247, 122 and 235 respectively and in 1972 productivity in these countries were raised to 303, 195 and 252 ingot tonnes per man-year respectively.

9.66. In case of Indian Steel Plants, viz. Bhilai, Durgapur, Rourkela, TISCO and IISCO the productivity during 1969-70 were 71, 39, 47, 44 and 43 ingot tonnes per man-year respectively and during 1973-74 labour productivity in these steel plants came down to 63, 33, 42, 40 and 24 ingot tonnes for man-year respectively.

9.67. It has been stated that the labour productivity figures in Indian Steel Plants and these in the steel industry abroad are not comparable for the following reasons :

- (i) In foreign steel plants, many activities like maintenance, transport etc. are done on contract and men engaged thereon are not included in the number of men for steel production.
- (ii) The level of automation and mechanisation is much higher in foreign steel plants.

- (iii) In Indian steel plants the manpower figures include indirect labour required for administration, township and medical services.

9.68. The steel plants have incentive schemes designed primarily to improve productivity. Suitable workers' participation, training and employee development schemes have been adopted to improve the productivity. Suitable balancing facilities are being provided to augment the production.

9.69. The Committee note that the yardstick for measuring labour productivity in steel plants is expressed in terms of "ingot tonnes per man-year" and is calculated after taking into account the production of ingot steel and 25 per cent of pig iron for sale and the man-power employed (direct and indirect). They observe that the Mehta Committee, which examined the question of labour productivity in steel plants, had expressed the view that it should be possible for HSL plants to raise the productivity to about 125 ingot tonnes per man-year and above in each of the steel plants. The Government informed the Committee on Public Undertakings in 1971-72 that HSL has set to achieve a target of 100, 90 and 95 ingot tonnes of steel per man year in BSP, DSP and RSP respectively by the end of current expansion of the steel plants. The Committee regret to note that SAIL/HSL has not only failed to improve the productivity over 1969, it has not even been able to maintain the productivity in any of the steel plants.

9.70. The Committee also note that the labour productivity in steel industry abroad in 1972 was 303 tonnes of crude steel per man year in Japan, 195 in West Germany and 252 in USA as compared to the highest labour productivity of 71 ingot tonnes per man-year achieved in India in Bhilai in 1969. The labour productivity figures in Indian steel plants and those in the steel industry abroad are stated to be not comparable because in foreign countries many activities are done on contract and the men engaged thereon are not taken into account, the level of automation there is much higher and man-power figures in India include indirect labour required for administration, township and medical services also. While the labour productivity figures in Indian Steel plants may not be comparable with those in the steel industry abroad, the Committee cannot appreciate the reasons for wide variations in the labour productivity figures in the various steel plants in India. In 1973-74, while the labour productivity in Bhilai was 63 ingot tonnes per man year, it

was almost half of this figure in Durgapur (33) and over less than half in IISCO (24). In Rourkela and TISCO too, it was as low as 42 and 40 respectively. They would like SAIL to investigate the reasons for the sharp variation in the labour productivity figures in respect of the different steel plants in India with a view to devising ways and means of bringing them upto an optimum level.

9.71. The Committee further observe that steel plants abroad, i.e. Japan, West Germany and USA had been able to raise their productivity of labour from 247, 122 and 235 ingot tonnes per man-year in 1969 to 303, 195 and 352 ingot tonnes per man-year respectively in 1972. In case of India, the productivity of labour which in 1969 was 79,39 and 47 ingot tonnes per man-year in Bhilai, Durgapur and Rourkela steel plants respectively came down to 63, 33 and 42 ingot tonnes per man-year respectively in 1973-74. The Committee are constrained to note that whereas the steel plants in the countries abroad have improved their labour productivity, in case of HSL steel plants, it has deteriorated. They feel that even if labour productivity of countries abroad is not comparable with that of India for reasons indicated by SAIL, improvements in productivity is an imperative need for all progressive and developing industries. They desire SAIL to examine the matter critically, analyse reasons for deterioration in productivity and take suitable steps to improve its productivity and try to achieve the minimum level of productivity of 125 ingot tonnes per man-year as set forth by the Mehtab Committee.

**ORGANISATION**

**A. Constitution and Functions**

10.1 Steel Authority of India Limited (SAIL) has the following subsidiaries as on 1st March, 1975:—

1. Hindustan Steel Limited.
2. National Mineral Development Corporation Ltd.
3. Bokaro Steel Ltd.
4. Hindustan Steel Works Construction Ltd.
5. Salem Steel Ltd.
6. Metallurgical and Engineering Consultants (India) Ltd.
7. SAIL International Ltd.
8. Bharat Refractories Ltd.
9. Metal Scrap Trade Corporation Ltd.
10. Bolani Ores Ltd.

Out of the above, Hindustan Steel Limited has under its management four steel plants, viz. Bhilai Steel Plant, Durgapur Steel Plant, Rourkela Steel Plant and Alloy Steels Plant. Bokaro Steel Limited has a steel plant at Bokaro. Steel Plant of Salem Steel Limited is under Construction.

**Constitution of SAIL Board:**

10.2. The Chairman of the Board of SAIL is appointed by the President of India. The Members of the Bokaro are appointed by the President in consultation with the Chairman of SAIL. The Board includes at present four full-time Directors, incharge of functional areas such as Finance, Personnel, Technical/Production and Commercial. The Chairman/Chief Executives of some of the subsidiaries companies are also appointed to the Board of SAIL.

10.3. The Secretary to the Government in the Ministry of Finance and the Secretary in the Planning Commission are also appointed as non-rotational Directors in SAIL. The bring to bear

on the decision making process in the Board of SAIL the points of view of the Ministry of Finance and the Planning Commission at the highest level. Since Government have delegated to the Board of SAIL some of its important functions and powers with a view to ensure speedy fulfilment of its own objectives, the association of these two representatives with the Board ensures that the budget and plans of SAIL are in accordance with the priorities and resources position of the Government. This also reduces the need for any subsequent detailed examination of the budget, plan and schemes of SAIL outside its Board in the Ministry of Finance and the Planning Commission.

10.4. In addition to the above, part-time Directors are also appointed on the SAIL Board by the Government. These part-time Directors retire by rotation, one-third to retire in every Annual General Meeting. Directors appointed to Board are persons of experience who could contribute their wise counsel to the Board and/or whose experience or standing is of special value to the work of the Company.

10.5. A representative of the Public Sector Financial Institutions is also in the Board of SAIL.

10.6. The Chairman of SAIL is also Secretary to the Government in the Ministry of Steel and Mines. This ensures that the Holding Company is not just another link in the chain of decision making but is able to carry out its duties and functions in the most efficient manner possible with the minimum necessary amount of guidance from the Ministry and Government. This also ensures that SAIL conforms to the socio-economic policies of Government and discharges them diligently and efficiently.

10.7. The Chairman of the subsidiaries is appointed by the Chairman of SAIL but only with the approval of President. The Directors on the Boards of the subsidiaries are appointed by the Chairman of SAIL in consultation with the Chairman of the respective subsidiary. Before making appointments, qualifications and experience in the areas of interest to SAIL like Finance, Industry, Labour Relations, Administration, Technical, etc. are taken into account.

10.8. The appointment of the members of the Board of the Steel Authority on the Board/Boards of other subsidiary companies has been done with a view to facilitate coordination on important matters and also taking note of the experience and ability of the Director concerned to be able to make worthwhile contribution in

specific areas. The appointment of non-Government Directors on the Board of the Steel Authority is decided after taking into account the experience, ability and eminence of the individuals concerned in specialised field of activity so that they are able to make a worthwhile contribution in the decisions that the Board of the Steel Authority will be required to take from time to time.

10.9. Chairman, Steel Authority of India Limited, is the Chief Executive of the Company. He is also concurrently the Secretary to the Department of Steel. Investiture of these two functions in one executive was conceived in June, 1972, and the post was created with Cabinet approval on August 14, 1972. Rationale behind this decision emanated from the following concepts:—

- (i) That the Holding Company should exercise entrepreneurial functions on behalf of the Government, marshal and operate investments in areas considered as core and strategic.
- (ii) Operations and management of Holding Company should be done on sound industrial and commercial principles ranged by a professional. Government shall only lay down broad policy objectives which shall form the parameters within which the Holding Company shall operate.
- (iii) Performance evaluation of the Holding Company and its subsidiaries is required to be undertaken in the context of fiscal norms and targets laid down by the Government.

10.10. It was felt that to integrate these objectives and pave way for the implementation of the chartered plan with expeditious dispatch, it would be better to have the functions of the Chairman, SAIL, and Secretary, Department of Steel, vested in one person.

10.11. However, while implementing this decision, definite areas have been visualised, which preserve the individuality of both the roles.

10.12. Chairman, SAIL, is the Chief Executive of the Company. Board of Directors of SAIL have delegated to him specific powers during its first meeting held on 9th February, 1973. In spite of the two of functions discharged by Chairman, SAIL, the Board decision envisages for him a role of *Primus inter pares* only. The Board is

the final authority in relation to key result areas like budget, acquisition of companies, capital estimates, contracts of a high value, and personnel policies.

10.13. In so far as the specific functions of the Chairman are concerned, the Articles of Association envisage that:

- (a) All members of the Board of Directors of SAIL (excluding the Directors representing the Government) shall be appointed by the President of India, in consultation with Chairman.
- (b) Chairman of the Subsidiaries are to be appointed by Chairman, SAIL, with the specific approval of the President. The Directors of the Boards of Subsidiaries are appointed by Chairman, SAIL, in consultation with the Chairman of the concerned subsidiary.
- (c) General Managers/Chief Executives of the Subsidiaries are to be appointed and their terms and conditions of appointment settled by the Chairman of the respective subsidiary with the approval of the selection committee of SAIL of which Chairman, SAIL, shall be the Chairman.
- (d) Subject to budgetary provisions, capital expenditure estimated to cost Rs. 10 crores and more are required to be examined by a committee of experts, which shall be presided over by Chairman, SAIL, before being submitted to Government for approval/sanction.
- (e) Chairman, SAIL, as the Chief Executive of the Company is responsible to the Board and the Government for the attainment of the objectives for which SAIL has been set up, and the implementation of the policies and guidelines laid down by the Government from time to time.

10.14. In the execution of the functions Chairman provides the necessary leadership and direction and accepts the accountability. This has been done by ensuring a participative process in decision-making at various levels.

10.15. Again, SAIL Board meets as frequently as possible to provide for the inter play of ideas and professional scrutiny of important problems. Under the terms of Articles of Association of SAIL, Chairman is required to reserve for the decision of the President,



any proposal or decision of the Board of Directors or any matter brought before the Board which, in the opinion of Chairman raises important issues which should be brought to the notice of the Government.

10.16. Decision making in SAIL is done on the basis of depth studies of various problems, initiated through different committees.

10.17. All schemes costing more than Rs. 10 crores would come up to Government for examination. However, in order to ensure that all such capital investment proposals, which are to be financed directly from Government funds, are administered with due regard to principles of financial prudence, availability of resources and priorities indicated in the Plan, an *ad-hoc* Committee has been set up by SAIL for examination of such proposals. This is in pursuance of a decision by the Government. The Committee which is presided over by the Chairman SAIL, consists of the representatives of SAIL, Ministry of Finance and Planning Commission.

10.18. SAIL Headquarters has been organised in a properly structured manner to tackle the various issues relating to production, commercial, financial and personnel areas. In the discharge of the assigned functions, the departments and divisions concerned identify the key result areas and tackle the issues, involved. The job description provided in the organisation chart illustrate the areas which have been brought under the organisational scrutiny. *Inter alia* the same also shows the scope and details of the functional areas coming under the different Directors.

10.19. It has been the intention and achievement in SAIL over a period of time to obtain a free exchange of ideas while discharging the different functions assigned to Chairman, SAIL. There is a general practice to have both formal and informal consultations, among the Directors and the officers at the different levels in the plant to ensure a collective decision making. In a number of areas like the appointments of officers other than GS and AGS in the plants, decision making authority has been delegated to the plants themselves. This ensures involvement, as well as responsibility for the operating personnel in decisions affecting their day to day work.

10.20. In so far as the other function is concerned, namely, that of Secretary, Steel, there is a functional identity distinct, from that of the Chairmanship of the Holding Company.

10.21. Secretary, Steel, is the Head of the Department of Steel in the Ministry of Steel. It is his responsibility to advise the Minister to ensure that matters which require decisions or orders from Government are examined and disposed of in the Ministry. In respect of matters relating to SAIL, which require Government approval or sanction, the Secretary acts as the voice of interpretation and presentation of options to the Minister. He also coordinates the inter-action between his Ministry and other Ministries/Departments/Agencies of the Government on matters affecting the industry and the Holding Company.

10.22. Secretary also acts the focal point of liaison with the various parliamentary committees connected with his Ministry.

10.23. As the Chairman, SAIL, he is the Chief Executive responsible for all the activities of the Company. As Secretary, Steel, he deals only with such matters relating to SAIL as are required to be examined by the Government. In the past supervisory functions of the Public Sector Companies including techno-economic areas used to be done totally by the Secretariat. With the introduction of the Holding Company concept, through SAIL, these technical areas which could better be supervised and decided at a level different from the Government, have been delegated to SAIL. The autonomy allowed to the Holding Company has provided a measure of viability which was not available in the past.

10.24. It has been stated that the integration of the functions of the Secretary to the Government and Chairman, SAIL, in one, has helped to ensure that the Company is not just another link in the chain of decision making the onus of decision making in the strata levels and the preparatory work connected with the decision making at almost all levels have now passed on to SAIL. *Inter alia*, this has also allowed the Ministry to concentrate on issues of a policy nature, enforcement of norms and laws, laying down on national objectives and targets in relation to the performance and growth in steel sector without getting enmeshed in day to day operational problems.

10.25. Since the Chairman of the Steel Authority of India Ltd. is also the Secretary to the Government of India, it is possible for SAIL to avoid unnecessary duplication of work. It is also possible to ensure that financial matters are scrutinised only by technical persons.

10.26. Asked about the necessity for setting up SAIL when HSL was already there, the Secretary, Department of Steel stated that—

“Looking at the very large investment that we have made in the public sector ever since Independence, a view was being expressed and discussed; and Government had ultimately accepted it, viz. whether from the manner in which we have managed the public sector, we need to draw any lessons and consider whether there should be any important changes, or there should be no changes at all. It was perhaps felt that looking to the large resources ploughed into the public sector and that too from a largely poor economy the returns should be accelerated; and for that purpose we should study as to what could be done. We felt that it should be considered whether the management of the affairs of the public sector and its direction within Government should not be handled in a more professional manner by people having commercial or industrial experience. It does not relate merely to staffing; a composite view had to be taken. It was then felt that firstly, it would be of value to take the experience of some other countries not having ideals, situation or concepts similar to ours. We had also to look into the manner in which the private sector was managed. There were various holding companies whose purpose was essentially to coordinate the development of the companies which were their subsidiaries, to plan for their growth and at the same time to ensure that such planning and growth would subscribe to the prevailing socio-economic thought. But the important thing was that these companies were being managed and not run by the departments of government in those countries. They enjoyed a large measure of entrepreneurial independence and were governed largely by industrial and normal commercial prudence rather than, by what may perhaps be termed as overriding administrative consideration. It was in the light of these factors of experience and of our needs that they had decided that we should work out a model here; it was also decided that the direction of the holding company should concurrently be done, as far as the Government was concerned, by the very same individual; and also to delegate to the Steel Authority, some what larger powers.

These large powers were not the same in extent or degree. They were different particularly in the area of financial freedom and pricing, but nevertheless it certainly gave relatively larger freedom. After all we have been running a particular model of management in the public sector for over a quarter of a century, and so it was thought that we should develop something which would serve us in the years ahead more effectively, and there is no doubt that with the passage of time we will also learn from our own experience and make certain improvements and changes. But, essentially the crux of the whole thing was that within Government, i.e. at the Ministerial level and also at the level of the Chairman of the steel Authority, there should be one individual so that the decisions taken are expedited and a larger residual power is granted as far as the Steel Authority is concerned. When there is greater delegation of authority, two things happen. Firstly, more appropriate, correct and quicker decisions are taken, secondly over a period of time, the body or individuals who exercise that authority learn to have a greater sense of responsibility in dealing with the problems that they face.

10.27 Explaining the differences between holding company in India and these in foreign companies like Sweden, Italy and France, the witness stated that—

“There are several differences. Firstly, our holding company is just two years old but in these countries they are more than 10 or 15 years old. I agree that the political objectives of these countries are not entirely exactly like ours, but in these countries they had accepted the fact that if the holding companies were run efficiently, the entrepreneurial decisions should rest entirely with those companies in the matter of pricing, raising of funds, management etc. But in our country for various reasons, our leaders decided that the public sector should be run in a different way in which there is greater reliance on the governmental machinery, which was not the case in the running of the enterprises there. In the last two years there has been a small departure but any major departure will take a period of time assuming that we continue to believe in strengthening the concept that this is something which needs to be extended.”

10.28. In a written reply after evidence, the Department of Steel informed that basically, the holding companies in Italy are financial institutions utilised for husbanding Government resources for investment in crucial sectors of industry.

The holding companies in Italy are principally devices through which the Government seeks to gain control of crucial sectors of the economy and to promote growth and development in those sectors without, however, being directly responsible for the running of industrial enterprises. The system of their working relationship with Government is such that the Government ensures that they work on commercial lines, while, at the same time, they serve the social purposes of development of backward areas, creation of employment and preventing of the formation of monopolies, indigenous or foreign.

10.29. As far as SAIL is concerned, it is confined to the field of steel and associated input industries. Basically, it has been created to discharge only some of the responsibilities of Government in regard to the subsidiaries working under it. These responsibilities by the very nature of the structure and aims of the public sector in India, are more direct than in the case of Italy. Government's responsibility for the actual functioning of all public enterprises is direct and it is this responsibility which is now sought to be discharged in some measure by the Steel Authority of India Ltd. SAIL is not just an agent for Government's investment in the field of steel and associated input industries.

10.30. The concept of SAIL basically is, therefore, that it will be responsible for the coordinated and efficient functioning of public enterprises in the field of steel and associated input industries, and that it will discharge this responsibility on the basis of commercial and cost effective principles and at the same time ensure full compliance and furtherance of the socio-economic objectives of the setting up of the public sector. In addition, by the transfer to SAIL of the shares held by Government in private enterprises in the field of steel and associated input industries and through the exercise by SAIL of proxy in respect of shares held by public financial institutions in such enterprises, it is sought to be ensured that the operating programme and development of these enterprises are conducted in accordance with the National Plan.

10.31. As regards organisational changes which were considered essential to improve the production and for carrying out develop-

mental activities, the Chairman, SAIL informed the committee during evidence that—

“We should bring in the expertises from the plants, not only from the plants but also from the input industries and also in relation to transport and in relation to critical inputs and certain spares, etc. This organisational effort was achieved, with those firms.”

10.32. Asked to comment on (i) the appointment of non-technical persons with no experience in industry or management in the top managerial posts of development of the industry and (ii) following of civil service procedure, rather than industrial procedure, in industrial operation and assessment of performance, which are considered principal drawbacks of public sector undertakings, the Chairman, SAIL stated that—

“It is no good merely blaming any one group or individual that after Independence when we decided to set up industries in the public sector we filled up all the management posts by rallying all the executives who were available. This position had continued for the last 20 or 25 years. But for the last 2½ years since SAIL has been set up, you would ask us as to what were the changes which we had made. The running of the Steel Authority is based predominantly on experience if those when we have brought back from the plants. We have got people who are experience in finance, commercial operation of the plant, transport, production and in identification of principal constraints.”

He added that—

“The main structural change that we have made is to rely predominantly upon experience of those who are running the industry.”

10.33. Asked if Public Undertakings would be better managed by professional managers as against bureaucrats the witness stated that—

“but the people who manage the economic Departments of the Government also have experience which is valuable, but if a person has administrative experience alone that may not be the correct thing. That means you accept the principle and policy. It is a question of selecting the individual.”

10.34. In connection with the organisational set up of Steel Authority of India Ltd. the Secretary, Department of Steel stated that—

“To make SAIL more suitable to our needs, I think, the administrative set-up which we have evolved in the last two years is reasonable adequate but one should not take it as something of a permanent nature. There would be small changes and modifications as on went along.

Last year when there was acute power crisis we decided to set-up certain liaison in Calcutta and Delhi with the concerned authorities. The organisational structure must be so set-up as to sub-serve practical objectives and these practical objectives, while broadly they will be the same, could alter.

I would say we have not sacked any body. So, there is no question of savings. In a sector in which we have invested over Rs. 1500 crores we are not looking as to whether there are savings or additional expenditure of Rs. 10 to 15 lakhs. The important thing is that the SAIL has certainly been able to achieve in the last year higher production; improved profitability in 1973-74 with a forecasted position for the current year which is much better.”

10.35. In regard to the relations between the Government and the SAIL as a holding company on matters pertaining to policy guidelines and other executive decisions, the witness stated that:—

“The relations between the Government and the SAIL, have been fairly well defined.

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Policy in the case of any economic sector, certainly, in steel sector which is a very large sector, is really related to practical things and practically the objectives, namely, since we want to produce steel, where shall we produce it, where there will be expansion, what the financial investment will be, what will be the personnel, what will be the method of distribution, etc.

The policy on steel is the sum total of these various things—production, distribution, pricing, location of new plants, expansion, financial investment etc.”

10.36. The Chairman, SAIL added that in determining the production programme, i.e. what shall be the product mix half yearly, quarterly or annually, a detailed programme is prepared by the plants together with the J.P.C. The Steel Authority is itself fully involved through the production directorate etc. Then it goes to the Steel Priority Committee, a Government committee on which are represented Secretaries of the Ministries directly concerned. It is approved there.

10.37. Coming to the field of distribution, a number of changes had been made. Procedures hitherto followed had to be modified. The rationale for modifying these was developed by the commercial directorate of SAIL in close cooperation with large consumers, and steel plants. It has further been decided that these changes should be made from time to time in so far as they impinged on the authority of the Ministry, in consultation with the Steel Priority Committee and JPC and then with the approval of the Ministry and the Minister concerned. The Ministry thus approves those procedures.

10.38. Pricing is another important factor, where a major change has been made. He concluded that:

“Thus, where the Policy and its practices require government approval, it is taken, but the rationale of it is developed within the SAIL in close cooperation with other agencies, either government or banking or plants from time to time . . . . . The broad policy is that the entire public sectors in the context of the total economic sector, should have the commanding height, the means of production should be state owned. We not only follow that, but we execute it and if there are any further steps to be taken in a practical way, we do so. This is the accepted policy. Naturally, the approval of the Ministry will be there.”

10.39. In connection with the combining of the post of Chairman of an undertaking and Secretary of the Department, the Secretary, Department of Steel stated that:—

“First of all, it is not a question whether the Secretary should always be the Chairman or *vice-versa*. The important



thing is that there was a certain objective visualised in setting up the Steel Authority, in making some departure in the management of the affairs of a Public Sector field such as Steel. That is the fundamental thing. Next is the question of really giving effect to this objective. Last of all comes the selection of the individual. Therefore, it will depend upon the merits of each situation."

10.40. Asked if the holding the two posts viz Chairman, SAIL and Secretary, Department of Steel did not act as constraint in expressing opinion freely and frankly to Government, the Chairman, SAIL and Secretary, Department of steel stated during evidence that:—

"Sir, I have been expressing my views very frankly. On basic issues, which we are really concerned with, like affecting development of the total steel sector on matters of these types, so far no basic conflict has arisen. For the last two years no such occasion has arisen on a single point where I had to exercise my position as Chairman of the Board to tell the Board that you cannot take this decision. I am glad about this and I think in my well-run organisation where people understand the objectives generally there can be difference of opinion but they would get ironed out and necessary compulsive data and rationale would be developed to carve it out."

10.41. In this connection the Chairman explained how a proposal to set up a captive power plant which was approved by SAIL was ultimately turned down by the Government. He stated that:—

"As the Chairman and as the Board we recommended the installation of captive plants. As Secretary of the Ministry of Steel we supported this proposal from the Steel authority. This was a total view both from the Ministry as well as from the Steel authority but in discussing it with other agencies of Government, they came up with other data. We had to go through that. The Steel Department and Steel authority were at variance on this."

10.42. Asked if there is a change of bureaucratisation in combining the post of Secretary, Department of Steel and Chairman, SAIL, the witnesses stated that :—

"Bureaucratisation can happen even in a well-run private sector corporation. It is a question of whether we can

draw from practical experience. It is not something merely because it is a public sector corporation, if we bring in certain functional directors, people with a certain amount of experience in industrial management, management of technical personnel and financial matters, it could be very well run. If you do not have certain definite norms, certain objectives in the method of running year organisation, whether you are in the public sector or private sector, you can become bureaucratised. After all, what is bureaucratisation? It is merely an approach to the understanding of industrial and commercial problems which perhaps does not want, or does not generally tend to bring to bear out of lack of experience, to the performance either in commercial or economic matters the experience of running these units. If we do it, it can happen in both sides. I have seen it happening in some cases in the private sector. It is not as if it could happen only in the public sector. Now the solution is only to lay down certain rules. We have tried to ensure in the Steel Authority that we have at all levels men who had practical knowledge of industry as it works and, therefore, we have naturally 97 to 98 per cent of the people from the steel industry alone, and that is the guarantee against bureaucratisation.

Secondly, having done that, we try to work in a manner in which the principal object for which the company is set up is achieved, namely, higher production, greater productivity and better industrial relations. This should be the yardstick. In that we are trying to identify, not a whole host of problems, but the priority problems. This is the practical way of dealing with thins problems."

10.43. To promote healthy rivalry between the Steel plants and to streamline the organisation of steel industry, proposals are under consideration to establish separate companies for various steel plants, which are now under the charge of Hindustan Steel Ltd.

10.44. The reorganisation of the Hindustan Steel leading to each plant being constituted as a separate company is under consideration with a view to secure greater responsibility and effective delegation of authority to plant managements. This will also secure healthy competition between the plants so that production will achieve optimum levels. Already several functions which were hitherto being exercised at the head office of the Hindustan Steel

Limited are now being discharged by the General Manager of each steel plant.

10.45. The Department of Steel have further informed that a proposal to form separate companies for the steel plants under the Companies Act is presently under the consideration of Government. An important consideration is that the delegation of authority and the consequent autonomy should be through the existing law. In case the delegation of authority is through an administrative order, the same may not in all cases be as effective as if it were through the existing provisions of the law. While delegating authority by establishing separate companies so that the operations of the plants are carried out in the best interest of the company, it will also be ensured that the different companies will continue to work under the overall coordination and guidance of the Steel authority of India Ltd.

10.46. It may be added that the basic reason for giving more powers to the operational management is to ensure, *inter alia* the following :—

- (i) optimum production
- (ii) Sound industrial relations
- (iii) better distribution and consequently improved overall availability of pig iron and steel
- (iv) optimum profits.

10.47. In regard to delay in the reorganisation of HSL the representative of SAIL during evidence stated that :—

“When we formed the SAIL, at that time we clearly visualised that the Hindustan Steel would be reorganised. I do submit that there has been some delay. I think, the decision in the SAIL has been taken and this we are now carrying out and I hope it will be implemented early. I want to say that when you make any change it does bring about some amount of delay. When we formed the SAIL, there was some delay in that also. Any change whether in major industrial area or in the management of it, even with the best of objectivity meets with a certain amount of resistance and delay. I would submit that we are taking energetic steps to see that the delegation of powers may be complete and effective.”

10.48. It may be stated that HSI is separate company being managed by a Board of Directors of its own and has the autonomy in managing its own affairs. SAIL has not received any communication from HSL on the general question of autonomy as such.

10.49. The Committee desired to know the specific reasons for not making Bokaro Steel Plant initially as a subsidiary of Hindustan Steel Limited and incorporating it as a separate Company and now making Bokaro as well as HSL as subsidiary of SAIL. The Secretary, Department of Steel stated that "In the initial stage, Bokaro was made a separate Company and not a subsidiary of HSL." Subsequently, after some years, Government decided to set up the Steel Authority of India and Bokaro like other Steel Plants was made its subsidiary.

10.50. As regards the relationship between the authorities of SAIL and HSL and the extent of autonomy granted to and enjoyed by HSL, the Department of Steel in a note after evidence stated that so far as Hindustan Steel Limited (HSL) is concerned, it may be mentioned that it is a 100% subsidiary of Steel Authority of India Limited (SAIL) the shares held by the President of India in this company were transferred to SAIL on its incorporation in early 1973.

10.51. The Chairman of HSL, as in case of other subsidiaries, is appointed by the Chairman, SAIL with the approval of the President. Other directors of the Board of Directors of HSL as appointed by the Chairman, SAIL in consultation with HSL and their terms and conditions of appointment are settled by the Chairman, HSL with the approval of the Chairman, SAIL.

10.52. In regard to the relationship of SAIL with its subsidiaries, the Chairman SAIL during evidence stated that—

"When the Steel Authority was formed, we were very clear in our mind and we have tried to adhere to that that the Steel Authority cannot be and should not be a day-to-day operating company, it cannot and should not try to run the plants or the operations on a day-to-day basis, and that, as a consequence of that, the staff of the Steel Authority's Central Office must also remain thin. To take an example, Hindustan Steel is itself like a small sub-holding company, and we are taking steps to reorganise it. The Central Office had nearly 1,100 men. We were very clear that if the Steel Authority was not to get itself involved in

day-to-day operations, it should remain thin, and, therefore, the total staff has been kept a little above 200, and the majority of the staff, 95 to 97 percent, has been drawn from the steel industry and the steel plants, and some, of course, from some of the Government Departments.

In order to ensure more effective working and delegation, we have come to the conclusion that our major steel plants are, by national and even international standards, large enough in financial outlay, in the production value that they generate to and in the total financial implications which follow from that investment, to be constituted into separate independent companies. We believe that this would give them in effect legally the power to exercise the delegation of authority which they should. And, above all, we must take a slightly long-term view, not merely of the next 20 years but specifically of the next few years, so that the managements may devote attention to their specific problems. For example, today in a plant like Bhilai, which is yielding higher production and generating a larger surplus, the workers do feel that they should not suffer on account of the performance, let us say, another plant like Durgapur, that they should enjoy the fruits of their labour. This, I believe, will not be possible unless we have independent companies.”

10.53. About the organisational set up of Subsidiaries of SAIL, the Department of Steel stated during evidence that:

“We have taken the view that persons in public sector enterprises should not be birds of passage. We have introduced an amendment to our Articles of Association, with the approval of Government. The boards should be like any other company in India within the provisions of the Companies Act; the directors should retire by rotation; they should be there for three years. There should be a certain amount of stability in the building up of the board of management. Some directors cannot continue for their own reason; or we may feel the need for a change. Basically the boards' terms should be such that there is adequate time for them to understand the problems and contribute to it. Secondly, it is a question of building up fairly long term functional team there. There should be

a degree of stability in it and promotions also should be as far as possible within the steel hierarchy; upto a point it should be within the plant. It is only for the top first or second posts, we can see outside the plant but at other levels unless there are some reasons, promotions should be within the plant. Not that we should deny ourselves the opportunity to appoint, say, a really good expert. But basically this is the approach. We fully subscribe to that view and we are trying to implement it and give it a fair degree of stability over a period of years. If from the point of view and we are trying to implement it and give it a fair degree of stability over a period of years. If from the point of view of performance, from the point of view of ability to work as a team things are good, we should like it to continue. The Board of directors have to manage the entire affairs of the company and we should get all rounders, we should get people from the States in which the plant is located because a fair amount of liaison with the States concerned is necessary, especially in the public sector. We should like to have highly qualified in technological matters, people who would be in a position to contribute in industrial relations and personnel management. At one place we even put the president of the dominant union there because he brought a high degree of influence there and contributed there to the stability of the union. If we had engineers and technical people only, the board will be a lopsided one because the board has to consider production industrial finance, and a thousand other things."

### **B. Development of Steel Cadre**

10.54. One of the important functions of SAIL is to ensure career development, succession planning and the organisation and development of "Steel Cadre". There would be opportunities for promotion to the highest levels in SAIL and its subsidiaries to qualified personnel from within SAIL and its subsidiaries. At the same time, SAIL will continue also to recruit talented and qualified personnel from outside. The meaning of key posts by a proper policy of internal promotions and direct recruitment, when required, will be done. For this, SAIL and its subsidiaries have been exempted from the present Empanelment/Procedures.

10.55. Towards the development of steel cadre, SAIL has already taken the most important procedural step, namely the appointment of full-time Director of Personnel in the Steel Authority of India Limited. Appropriate policies are being worked out in the Personnel Directorate to develop the Steel cadre so as to ensure that selection/appointments in the various posts are made having regard to merit and objectivity and the interests of the company concerned.

10.56. As to the concrete steps taken to develop a 'Steel Cadre' in SAIL, the Chairman, SAIL and Secretary, Department of Steel stated that:—

"I would like to deal with it in two ways: first is the formulation and setting up of the cadre as any other service and call it as the Steel Cadre, formulate rules and regulations, grades, methodology of promotion, transfers etc. The way we had looked at it during the last 1½ years is that it is better to defer it for short time instead of merely first giving a formalistic shape to it; we must give content to it. The cadre will mean our having to deal with hundreds of employees. As such, in giving a practical shape to it, a climate of acceptability has to be created, Hitherto, Hindustan Steel was concerned mainly with its own divisions at Bhilai, Rourkela and Durgapur. We are now concerned also with gigantic units like Bokaro. We were also concerned, till yesterday, with BCCL; we are now concerned with NMDC. We examined the manner in which selection for promotion to critical posts should be done by the plant and by the committee, in an overall manner. We come to a conclusion, not only in the Steel Authority but also in consultation with the chief executives of the steel plants, so that when opportunities arose in Bokaro, we should post some one available there. We pulled the man from Bhilai and posted him to Bokaro. The first point is that of intertransferability. Certain posts will be considered on an all-India basis; and certain others to improve recruitment therein. We are not satisfied completely with the steps taken in that direction. These things relate to action taken to try sharpen the training, recruitment, placement, and selection of cadre. I hope we will soon reach stage when we would think that the time was mature enough to give a formalistic shape to it."

10.57. The Committee note that the basic idea of setting up of SAIL has emerged out of the experience of the manner in which

the public sector enterprises were run, the desire to accelerate the returns from the enterprises in which much resources were ploughed and to handle the public sector enterprises in a more professional manner by persons having commercial and industrial experience. The Committee however find that there are differences between the holding companies in Sweden, Italy and France where the holding companies are mostly financial institutions and devices through which the Government seeks to gain control over crucial sectors of economy though they also observe the basic concept that entrepreneurial decisions should rest with those companies.

10.58. The Committee are informed that the concept of SAIL basically is that it would be responsible for the coordinated and efficient functioning of public enterprises in the field of steel and associated in-put industries and that it will discharge this responsibility on the basis of commercial and cost effective principles and at the same time ensure full compliance and furtherance of the socio-economic objectives of the setting up of the public sector and that the operational programme and development of the enterprises are conducted in accordance with the national plan. The Committee have already given their observations in regard to the part played by SAIL in the coordination of in-puts, cost of production, etc., in the relevant chapters of this report. The Committee would, however, like to point out that though at the time of formation of SAIL the Bharat Coking Coal Limited and Washeries had been made the subsidiaries of SAIL as a holding company, these have now been taken out of SAIL and transferred to the Department of Coal. The concept, therefore, that all undertakings dealing with in-puts required for the steel production should be under one umbrella of SAIL, has thus got modified to some extent. Although the Committee have been informed that coordination is maintained by SAIL even after such a change with the Department of Coal, the Committee would like to watch the functioning of this arrangement for some time after the change.

10.59. The Committee also note that the Chairman of the Steel Authority of India besides being the Chief executive of the company is the Secretary of the Department of Steel. It was stated that the rationale behind this decision emanated from the concept that the holding companies should exercise entrepreneurial functions on behalf of the Government, marshal and operate investments in areas considered as core and strategic; the operations and management should be run on sound industrial and commercial principles; and performance evaluation of the holding company and the subsidiaries



should be undertaken in the context of physical norms and targets laid down by the Government. It has been claimed that the individuality of both the roles has been preserved and definite areas have been visualised and thus not only the necessary leadership and direction are provided but the accountability is also preserved.

10.60. With the introduction of holding company concept through SAIL, the technical areas which could be better supervised and decided at levels different from Government have been delegated to SAIL and the autonomy allowed to the holding company has provided a measure of viability which was not available in the past. The integration of the office of Secretary to the Government with Chairman of SAIL, it has been claimed, has helped to ensure that the Government is not just another link in the chain of decision making. This has allowed the Ministry to concentrate on issues of policy nature, enforcement of norms and laws, national objectives and targets in relation to performance and growth in sales sector without getting enmeshed in day-to-day problems.

10.61. The Committee, in this connection, would like to invite the attention of SAIL/Government to paragraph 8.12 of their 70th Report (4th Lok Sabha) (1969-70) on India Tourism Development Corporation where they have observed as follows:—

“As pointed out above, the Estimates Committee and the Committee on Public Undertakings had unmistakably commented upon the inadvisability of inclusion of a Secretary or Additional Secretary in the management of public sector undertakings. In spite of the above recommendation, it is noticed with surprise that Additional Secretary of the Government has been appointed as part-time Chairman of India Tourism Development Corporation as recently as in 1970. The Committee have taken strong exception to the deliberate flouting of the recommendations of Parliamentary Committee and of Administrative Reforms Commission and would recommend that the recent appointment of Chairman of Board of Directors of I.T. D.C. should be immediately reconsidered in the light of the recommendations earlier made and already accepted by the Government.”

This recommendation has been accepted by Government.

10.62. The Committee would also like to invite the attention of SAIL/Government to the recommendation made in paragraph 5.23

of their 68th Report (4th Lok Sabha) (1969-70) on Bokaro Steel Ltd., where they have observed "The Committee regret to note that the Secretary of the Ministry of Iron and Steel was appointed as Chairman of Bokaro Steel Ltd., on 4th February, 1964 contrary to decision of Government taken as early as November, 1961 that no Secretary of the Ministry/Department shall be a member of any board and in disregard to the recommendation of the Estimates Committee and accepted by Government." In their 14th Report (5th Lok Sabha) (1971-72) on Action Taken, the Committee have reiterated their recommendation and desired that the recommendation of the Administrative Reforms Commission that "no officer of Ministry should be made Chairman of a public undertaking nor the Secretary of the Ministry be included in its board of management" which was accepted by Government in respect of industrial undertakings should be strictly followed.

10.63. The Committee observe that, inspite of Government having accepted the recommendations of the Committee on Public Undertakings in paragraph 8.12 of their 70th Report (1969-70) and their recommendation in para 5.23 of their 68th Report (1969-70) which had been reiterated by the Committee. the Secretary of the Ministry has also been appointed as the Chairman of SAIL contrary to these recommendations. However, the Secretary has tried to explain the position during the evidence by stating that "it is not a question whether Secretary should always be the Chairman or vice versa The important thing is the objective visualised in setting up the Steel Authority and really giving effect to this objective." In view of this statement, and the improvement noticed after formation of SAIL as a holding Company which is a novel experiment, the Committee would like to watch the functioning of this arrangement for some more time, before they could give their observations in this regard.

10.64. The Committee were informed that the organisational set up evolved in the last few years of working of SAIL has been found to be reasonably adequate. The Committee, however, agree with the Secretary, Department of Steel, that the organisational structure should be such as to subserve the practical objectives for which the SAIL has been created, and caution SAIL/Government that the organisation should not proliferate into another parallel secretariat or Ministry and thus add to the administrative overheads. This aspect needs to be most carefully watched and any tendency to inflate levels of supervisions and overheads firmly shackled right from the beginning.

10.67. The Committee note that at the time of formation of the SAIL it was clearly visualised that Hindustan Steel Ltd. would be reorganised and the reorganisation of HSL leading to each plant being constituted as a separate company is intended to secure greater responsibility and effective application of authority to plant managements. It has also been stated that the proposals are under consideration to establish separate companies for various steel plants which are under the charge of HSL. The Committee are informed that the object of giving more powers to operational management is to ensure optimum production, sound industrial relations, better distribution and consequently improve over-all availability of pig iron, steel and optimum profits. The Committee regret to note that though it is now more than 2 years since SAIL has been in existence, the reorganisation of HSL has not been finalised and the relationship continues to be amorphous. The representative of SAIL has admitted during evidence that "I do submit that there has been some delay. I think the decision in the SAIL has been taken and we are now carrying it out and I hope it will be implemented early." In the opinion of the Committee, apart from the fact that there is overlapping and avoidable duplication of overheads and absence of a clear line of command, such a situation cannot make for smooth functioning. The Committee would like Government to expedite decision regarding reorganisation of HSL.

10.66. The Committee note that already SAIL has been taking steps to strengthen the boards of the subsidiaries with a view to building up a fairly long-term functional team to manage the entire affairs of the company in its various facets—production, industrial finance, etc. The Committee would like to watch the developments in this regard.

10.67. The Committee note that one of the important functions of SAIL is to ensure career development, succession planning and the organisation and development of steel cadre. For this purpose, SAIL and its subsidiaries have been exempted from the present empanelment procedures and it has already taken the most important procedural step of appointing a full time Director of Personnel in the organisation. It has also been stated that appropriate policies are being worked out to develop the steel cadre so as to ensure that selection/appointments in the various posts are made having regard to the merit, objectivity and the interest of the company concerned. The Committee were informed that it has been decided to defer the formulation of rules, regulations, grades, methodology of promotion, transfers, etc. and setting up of the cadre for a short time. The Chairman, SAIL and Secretary, Department of Steel has,

however, admitted during evidence "we are not satisfied completely with the steps taken in that direction. These things relate to action taken to try to sharpen the training, recruitment, placement and selection of cadre. I hope we will soon reach a stage when we would think that the time was mature enough to give a formalistic shape to it." The Committee recommend that the necessary procedural formalities and the rules and regulations in this regard and the formation of steel cadre and the relationship of HSL and SAIL should be completed at an early date so that the staff and officers working in SAIL and its subsidiary units are clear about their service rules and regulations and their position vis-a-vis the Steel cadre. The Committee would like to be informed of the action taken in this regard.

## XI

### FINANCIAL MANAGEMENT

#### A. Capital Structure

11.1. The Steel Authority of India Limited was formally incorporated on January 24, 1973 with an authorised capital of Rs. 2,000 crores. The paid up capital as on March 31, 1974 was Rs. 1,326 crores (including share money of Rs. 8.5 crores).

11.2 The shares in the Companies listed below and held by the President of India were transferred to the Steel Authority of India Limited and the Articles of Association of these Companies were accordingly amended to make them subsidiaries of SAIL. Action in respect of these were completed on the following dates :—

---

|  |           |
|--|-----------|
| 1. Hindustan Steel Limited . . . . .                         | 21-3-1973 |
| 2. Hindustan Steel works Construction Limited . . . . .      | 28-3-1973 |
| 3. Bokaro Steel Limited . . . . .                            | 22-3-1973 |
| 4. Salem Steel Limited . . . . .                             | 31-7-1973 |
| *5. Bharat Coking Coal Limited . . . . .                     | 16-3-1973 |
| 6. National Mineral Development Corporation Limited. . . . . | 21-3-1973 |

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\*NOTE : The work relating to Bharat Coking Coal Limited has since been transferred to the Ministry of Energy (Deptt. of Coal) and it is no longer is a subsidiary of SAIL.

11.3. The above companies are now fully owned subsidiaries of the Steel Authority of India Limited.

11.4 The Central Engineering & Design Bureau (CEDB) which was a Division of Hindustan Steel Limited was reorganised into a separate Company with its independent Board of Management. The new Company—the Metallurgical and Engineering Consultants (India) Ltd. (MECON)—was registered as a subsidiary of SAIL on March, 31, 1973.

11.5 Majority shares in Bolani Ores Limited were transferred to SAIL by the President of India on July 5, 1973 and its Articles of

Association was suitably amended. Similarly, the shares held by the President in Metal Scrap Trading Corporation have been transferred on August 8, 1973 and its Articles of Association was amended.

11.6. The equity holding of the President of India in Mysore Iron & Steel Limited and Indian Iron & Steel Company Limited have been transferred to SAIL.

11.7. The position in respect of capital employed in the principal subsidiaries of SAIL at the time of formation of SAIL and capital structure and investment position in the various companies in which SAIL has acquired interest as on 31.3.1974 is shown at appendices respectively:

STEEL AUTHORITY OF INDIA LIMITED

(Rs. in crores)

|  | Authorised share capital | Paid up capital as on 31-3-73 | Govt. holdings before transferred to SAIL | Govt. share transferred to SAIL up to 31-3-74 |
|--|--------------------------|-------------------------------|---|---|
| 1.   | 2.                       | 3.                            | 4.  | 5.  |
| 1. Hindustan Steel Ltd. .                                | 700                      | 610.85                        | 610.85                                    | 610.85  |
| 2. Bokaro Steel Limited . .                              | 600                      | 600.00                        | 600.00                                    | 600.00  |
| 3. Salem Steel Limited*                                  | 100                      | 0.35                          | 0.35                                      | 0.05  |
| 4. Mysore Iron & Steel Limited                           | 50                       | 33.00                         | 13.20                                     | 13.20   |
| 5. Indian Iron & Steel Co. Ltd.                          | 40                       | 27.58                         | 0.0048                                    | 0.0048  |
| 6. Hindustan Steel works construction Ltd.               | 1                        | 0.50                          | 0.50                                      | 0.50  |
| 7. Metal Scrap Trade Corpn. .                            | 2                        | 0.20                          | 0.16                                      | 0.16  |
| 8. Bharat Coking Coal Limited .                          | 30                       | 1.00                          | 1.00                                      | 0.85  |
| 9. National Mineral Development Corporation Ltd. .       | 100                      | 76.04                         | 76.04                                     | 76.04   |
| 10. Bolani Ores Limited . .                              | 1                        | 1.00                          | 0.505                                     | 0.505   |
| 11. Manganese Ores India Ltd. .                          | 6                        | 2.15                          | 0.366                                     | 0.366   |
| 12. Metallurgical Engineering Consultants (India) Ltd. . | 4                        | ..                            | ..  | ..  |
|  | 1654                     | 1352.67                       | 1302.9758                                 | 1302.5258                                     |

SAIL

2000.00 1,294.4135\*\*

\*Rs. 30 lakhs worth of shares in Salem Steel Ltd. are in process of transfer.

\*\*As on 31-3-74—Rs. 1,325.99 Crores.

## INVESTMENT POSITION\*

(Rs. in lakhs)

| Sl. No. | Name of the Company                                  | As on<br>31-3-73<br>(Rs.) | As on<br>31-3-74<br>(Rs.) | As on<br>31-3-75<br>(Rs.) |
|---------|--|---------------------------|---------------------------|---------------------------|
| 1.      | Hindustan Steel Ltd.                                 | 60833.95                  | 62358.00                  | 66422.00                  |
| 2.      | National Mineral Development Corpn.Ltd.              | 6999.97                   | 8204.00                   | 8404.00                   |
| 3.      | Bharat Coking Coal Ltd.                              | 85.01                     | 185.01                    | ..                        |
| 4.      | Bokaro Steel Limited                                 | 59999.95                  | 60000.00                  | 60000.00                  |
| 5.      | Hindustan Steel Works Construction Limited           | 49.95                     | 50.00                     | 50.00                     |
| 6.      | Salem Steel Limited                                  | 4.95                      | 356.53                    | 812.00                    |
| 7.      | Bolani Ores Limited                                  | 50.49                     | 50.50                     | 50.00                     |
| 8.      | Metal Scrap Trade Corporation Limited                | ..                        | 15.99                     | 16.00                     |
| 9.      | Indian Iron & Steel Company Limited                  | 0.46                      | 32.43                     | 106.54                    |
| 10.     | Manganese Ore Limited                                | 36.62                     | 36.62                     | 36.62                     |
| 11.     | Mysore Iron & Steel Limited                          | 1320.00                   | 1320.00                   | 1320.00                   |
| 12.     | Metallurgical & Engineering Consultants (India) Ltd. | ..                        | 0.05                      | 0.05                      |
| 13.     | SAIL International Ltd.                              | ..                        | ..                        | 1.00                      |
|         |  | 129381.35                 | 132609.13*                | 137219.27**               |

\*Excluding the following Loans

upto 31-3-74\*

upto 31-3-75\*\*

|  |                 |                   |
|--|-----------------|-------------------|
| Bokaro Steel Limited                             | Rs. 110 crores  | Rs. 252.14 crores |
| National Mineral Development Corporation Limited | Rs. 7.00 crores | Rs. 18.33 crores  |
| Hindustan Steel Works Construction Ltd.          | Rs. 0.8 crores  | Rs. 1.80 cr       |
| Bharat Coking Coal Limited                       | Rs. 0.8 crores  | Rs. 14.80 crores  |

## B. Working Results

11.8. The Department of Steel in a note stated that the working

results of the Steel Plants during the last three years were as follows :—

|   | (Rs. in crores)        |                 |                 |                    |
|---|------------------------|-----------------|-----------------|--------------------|
|   | Profit (+)<br>Loss (—) |                 |                 |                    |
|   | 1971-72                | 1972-73         | 1973-74         | 1974-75            |
| Bhilai Steel Plant . . . . .            | (—)4.30                | (+)6.00         | (+)17.78        | 38.70              |
| Rourkela Steel Plant . . . . .          | (—)6.89                | (+)1.19         | (+)9.74         | 18.15              |
| Durgapur Steel Plant . . . . .          | (—)27.52               | (—)25.72        | (—)18.44        | 14.32              |
| Alloy Steels Plant . . . . .            | (—) 5.23               | (—) 6.29        | (—) 4.80        | 1.96               |
| Coal Washeries . . . . .                | (+) 1.17               | (—) 0.43        | (+) 0.87        | 1.07               |
| Fertilizer Plant . . . . .              | (—) 1.71               | (—) 2.12        | (—) 1.28        |                    |
| Provision for stock transfers . . . . . | (—) 0.37               | (—) 0.43        | (+) 0.76        | (—)0.03            |
| <b>Total HSL . . . . .</b>              | <b>(—)44.85</b>        | <b>(—)27.80</b> | <b>(+) 4.71</b> | <b>(+)48.24</b>    |
| Bokaro Steel Plant . . . . .            | Nil                    | (—) 5.45        | (—)10.43        | (—)11.0<br>(+)36.0 |

11.9. The main reasons which affected the working results of the steel plants during 1973-74 were:—

- (i) Power
- (ii) Raw materials movement
- (iii) Industrial relations

11.10. The loss in production 1973-74 due to the above factors as well as other internal causes has been estimated as below :

|                                  | (Tonnes)<br>Saleable Steel |
|----------------------------------|----------------------------|
| <i>External</i>                  |                            |
| —Power . . . . .                 | 151,300                    |
| —Raw material movement . . . . . | 120,570                    |
| <i>Internal</i>                  |                            |
| —Industrial Relations . . . . .  | 133,000                    |
| —Other causes . . . . .          | 196,010                    |
| <b>TOTAL . . . . .</b>           | <b>500,880</b>             |



11.11. The profits in the year 1973-74 would have been more by Rs. 38.72 crores but for the loss in net contribution to that extent consequent to the decrease in production due to the above mentioned factors.

*A. Estimated loss in net contribution*

|   | (Rs. in crores) |
|---|-----------------|
| In sufficient power input . . . . .               | 9.39            |
| Insufficient raw material input . . . . .         | 8.57            |
| Accumulation of movable finished stocks . . . . . | 3.19            |
| <i>B. Internal constraints :</i>                  |                 |
| Industrial relations . . . . .                    | 10.08           |
| Other deficiencies . . . . .                      | 7.49            |
| <b>TOTAL</b> . . . . .                            | <b>38.72</b>    |

11.12. Whilst the price increases brought an extra income of Rs. 47.02 crores, the following escalations offset the advantages :

|  | (Rs. in crores) |
|--|-----------------|
| Raw material prices . . . . .              | 19.42           |
| Stores & Spares prices . . . . .           | 7.58            |
| Power, fuel & Water rates . . . . .        | 3.18            |
| Increase in DA and related costs . . . . . | 5.69            |
| Increase in rates of demurrage . . . . .   | 3.12            |
| <b>TOTAL</b> . . . . .                     | <b>38.99</b>    |

11.13. The net gain therefore on that score was Rs. 8.03 crores (Rs. 47.02—Rs. 38.99).

11.14. In respect of Bokaro Steel Plant the impact of depreciation was of the order of Rs. 9.85 crores out of a loss of Rs. 10.43 crores for the year 1973-74.

11.15. It was stated that a few profitability and cost ratios of Hindustan Steel Ltd. *vis-a-vis* some foreign companies would give some idea, on the earning capacity of Hindustan Steel Ltd. and abroad. (The figures of the foreign companies were derived figures as nobody really gave their internal position. Also in their cases figures for 1971 could only be obtained.)

## RATIOS

| Ratio  | Clockner<br>Workage<br>Germany<br>1971 | Nippon<br>Japan<br>1971 | British<br>Steel<br>Corpn.<br>1971 | Hindustan<br>Steel<br>1974 |
|--|--|-------------------------|------------------------------------|----------------------------|
| Ration of operating cost to Net sales (%) .                    | 95                                     | 93                      | 97                                 | 98                         |
| Net profit (before tax) to Sales (%) . . . . .                 | 2                                      | 2                       | 5                                  | 1                          |
| Return on Equity (before in interest and<br>tax) (%) . . . . . | 7                                      | 7                       | 4                                  | 4*                         |

\*It may be mentioned here that Hindustan Steel Ltd. has paid Rs. 543 crores by way of excise duty since its inception. On the estimated production by 31st March, 1975 it is expected that Hindustan Steel Ltd. would pay about Rs. 120 crores as excise duty in the current financial year (1974-75).

11.16. The table below shows the profits of HSL plant-wise in 1974-75 as compared to 1973-74.

TABLE I

Profits (+)/Loss (—) after depreciation and interest of different units of HSL in 1974-75 as compared to 1973-74.

(Rs. in crores)

|  | Actuals<br>for<br>1973-74 | Actuals<br>for<br>1974-75 | Increase<br>in<br>1974-75<br>over<br>1973-74 |
|--|---------------------------|---------------------------|--|
| Bhilai Steel Plant . . . . .               | (+)17.78                  | (+)38.70                  | (+)20.92                                     |
| Rourkela Steel Plant . . . . .             | (+) 9.74                  | (+)18.15                  | (+) 8.41                                     |
| Durgapur Steel Plant . . . . .             | (—)18.44                  | (—)14.32                  | (+)0 4.12                                    |
| Alloy Steels Plant . . . . .               | (—) 4.80                  | (+) 1.96                  | (+) 6.76                                     |
| Fertilizer Plant . . . . .                 | (—) 1.20                  | (+) 2.71                  | (+) 3.91                                     |
| C. C. W. O. . . . .                        | (+) 0.87                  | (+) 1.07                  | (+) 0.20                                     |
| Provision for unrealised profits . . . . . | (+) 0.76                  | (—) 0.03                  | (—) 0.79                                     |
| <b>TOTAL . . . . .</b>                     | <b>(+) 4.71</b>           | <b>(+)48.24</b>           | <b>(+)43.53</b>                              |

11.17. It has been stated that the better performance during 1974-75 in the four operating steel plants compared to 1973-74 has been as a result of:

- (a) Higher production of steel pig iron and fertilizers;

- (b) Decision to maximise production of saleable steel instead of the earlier emphasis on Ingot Steel.
- (c) More efficient utilisation of raw materials—A significant contribution to profit was made by lowering the coke consumption rate at Bhilai and Rourkela resulting in a saving of Rs. 1.8 crores. Durgapur's efficiency in this regard deteriorated.
- (d) Reduction in overhead costs resulting from their distribution over a larger volume of production and variations in depreciation provisions.
- (e) With better financial management, the full impact of higher interest charges was partially mitigated.
- (f) Important cost reductions achieved in the per tonne cost of demurrages, wharfages, loss in transit and handling cost.
- (g) Important changes in distribution system resulting in faster movement of steel from plants to customers and consuming centres, wider spread of steel in the economy and bringing some consequential financial advantages to steel plants.

11.18. Improvement in production in 1974-75 resulted in increase in profit by Rs. 19.86 crores for HSL as a whole as compared to 1973-74 as indicated below :—

| Name of Plant   | Saleable Steel   |                                    |
|---|--|------------------------------------|
|   | Increase in production in 1974-75 compared to 1973-74 (000 tonnes) | Increase in profits (Rs. in lakhs) |
| Bhilai Steel Plant . . . . .                              | 11.00  | 68                                 |
| Rourkela Steel Plant . . . . .                            | 76.00  | 726                                |
| Durgapur Steel Plant . . . . .                            | 143.00   | 888                                |
| Alloy Steels Plant . . . . .                              | 1.6  | 91                                 |
| Fertilizer Plant (Calcium Ammonium Nitrate—25%) . . . . . | 60.8   | 213                                |
|   |  | <u>1986</u>                        |

*Increase in production of pig iron Saleable*

| Name of the Plant              | Increase in production (000 tonnes) | Increase in profits (Rs. in lakhs) |
|--------------------------------|-------------------------------------|------------------------------------|
| Bhilai Steel Plant . . . . .   | 29                                  | 144                                |
| Rourkela Steel Plant . . . . . | 55                                  | 146                                |
| Durgapur Steel Plant . . . . . | 27                                  | 100                                |
|                                | <u>111</u>                          | <u>390</u>                         |

11.19. There was also increase in production of one lakh tonnes of ingot steel in Bhilai improving the profits by Rs. 2.6 crores. Similarly increase in production of sophisticated Alloy Steels and intermediate products brought about additional profit of Rs. 3.52 crores to Alloy Steels Plants. There was also additional earnings from increase in production of by-products like Benzol products, tar products etc. and higher stockyard sales.

11.20. Thus increase in profits in 1974-75 covering the four operating public sector steel plants, the principal contribution, it is stated, has been made under the following heads :

|  | (Rs. in crores) |
|--|-----------------|
| (i) Higher production of Saleable Steel . . . . .  | 1 9.86          |
| (ii) Higher production of saleable pig iron . . . . .  | 3.90            |
| (iii) Higher production in Bhilai Steel Plant of ingot steel to meet their own requirements of saleable steel . . . . .                                      | 2.60            |
| (iv) Higher production of sophisticated alloy steels and intermediate products at the Alloy Steels Plant . . . . .   | 3.52            |
| (v) Higher production of intermediates and by-products especially at Bhilai and Rourkela, e.g. Tar Products, Benzol Products and Ammonium Sulphate . . . . . | 1.35            |
| (vi) Increase in net income from higher sales through Stockyards . . . . .   | 5.10            |
|  | <u>36.33</u>    |

11.21. It has also been stated that the profit in 1974-75 would have been substantially higher than the figure of Rs. 48.24 crores but for some unavoidable cost escalations on a number of accounts which were beyond the control of management and the company, as for example increase in D.A. increase in fuel costs, impact of

**Central Finance Budgets over raw material cost power tariff, increase in price of raw material stores and spares.**

11.22. It has been stated that ever since the formation of SAIL, it has been devoting special attention towards stepping up production from Steel Plants and subsidiaries. Since Steel production in 1973-74 had suffered seriously mainly on account of impact of certain external factors like power shortage, coal shortage and industrial unrest in the Railways, the efforts of SAIL in 1974-75 were directed to bringing about improvement in these areas which was achieved through close and effective coordination and liaison with concerned agencies.

11.23. The targets of production for 1974-75 were finalised by SAIL in consultation with these agencies and after taking into account the likely availability of all essential inputs and after drawing up a linkage plan for the movement of raw materials from the sources of supply to the steel plants. The targets were also discussed, among others, with the representatives of the workers at the plant level and with the members of the Joint Negotiating Committee for the Steel Industry so as to ensure effective cooperation of the workers in the achievement of these targets.

11.24. The yearly plan of production was broken down into monthly targets which were regularly monitored by SAIL. During the Railway strike in May, 1974, SAIL coordinated the operations of all the steel plants in order to meet the situation created by the strike and its aftermath in a planned manner. Continuous coordination was maintained with the Railways in the matter of movement of principal inputs like coking coal, iron ore and other raw materials and despatch of finished products. Initially, the meetings were held monthly but their frequency was increased to fortnightly and weekly meetings, ultimately culminating in daily coordination with the Railway Board and also monitoring through a Monitoring Cell at Calcutta at the field level every day. This coordination involved the organisations producing coal, coal washeries, Coal Controller, General Managers and Chief Operating Superintendents of the concerned Railways and the steel plants. This purposeful coordination with the Railways has borne fruit in a large measure. The decision of SAIL to move steel in full train loads rather than in wagon loads and to limit the despatches from main producers to the major consumers numbering 800 and to distribute larger quantities through the stockyards has greatly facilitated the clearance of finished products.

11.25. In regard to the supply of coking coal to the steel plants apart from coordination with the Department of Coal and the coal producing organisations, the movement of coal by road to nearby plants, viz., Bokaro, Durgapur and IISCO was augmented. The movement of washed coal by ropeway from Chasnalla washery to Burnpur was also stepped up from the level of 1,300 tonnes to 2,000 tonnes per day. New sources of coking coal from Damua-Kalichappar (M.P.) were tried in Bhilai and the coal, being found acceptable, was utilized to the extent of 30,000 to 35,000 tonnes per month.

11.26. Close coordination was also maintained with the Ministry of Energy, State Governments concerned and the DVC authorities for the supply of maximum power to the steel plants. The internal generation of power at Rourkela was improved significantly. The transfer of power from DVC to the Orissa State Electricity Board to the extent of 25MVA for supplying to the Rourkela Steel Plant from October, 1974 was arranged with the Department of Energy.

11.27. It was decided by SAIL to lay special emphasis on the maximisation of production of saleable steel as compared to the production of ingot steel. In this context, the transfer of 22,440 tonnes of ingots from Bokaro and 42,680 tonnes of ingots from Durgapur to Bhilai was arranged for conversion into saleable steel.

11.28. The additional increase of Rs. 5.10 crores on account of higher sales through stockyards was the direct result of the various measures taken by SAIL for bringing about improvements in the system of distribution.

11.29. It has been stated that among the subsidiaries of SAIL the NMDC made a profit of Rs. 1.2 crores during 1974-75 as against a profit of Rs. 1.58 crores during 1973-74.

11.30. The Hindustan Steel Works Construction Ltd. earned a profit of Rs. 104 lakhs during 1974-75 as against a profit of Rs. 94 lakhs in the previous year.

11.31. MECON earned a profit of Rs. 60 lakhs during 1974-75 as compared to a profit of Rs. 45 lakhs during 1973-74.

11.32. Metal Scrap Trade Corporation earned a profit of Rs. 20 lakhs during the period October, 1973 to March, 1975.

11.33. SAIL International made a profit of Rs. 11.25 lakhs, during 1974-75. Bolani Ores Limited suffered a loss of Rs. 38 lakhs for the year ending 30th September, 1974 and Bharat Refractories suffered

a loss of Rs. 8.91 lakhs during the period 22-7-74 to 31-3-1975. The loss for the period from 19-2-72 to 21-7-74 was stated to be Rs. 15.78 lakhs.

11.34. Thus during 1974-75 SAIL with its subsidiaries made a profit of Rs. 39.27 crores as against a loss of Rs. 2.75 crores during the previous year.

11.35. The Committee note that for the first time the Hindustan Steel Ltd. showed a profit of Rs. 4.71 crores in 1973-74 as against losses to the tune of Rs. 44.85 crores in 1971-72 and Rs. 27.80 crores during 1972-73 respectively. The Committee also find that during 1974-75 the Hindustan Steel Limited made a profit of Rs. 48.24 crores compared to the profit of Rs. 4.71 crores during 1973-74. The Committee also note that the price increase allowed during 1973-74 brought an extra income of 47 crores against which the cost of escalations in running the plant to the tune of about Rs. 39 crores was set off, resulting in a net gain of Rs. 8 crores. The Committee were further informed that the profit during 1973-74 would have been more by Rs. 38.72 crores but for the loss consequent on the decrease in production to the extent of 5 lakhs tonnes of saleable steel due mainly to power, raw material, transport and industrial relation problems. In respect of Bokaro Steel, the Committee note that the loss during 1974-75 has been slightly higher than in 1973-74. The Committee are informed that the increase in profit during 1974-75 has been the result of higher production of steel, pig iron and fertilizers, decision to maximise production of saleable steel instead of the earlier, emphasis on ingot steel, more efficient utilisation of raw materials and reduction in overhead cost resulting from better distribution of products, important cost reduction achieved in the per tonne cost of demurrages, wharfages loss in transit, handling cost. It has been stated that since the formation of SAIL, it has been devoting special attention towards stepping up of production, from steel plants and subsidiaries, bringing about improvement in inputs through close and effective coordination and liaison with concerned agencies, fixation of realistic targets, continuous coordination with Railways in the matter of movement of principal inputs, providing of balancing facilities in washeries, coordination with the Ministry of Energy and the State Governments for supply of power etc. The Committee are also informed that the over-all profits including the subsidiaries during 1974-75 amounted to Rs. 38.27 crores as against a loss of Rs. 2.75 crores during 1973-74. In regard to the constraints about the inputs, the Committee have already given their comments in the relevant chapters of the report.

The Committee hope that efforts would continue to be made by SAIL and Government to obtain better utilisation of installed capacity with particular reference to removing bottlenecks coming in the way of greater production by providing balancing equipment, ensuring regular schedule of maintenance, assuring supply of inputs etc., achieve efficiency and economy in cost of production of steel with particular reference to OMS and quantity and value of inputs, minimising defectives and rejects, reduce distribution costs and thus improve the performance and profitability of SAIL so that larger resources may be generated for further development and expansion.

11.36. The Committee note that the ratio of operating cost to net sales was 98 per cent. in the case of Hindustan Steel Limited in 1974 as compared to 93 per cent. in Japan, 95 per cent. in Germany and 97 per cent. in Britain in 1971; the ratio of net profit (before tax) to sales was 1 per cent. in HSL, 2 per cent. in Japan, 2 per cent. in Germany and 5 per cent. in Britain; and the return on equity (before interest and tax) was 4 per cent. in HSL, 7 per cent. in Japan, 7 per cent. in Germany and 4 per cent. in Britain. The Committee would like the SAIL to make concerted efforts to reduce the operating cost in its steel plants by improving its productivity and performance, better utilisation of raw materials so that it will be possible for SAIL to make steel available at most competitive prices and thus provide fillip to engineering industries and also earn the much needed foreign exchange through exports.

**NAWAL KISHORE SHARMA**

Chairman

Committee on Public Undertakings.

New Delhi

January 16, 1976

Pausa 26, 1897 (Saka)



**APPENDIX I**  
(Vide Para 2.1)

*Statements indicating domestic demands for Steel the Fifth, Sixth and Seventh Plan*

('000 tonnes)

|   | Fifth Plan | Sixth Plan |         | Seventh Plan |
|---|------------|------------|---------|--------------|
|   | 1978-79    | 1981-82    | 1983-84 | 1985-86      |
| <i>Shaped Products :</i>                              |            |            |         |              |
| 1. Semis for sale (for forging & seamless tubes only) | 358        | 495        | 615     | 766          |
| 2. Bars & Rods  | 3019       | 4052       | 4852    | 5825         |
| 3. Wire Rods  | 743        | 999        | 1231    | 1516         |
| 4. Structural   | 1433       | 1932       | 2335    | 2828         |
| 5. Sub-total of shaped products (1 to 4)              | 5553       | 7478       | 9033    | 10935        |
| 6. Rails & Rly. material                              | 420        | 525        | 529     | 638          |
| <i>Flat Products :</i>                                |            |            |         |              |
| 7. Plates   | 1059       | 1443       | 1795    | 2191         |
| 8. CR Sheets/strips                                   | 1136       | 1554       | 1955    | 2359         |
| 9. HR Sheets/Strips & Skelp                           | 1852       | 2535       | 3134    | 3849         |
| 10. GP/GC Sheets                                      | 282        | 328        | 361     | 398          |
| 11. Tinplates   | 272        | 315        | 348     | 385          |
| 12. Electrical sheets                                 | 149        | 198        | 240     | 290          |
| 13. Sub-total of flat products (7-12)                 | 4750       | 6373       | 7833    | 9472         |
| Total domestic demand (5+6+3)                         | 10723      | 14376      | 17395   | 21045        |

**APPENDIX II**  
(Vide Para 3.100)  
As on 1-12-74

*Electric Furnace units (State-wise) so far sanctioned for manufacture of steel ingots/billets*

| State                      | COB Ind. Licence<br>(Capacity in tonnes) | Letters of Intent<br>(Capacity in tonnes) | Authorised under LILP<br>(Capacity in tonnes) | Total<br>(Capacity in tonnes) |
|----------------------------|--|---|---|-------------------------------|
| Assam . . . . .            | ..                                       | 50,000(1)                                 | 10,000(1)                                     | 60,000(2)                     |
| Andhra Pradesh . . . . .   | 1,61,300(11)                             | ..  | ..  | 1,61,300(11)                  |
| Bihar . . . . .            | 1,23,000(6)                              | 50,000                                    | 15,000  | 1,88,000(8)                   |
| Delhi . . . . .            | 9,000(1)                                 | ..  | ..  | 9,000(1)                      |
| Gujarat . . . . .          | 1,12,000(5)                              | 50,000                                    | 68,000(3)                                     | 2,30,000(9)                   |
| Haryana . . . . .          | 2,17,500(9)                              | ..  | 61,400(4)                                     | 2,78,900(13)                  |
| Himachal Pradesh . . . . . | 16,000(1)                                | ..  | ..  | 16,000(1)                     |
| Karnataka . . . . .        | 2,01,000(8)                              | ..  | 20,000(1)                                     | 2,21,000(9)                   |
| Kerala . . . . .           | 50,000(1)                                | ..  | 9,000(1)                                      | 59,000(2)                     |
| Madhya Pradesh . . . . .   | 2,43,500(13)                             | ..  | 27,800(3)                                     | 2,71,300(16)                  |
| Maharashtra . . . . .      | 6,63,600(24)                             | 8,000(1)                                  | 1,79,500(10)                                  | 8,51,100(35)                  |
| Orissa . . . . .           | ..                                       | 36,000(2)                                 | ..  | 36,000(2)                     |
| Punjab . . . . .           | 1,93,000(10)                             | ..  | 64,000(2)                                     | 2,57,000(13)                  |
| Rajasthan . . . . .        | 1,63,500(13)                             | 50,000(1)                                 | ..  | 2,13,500(14)                  |
| Tamil Nadu . . . . .       | 1,00,000(1)                              | ..  | 23,250(2)                                     | 1,23,250(3)                   |
| Uttar Pradesh . . . . .    | 5,12,200(21)                             | 1,00,000(1)                               | 1,36,533(7)                                   | 7,48,733(29)                  |
| West Bengal . . . . .      | 3,38,900(18)                             | ..  | 1,10,500(6)                                   | 4,49,400(24)                  |
| <b>TOTAL . . . . .</b>     | <b>31,04,500(142)</b>                    | <b>3,44,000(8)</b>                        | <b>7,24,983(42)</b>                           | <b>41,73,483(192)</b>         |

Figures in brackets indicate number of units.



| 1 | 2             | 3                                   | 4                            | 5                            | 6                            | 7                            | 8                            | 9                            | 10                           | 11                           | 12                           | 13  |
|---|---------------|-------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|---|
|   | TISCO . . .   | H/M<br>Lump +<br>Fines +<br>Pellets | 1950<br>3240<br>3240<br>3240 | 1950<br>3240<br>3240<br>3240 | 1950<br>3240<br>3240<br>3240 | 1950<br>3240<br>3240<br>3240 | 1950<br>3240<br>3240<br>3240 | 1950<br>3240<br>3240<br>3240 | 1950<br>3240<br>3240<br>3240 | 1950<br>3240<br>3240<br>3240 | 1950<br>3240<br>3240<br>3240 | 5<br>Captive mines at<br>Noamundi, Joda etc.                                |
|   | 6 IISCO . . . | H/M<br>Lump +<br>Fines              | 880<br>1580<br>1580          | 1000<br>1700<br>1700         | 1150<br>1950<br>1950         | 1300<br>2200<br>2200         | 1300<br>2200<br>2200         | 1300<br>2200<br>2200         | 1300<br>2200<br>2200         | 1300<br>2200<br>2200         | 1300<br>2200<br>2200         | 6. Captive mines at<br>Gua & Chiriya, supple-<br>mented by Market<br>mines. |
|   | 7 TOTAL       | Hot<br>Metal<br>Lump &<br>Fines     | 9410<br>16670                | 11450<br>19140               | 12750<br>22110               | 14170<br>24510               | 14120<br>19900               | 14400<br>24330               | 14860<br>24710               | 15170<br>26140               | 15370<br>26380               |   |

**APPENDIX IV**  
(Vide Para 4.94)

**SOURCES OF SUPPLY OF REFRACTORIES FOR DIFFERENT  
STEEL PLANTS**

**1. Bhilai Steel Plant** .. ..

**(i) Fireclay**

1. Belpahar Refracories Ltd.
2. Orissa Cement Ltd.
3. Kumardhubi Fireclay & Silica Works.
4. Behar Firebricks & Potteries Ltd.
5. Assam Sillimanite Ltd.
6. Valley Refractories (P) Ltd.
7. Maithan Ceramics (P) Ltd.
8. Reliance Firebricks & Pottery Co. Ltd.
9. Jharia Firebricks & Pottery Works (P) Ltd.
10. Harry Refractories & Ceramics Works (P) Ltd.
11. Jauhar Firebricks & Refractory Works (P) Ltd.
12. Carborundum Universal Ltd.
13. Hind Refractories.

**(ii) Silica**

1. M|S. Belpahar Refractories.
2. M|s. Behar Firebricks.
3. M/s. Orissa Cement Ltd.
4. M/s. Kumardhubi Fireclay.

**(iii) Basic**

1. M|s. Belpahar Refractories.
2. M|s. Orissa Cement Ltd.

**2. Durgapur Steel Plant:**

1. M|s. Orissa Cement Ltd.
2. M|s. Belpahar Refractories Ltd.
3. M|s. Kumardhubi Fireclay & Silica Works.

4. M|s. Burn & Co.
5. M|s. Behar Firebricks.
6. M|s. Harry Refractories.
7. M|s. Valley Refractories Ltd.
8. M|s. Maithan Ceramics.
9. M|s. Hind Refractories Ltd.
10. M|s. Bharat Refractories Ltd.  
(of late there are small industries which have come up  
and DSP are placing orders on them).

### 3. Rourkela Steel Plant

#### (i) Fireclay Bricks:

1. M|s. Belpahar Refractories Ltd.
2. M|s. Orissa Cement Ltd.
3. M|s. Orissa Industries Ltd.
4. M|s. India Refractories.
5. M|s. Behar Firebricks & Potteries Ltd.
6. M|s. Taneja Minerals.
7. M|s. Valley Refractories.
8. M|s. Maithan Ceramics.
9. M|s. Harry Refractories.

#### (ii) Basic Bricks:

1. M|s. Belpahar Refractories Ltd.
2. M|s. Orissa Cement Ltd.

#### (iii) Silica

1. M|s. Belpahar Refractories Ltd.
2. M|s. Orissa Cement Ltd.
3. M|s. Kumardhubi Fireclay and Silica Works.
4. M|s. Behar Firebricks & Potteries Ltd.

### 4. Bokaro Steel Limited.

1. Orissa Cement Ltd.
2. Belpahar Refractories.
3. IFFICO.
4. Kumardhubi Fireclay & Silica Works.
5. Aloka Refractories.

6. Maithan Ceramics.
7. Bengal, Bihar, India Refractories.
8. Burn & Co.
9. Orissa Industries Ltd.
10. Bharat Refractories Ltd.

5. *Alloy Steels Plant*

1. Belpahar Refractories Ltd.
2. Burn & Company.
3. Orissa Cement Ltd.
4. Kumardhubi Fireclay & Silica Works.
5. Behar Firebricks.
6. Valley Refractories.
7. Maithan Ceramics.
8. Bengal, Bihar Firebricks.
9. Hind Refractories.

## APPENDIX V

### Summary of Conclusions|Recommendations

| S.No. | Reference to para No. in the Report | Summary of Conclusion/Recommendations  |
|-------|-------------------------------------|--|
| 1     | 2                                   | 3  |
| Para  |                                     |  |
| 1     | 1.23—1.24                           | <p>The Committee note that the SAIL has been set up as a holding company with a view to planning, promoting and organising an integrated and efficient development of the iron and steel and associated input industries in accordance with national economic policy and objectives laid down by the Government from time to time and to coordinate the activities of its subsidiaries, besides formulating and recommending to the Government a national policy for the development of iron and steel and related input industries. The Committee note that the SAIL is engaged in achieving these objectives. Detailed recommendations in regard to each of the objectives are dealt with in the subsequent Chapters of this Report.</p> <p>The Committee regret to note that though in their 40th Report (1973-74) on 'Role and Achievements of Public Undertakings' they had recommended that the micro objectives both financial and economic for each public undertaking should be laid down and placed before the Parliament, so far no action has been taken to lay down these objectives and bring it to the notice of Parliament. The Committee were informed during evidence that public undertakings were waiting for the Bureau of Public Enterprises to lay down the micro objectives of the public sec-</p> |



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tor as whole on the lines indicated by the Committee on Public Undertakings. The Chairman, SAIL and Secretary, Department of Steel has stated during evidence that "I would submit this work will be done shortly as soon as the Bureau worked this out." The Committee regret to observe that the Bureau of Public Enterprises have taken an unduly long time in finalising the micro-objectives of public undertakings and desire that the Bureau should finalise these objectives expeditiously. The Committee would like Government to finalise their guidelines in this regard and laydown general financial, economic and social objectives of the holding company as well as the subsidiaries and bring this to the notice of Parliament without further delay.

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1.25

The Committee also recommend that Government|SAIL should take immediate action to formulate the national policy for the development of steel with all supporting data and in the light of experience in the country and the knowledge of innovations and experience abroad for the consideration of Government and bring it to the notice of Parliament at an early date.

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1.26

The Committee also note that even after the formation of SAIL, Hindustan Steel Ltd. which was coordinating organisation for Bhilai, Rourkela and Durgapur Steel Plants, continues to function under the SAIL. The Committee feel that the continued existence of HSL within the Steel Authority of India, a holding company, seems to be incongruous. The Chairman, SAIL and Secretary, Department of Steel has admitted during evidence that "when we formed SAIL at that time we clearly visualised that the Hindustan Steel would be re-organised. I do submit that there has been some delay. I think decision in the SAIL has been taken and this we

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are now carrying and I hope it will be implemented early." The Committee feel that a decision in this regard has already been over-delayed and recommend that Government should finalise their decision most expeditiously. The Committee have given their further recommendations in this regard in "Organisation" chapter of this report.

4 1.27—1.28

In Paragraph 3.15 of their 40th Report (1973-74) on "Role & Achievements of Public Undertakings" the Committee had observed that "the point whether the holding company (SAIL) should have been established under an Act of Parliament as is done in some other countries, can be decided only after some experience with the present set up."

The Committee, therefore, recommend that the experience of the Role and achievement of SAIL should be most carefully evaluated and Parliament should be kept informed of the results of evaluation.

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2.17

The Committee note that the domestic demand for saleable mild steel has been estimated at about 10 million tonnes by 1978-79, the last year of Fifth Plan. Against this, the production expected from the integrated steel plants is placed at 8.8 million tonnes. The electric arc furnace units are expected to contribute a million tonnes of bars and rods. The indigenous availability of mild steel by 1978-79 would thus be 9.8 million tonnes. It has been stated that this would more or less meet the estimated domestic demand. The Committee, however, find that the demand for steel at the end of 6th Plan would be of the order of 17 million tonnes and at the end of the 6th Plan, there will be a gap of 15 million tonnes. The Committee were

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informed that the demand for 5th Plan was assessed on the basis of the data already available and also on some studies made in relation to the kind of demand which each of the industries would project over a period of time and taking into account the consumption in the Fourth Plan and growth needs thereafter. Though this method has, it is stated, been accepted by the Planning Commission, the SAIL is of the opinion that this is a continuing activity and has to be updated and clarified so that the nature of the demand can be known with greater degree of certainty. The Committee agree with SAIL that the assessment of the demand of the various kinds of steel is a continuing activity and requires to be updated with reference to demand of end-users. The Committee desire that the SAIL should keep the demands for mild steel under constant review and adjust its production and expansion programmes to meet the likely demand for the various types of mild steel.

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2.18

The Committee note that the total demand in 1973-74 of tool, alloy and special steels was 4 lakh tonnes. The Committee also note that in respect of alloy and special steels, no precise estimates for demand for future has been made and the demand is generally expected to go up by 5 to 10 per cent per annum. If the SAIL recognises, as it says, it does, the need to study the demand trends in future on a continuous basis for taking investment decisions both in private and public sectors, the Committee cannot appreciate why no concrete action has been taken so far to make an estimate of the demand for tool, alloy and special steels for the future. They would like the SAIL to lose no more time to initiate action in this direction so that their investment and production programmes can be

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suitably tailored to match the production to the demand.

7 2.19—2.21

The Committee note that demand surveys have been conducted from time to time through consultancy organisations like Industrial Development Services, Atkins Das Private Ltd., National Council of Applied Economic Research and several methods are used for forecasting the demand.

The Committee find that Government/SAIL have also got the following reliable sources of information for working out the demand projections of the various types of steel:—

- (1) Steel Controller/Steel Distribution Authority;
- (2) SAIL International through which steel is imported;
- (3) Demand of Government Departments, particularly, Defence, Railways, Works & Housing, Irrigation and Power etc.
- (4) Demand of Public Sector Undertakings (Centre and States).

They further note that there are wide variations in the demand forecasts made by the various organisations in regard to the finished mild steel. According to an estimate made in 1968 by the National Council of Applied Economic Research, the demand projection for finished steel in 1980 was estimated to be of the order of over 15 million tonnes. According to another demand projection made in 1971 by the same organisation, the demand for finished steel in 1980 had been put down at nearly 13 million tonnes. According to the report (May, 1973) submitted by the Task Force on Iron and Steel

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constituted by the Steering Group on Metallurgical Industries (Fifth Plan) the estimated demand for finished mild steel at the end of 1978-79 would be of the order of a little less than 11 million tonnes. As against these projections the SAIL which also conducted a demand survey in January, 1975, estimated the demand to be of the order of nearly 7.6 million tonnes at the end of 1978-79. This underlines the need for critical review of the various demand projections. The Committee like SAIL to go into this matter carefully and thoroughly with a view to arriving at reliable demand projections and making realistic assessment of the demands of various types of steel as accurately as possible so that it may be in a position to take appropriate investment decisions on the expansion of existing steel plants and the setting up of new plants and also take effective steps in the rational utilisation of the existing capacities of the various steel plants. The Committee are informed that as the work of demand survey requires a certain methodology, competence and experience which exist in the country, SAIL has decided to make use of private consultants available in the country in the initial stages for this purpose. While on the one hand SAIL considers that there is an imperative need to build up and progressively strengthen its own organisation for making proper demand surveys for various categories of steel, on the other hand, it also feels that for doing this work without the assistance of outside agencies, it would have to recruit a large number of persons and once they are recruited, it will be difficult to dispense with them and they would become an avoidable overhead. The Committee are of the opinion that there have been wide variations in the projections of demand for various categories of steel as have been worked out by the different autho-

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rities and therefore it may not be safe to rely on such data. The Committee need hardly stress that in view of the huge investment required for steel production, it is very essential that the demand survey should be realistic. The Committee are, however, not inclined to share the view that it is not possible to conduct the demand surveys without the assistance of the outside agencies, as in their opinion the demand projections of such agencies have proved to be wrong. They would, therefore, like SAIL/Government to constitute their own machinery and settle its methodology for working out demand projections for the various categories of steel on a realistic basis at an early date and review it from time to time to make sure that it is adequate to serve the underlying objective. The Committee recommend that in constituting such a machinery care should be taken to ensure that the overheads are kept to the minimum.

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3.2

The Committee reiterate the recommendations of the Estimates Committee in paragraphs 2.117 and 2.118 of the Seventy Eighth Report (1974-75) and urge that the white paper on the state of production in the steel plants may be completed and laid on the Table of the House at an early date.

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3.27  
3.28

The Committee note that although the overall production of ingot steel during 1974-75 has increased over that in 1973-74, it is less than that in 1972-73 in the steel plants of Bhilai and Rourkela. The utilisation of capacity in 1974-75 in respect of ingot steel has been of the order of 80 per cent in Bhilai, 51 per cent in Durgapur and 59 per cent in Rourkela. Similarly in regard to saleable steel though the overall production in terms of quantity has been the maximum in 1974-75, in terms of utilisation of capacity, the

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percentage has been less than 1972-73 in Bhilai and less than 1972-73 and 1973-74 in Rourkela. The percentage of utilisation of capacity in 1974-75 has been 86 per cent in Bhilai 42 per cent in Durgapur 66 per cent in Rourkela. The main reasons for shortfall in production in 1973-74 are severe power cuts, inadequate availability of coal, intermittent slowdown and industrial unrest in Railways and disturbed industrial relations in Durgapur and Rourkela. It has been stated that production of saleable steel could have been higher but for the production in the early part of 1974 having been affected by Railway strike, restriction in power supply from Damodar Valley Corporation and Orissa State Electricity Board and inadequate supply of coking coal. The Committee were informed that SAIL had taken a number of long term and short term measures to improve production, such as provision of balancing facilities required to correct the existing imbalances. Capital additions and improvements in procurement of spares, refractories and essential raw materials, addition of coke oven battery at Bhilai and one half coke oven battery each at Durgapur and Rourkela and also improvement in area of operational efficiency in the plants special attention to provision of inputs, improvement in industrial relations etc. The Committee are also informed that SAIL had decided to measure the performance of the Plants not by Ingot steel but by saleable steel, and consequently diverted the inputs of production of saleable steel within limits. SAIL had also transferred from plants having surplus of ingots to plants having surplus of rolling capacity. It has been able to increase the overall availability of steel to the community. The Committee find that the yield of saleable steel from ingots has improved during 1974-75 as compared to the previous years.

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It has also been stated that in 1973-74 and 1974-75 attempts were made to fix the targets in a realistic manner taking into account the constraints by involving those who produce and those who supply the inputs instead of an arbitrary basis as in earlier years. The Committee, however, find that there is still a large gap between rated capacity of the plants and actual production. The extent of production loss due to external factors as well as internal causes and the loss in net contribution on saleable, pig iron and saleable steel has also been stated to be of the order of about Rs. 27 crores in 1974-75 as compared to the loss of Rs. 35 crores in 1973-74.

The Committee would like to judge the performance of SAIL which has the object of coordinating the activities of subsidiaries and input industries, on the basis of the results actually achieved. In the opinion of the Committee constraints of a general nature, whatsoever, should not be made excuses for not achieving the rated capacity.

The Committee cannot over emphasise the need for more concerted measures to remove the constraints and for securing optimum utilisation of rated capacity and increased production from the steel plants on which huge investments had been made, not only to meet the internal demand but also to improve the exports to earn the most needed foreign exchange.

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3.29

The Committee note that though the percentage utilisation of capacity of pig iron in Bhilai, Durgapur and Bokaro Steel Plants during

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1974-75 has been of the order of 59 per cent, 42 per cent and 69 per cent as compared to 56 per cent, 33 per cent and 75 per cent respectively during 1973-74, there is still a large gap between actual utilisation and rated capacity. The Committee are informed that the shortfall in production in Bhilai is because of non-operation of one of the six blast furnaces on account of troubles in coke ovens, shortage of coking coal and inadequate availability of coal. It has been stated that in Bokaro, Blast Furnace No. I was commissioned only in October, 1972. The Committee were informed that installed capacity of production of pig iron is expressed as balance of blast furnace capacity after meeting the requirements of pig iron for steel making on account of drastic reduction in oven pushing because of shortage of coking coal, restriction on power problem with railways, there had been a conscious cut back in the production of blast furnaces. The Committee recommend that SAIL should, keeping in view the need for optimising production of saleable pig iron as well as steel, take appropriate steps to remove the constraints and improve the utilisation of pig iron capacity.

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3.60  
3.62

The Committee note that Durgapur Steel Plant has achieved production of 8.19 lakhs tonnes of ingot steel and 5.2 lakh tonnes of saleable steel in 1974-75, the highest since 1969-70 and 1968-69 respectively. Still the capacity utilisation has been only of the order of 50 per cent in ingot steel and 42 per cent in saleable steel. Even this is stated to have been possible because of rebuilding of coke oven battery No. 1 and repairs to other batteries and SAIL's assistance in effective coordinated supply of raw materials and power and emphasis in production of saleable

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steel as compared to ingot steel. Supply of coal and lime stone was discussed from time to time during 1974-75 by SAIL officers and arrangements were made for supply of additional washed coal from Patherdih and Lodna washeries and additional quantity of lime stone from Bhavathpur lime store queries of Bokaro Steel in addition to supply from Birmitrapur. It has been stated that supply of coal, iron ore, lime stone, power and rail transport for DSP is being continuously watched by SAIL in association with Railway Board, BCCL, CMAL, Ministry of Energy and D.V.C. SAIL monitoring cell at Calcutta also watches the position of supply of major raw materials to DSP and coordinates with S.E. and Eastern Railways and if necessary these materials are supplied to DSP by diverting from other destinations. The Committee feel that these are steps which should have been taken by DSP management from time to time much earlier. The main reasons for the ills of Durgapur Steel Plant were—

- (i) indifferent industrial relations;
- (ii) diversification of condition of coke oven batteries;
- (iii) lack of proper maintenance arising mainly out of poor industrial relations and partly on account of inadequate stress on maintenance;
- (iv) poor and deteriorating quality of coal; and
- (v) inadequate supply of power.

The Committee were however informed that while other Steel plants, when they faced operational difficulties, took various steps to follow up

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decisions taken to find optimum solution to the problems by constant follow up, such an initiative was lacking in Durgapur.

The Committee also find that the Action Committee which went into the problems of Durgapur Steel Plant submitted a draft report as early as in 1973 and made a number of important recommendations regarding coke oven and by-product plant improvement and maintenance, imbalance in steel melting shop, low percentage of furnace availability, poor utilisation of blooming mill, improvement of services, industrial relations, power supply, management development and training. With the implementation of these it should be possible to reach close to the rated capacity of 1.6 million tonnes. Considering the situation in Durgapur, the action committee recommended that government might accept 1.4 M.T. of ingots as the practical capacity for the plant. The Committee find that SAIL has considered the recommendation regarding derating of the plant as the most important recommendation for the present and according to it the primary task was to increase production to a level which would create confidence for further improved performance. Though the committee welcome the steps taken to improve the performance of DSP during 1974-75 the committee feel that Government/SAIL should have taken a decision on the recommendations of Action Committee and take concerted and coordinated efforts to improve the performance so as to reach not only the attainable capacity of 1.4 million tonnes but to attain the full rated capacity of 1.6 million tonnes.

The Committee also recommend that SAIL should in particular take immediate suitable measures to improve the utilisation of the

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blooming mill and thus the performance of the plant.

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3.64

The Committee were given to understand that the outgoing General Manager, D.S.P. gave some suggestions important amongst which were—

(a) installation of additional tipplers for box wagons;

(b) installation of captive power stations;

(c) acquisition of lime stone projects at Ranchi.

The Committee are informed that while a decision has already been taken in regard to captive power plants the additional tipplers for box wagons are expected to be commissioned by July, 1976. The question of acquisition of lime stone property near Ranchi is to be settled by the Mineral Development Corporation of Bihar. The Committee desire that SAIL should take steps to ensure that there is no slippage in the schedule of commissioning of the tipplers. The Committee would also like SAIL/Government to pursue the matter with the Government of Bihar so that acquisition of lime stone property in Ranchi is not delayed. The Committee would like to be kept informed of the results.

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3.65

The Committee find that there has been an accumulation of ingots with Durgapur Steel Plant to the extent of 1.17 lakh tonnes. According to SAIL, a stock of 40 to 50000 tonnes of ingots is considered as the limit of normal stock and Durgapur Steel Plant has been advised to reduce its inventory of ingots. The Committee are informed that over production of ingots

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is closely related to supply of power from Damodar Valley Corporation and the main problem of Durgapur Steel Plant was the weakness of Blooming Mill to roll out the entire quantity of steel produced thus increasing the stock of ingots continuously. It has been stated that SAIL has already given assistance to Durgapur Steel Plant to sell/dispose of 48400 tonnes of ingots to steel plants to Bhilai, Jamshedpur and Burnpur and in spite of this the stocks had gone up during 1974-75. The Committee are informed that major portion of ingots in off and high carbon grades was not acceptable to integrated steel plants nor was there scope for settling them to small rolling mills, because of their sizes. Exports of these varieties could not also be arranged due to sag in the international market. As accumulation of such stock of ingots without use to the community results only in the necessary locking up of capital besides wastage of inputs like coking coal iron ore, power etc., the Committee would like SAIL to go into this problem critically and regulate the production of ingots of requisite quality and also take steps to keep the inventory of ingots to the required level.

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3.81

to

3.82

The Committee note that during the period up to 1973-74, the Alloy Steel Plant has been working up to 50 to 60 per cent of the installed capacity. The production during 1974-75 has been of the order of 78400 tonnes of ingots against the rated capacity of 1 lakh tonnes and 36700 tonnes of saleable steel against the rated capacity of 60,000 tonnes. Although production during 1974-75 has improved, the actual utilisation is still less than the rated capacity. The Committee are informed that the reasons for shortfall were power shortage and equipment breakdowns particularly in forge shop. It has been

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stated that the economics of the plant greatly depended on the product-mix and efforts are constantly made to optimise production of critical quality of steels which produce more returns, within the framework of the underbooking.

The Committee find that the Action Committee of Planning Commission which went into the working of Alloy Steels Plant had recommended seven items of capital expenditure besides improvement of industrial relations management development and training. Constitution of Coordination Committees etc. The Committee understand that suggestions of Action Committee are still under consideration of SAIL/Government. It has been stated that vigorous action is being taken to improve production of saleable steel and certain additions and modifications are being made for improving production at forge shop. The Committee would like to be informed of the results achieved as a result of various measures taken and modifications made.

The Committee expect that SAIL/Government would critically examine the suggestions of the Action Committee with a view to improving the production performance of Alloy Steels Plant with particular reference to such critical items of steel as would reduce imports and produce more returns and also to obtain the full rated capacity of the plant.

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3.83

The Committee note that there has been an imbalance in the blooming billet and bar mills of the Alloy Steels Plant. While the steel plant in the first phase has been built to produce 1 lakh tonnes of ingots to be converted into 60000 tonnes of saleable steel, the blooming and billet mill which has the capacity of 3 lakh tonnes

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per annum on the basis of 3 shift running has to be utilised for only one shift a day keeping the two shifts idle. The Committee are informed that the inbuilt capacity of blooming mill could only be utilised if all the principal facilities in the plants starting from steel making, heating to rolling and finishing were expanded to suit the higher production. Though the Committee are unable to share this view, the Committee find that no decision has been taken regarding expansion of the plant. It has been stated that SAIL is proposing to take care of the imbalance in production facilities by having a jobbing mill in view of the time taken for consideration of expansion. The Committee have given their recommendations in regard to expansion of Alloy Steels Plant in a subsequent Chapter of this Report.

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3.87

The Committee note that the first stage of 1.7 million of Bokaro Steel Plant which was originally projected for completion by March, 1971 had been delayed. Major contributory causes were stated to be initial delay in getting possession of land, delay in manufacture and supply of equipment by the indigenous manufacturers, industrial unrest and occasional delays in the supply of essential inputs such as refractories, matching sections of steel, cement, industrial gases, etc. The Committee note that a detailed review of progress of work was conducted and as a result of this exercise the construction schedule has been updated according to which first stage is expected to be completed by December, 1975. The four million stage is projected for completion by December, 1977 and the Cold Rolling Mill Complex by 1979. The Committee are informed that the SAIL/Steel Ministry have

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been giving all assistance to the plant management in the procurement of essential inputs, follow-up of equipment supplies by indigenous manufacturers, securing import clearances, etc. SAIL|Department of Steel are stated to be closely monitoring the progress of the work and reviewing the progress. The progress is also stated to be reviewed frequently by the Board of Directors of Bokaro Steel. The Committee would urge that SAIL|Government should ensure that there is no further slippage in the programme of completion and the revised schedule are adhered to.

17 3.95-3.96

The Committee note that out of 192 electric arc furnace units accorded registration|granted letters of intent|industrial licences, only 59 units were reported to have gone into production. It has been stated that production of steel of the electric furnace units in relation to the total steel production would work out to about 16 per cent to 20 per cent. The Committee were however informed that so far no detailed studies had been undertaken on the investment pattern vis-a-vis cost of production and it is proposed to undertake a Study shortly. Also the Government policy is to consolidate the capacity already authorised and to regulate further growth of industry in keeping with availability of inputs. It has been stated that electric arc furnace units have some advantages over integrated steel plants.

The Committee felt that such studies about the economics of plants vis-a-vis cost of production should have been undertaken well in advance before licences for putting up such plants were granted at all. The Committee agree that it is desirable to consolidate the capacity already



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authorised in keeping with availability of inputs. The Committee urge that Government should lose no time in making a critical evaluation of the working of the plants already put up and also study the economics of such plants in the context of the existing integrated steel plants and improved production of steel. The Committee would like to be informed of the results of such studies.

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3.97

The Committee also note that a large number of units have not been able to start production for want of power as the States concerned are not in a position to help them in this matter and further licensing of such units has been discouraged on this account. The Committee desire that the matter regarding shortage of power supply to these units should be taken up at the highest level and adequately programmes for augmentation of power supply for the steel industry may be drawn up on a priority basis.

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3.108

The Committee note that SAIL has taken various steps to effect reduction in the cost of production. The steps include improvement in consumption norms (e.g. in Bhilai the coke rate has been reduced), better yield of finished goods (e.g. defective have been reduced due to better performance of rolling mills), better capacity utilisation leading to reduction in cost per tonne of fixed costs and better cash management and distribution system. The representative of SAIL has admitted during evidence that "we are aware of the problem in these defined areas; but there are other areas... we can lessen the fixed charge of labour or total salaries and wages etc. Here

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|    |             | <p>one can only lessen this as expansion takes place and try to absorb some of the workers from places where we think we have large staff. Results can be achieved by improving operational efficiency, by improving productivity by getting less defectives and by having economy in distributive costs." The Committee recommend that Government SAIL should critically examine and identify the areas in each steel plants where there is scope for reduction in cost, formulate a separate programme for each plant for bringing about economies in those areas, and ensure that the cost reduction programme is implemented in a systematic manner and monitor the results of such programmes.</p> |
| 20 | 3.109       | <p>The Committee also suggest that there should be a continuous review of cost and cost reduction processes so that suitable measures may be taken in time to rectify deficiencies.</p>   |
| 21 | 3.110       | <p>The Committee also recommend that detailed investigations for development of norms of consumption standards of unit prices for materials and services and labour productivity should be done and efficiency of production should be judged with reference to such norms.</p>   |
| 22 | 3.113—3.118 | <p>The Committee note that for encouraging growth of small scale industries, 45 industrial units have been set up, around the Bhilai Steel Plant and these are able to supply maintenance a number of sophisticated items besides maintenance spares such as door frames, armour frames, grab buckets etc. The value of orders for repetitive items have increased from Rs. 39.59 lakhs during 1969—71 to Rs. 102.62 lakhs during 1973—75. A number of orders for non-repetitive</p>  |

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items had also been placed on these units and during April 74 to September 74 alone these industries received orders for 482 items of value Rs. 1.5 crores.

In Rourkela, out of 170 units in the State, 104 are located around Rourkela and these supplied spare parts for various non-ferrous castings, lancing tubes, chain slings etc. for the steel plant and the total value of orders ranged from Rs. 5 lakhs in 1965 to Rs. 5.3 crores in 1973-74. It has however been stated by SAIL that there is further scope for small industries to come up.

In regard to Durgapur Steel Plant it has been stated that an Ancillary and Small Scale Industries Development Committee was set up by West Bengal Government and a large number of industries servicing the needs of steel plant or connected with the steel plant or steel population have come up within an area of about 20 miles. A substantial portion of the products of the industries is consumed by Durgapur Steel Plant.

In Bokaro, the Bokaro Industrial Development Authority was constituted by Government of Bihar for developing small, medium and large scale industries and Bokaro Steel Plant, and 189 units have so far been allotted land out of which 55 are in production and 87 under construction. A number of items made in these units are purchased regularly by BSP, and during 1973-74 orders worth Rs. 42 lakhs were placed on the ancillary units.

The Committee feel that, although efforts have been made for the development of ancillary industries around each of the steel plants, there is still much scope for the development of the ancillary and small scale industries. The Committee would like SAIL to continue its efforts in

this direction so that not only the products of these units could be utilised to a greater extent by the Steel Plants and the plants assured of regular and continuous supply of spare parts and other materials but at the same time greater employment potential is created.

The Committee would, in this connection, invite the attention of Govt./SAIL, to their recommendations contained in paragraph 9.21 of their 40th Report (1973-74) on Role and Achievement of Public Undertaking.

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4.6—4.8

The Committee note that the contribution of National Mineral Development Corporation, a subsidiary of SAIL, to the total production of iron ore in the country has come down from 14.73 per cent in 1971 to 14.67 per cent in 1974 though in terms of actual quantity produced there is a marginal increase from 50 lakh tonnes in 1971 to 51 lakh tonnes in 1974. They also note that the production in the NMDC mines has been lower than the targets all these years. The reasons for lower production have been stated to be less recovery of lump ore (64 per cent) from Bailadila than that anticipated in the DPR (75 per cent), arising of 10 per cent waste material and blue dust not originally catered for in DPR, delay in completion of plant by over one year, in the receipt of critical spares (both—imported and indigenous), occasional break-downs of plants, inclement climate conditions and strike of Railways and its after-effects and also delays in completion of modification and expansion of Kiriburu due to delays in supplies from H.E.C. The Committee were informed that SAIL/NMDC had taken a number of steps to remove the constraints and increase the production from the mines. The steps include better preventive maintenance of equipment improvement in availability of spares, increase in total excavation of ROM to the level of 6.6 million tonnes per year

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against the DPR estimate of 5.5 million tonnes, arranging indigenous supply of apron links and plates and training of managerial and operating personnel. The Committee were also informed that a high level technical Committee was appointed to study the deficiencies in equipment and plant facilities at Bailadila-14 and most of the additional equipment suggested by the high level Committee had already been commissioned. The Committee were further informed that in order to meet the increasing requirements of high quality iron ore for the steel industry and for export, the NMDC had taken up modification and expansion of Kiriburu mines, the development of Meghabatuburu, Donimalai complex, Kundermukh Group of mines and Bailadila Deposit No. 5, and exploration of Bailadila Deposit No. 4 and Malangtoli deposits.

The Committee wish to refer to paragraphs 5.56 and 5.57 of their 37th Report (4th Lok Sabha) 1972-73 on NMDC in which they had recommended that the management of NMDC should take all possible steps to increase recovery of lump ore and enhance efficiency in production. Though these recommendations were made as early as November, 1973 they regret to note that instead of showing improvement consistently, the production has gone down from 50 lakh tonnes in 1973-74 to about 36 lakh tonnes in 1974-75. The Committee view with deep concern the fall in production of iron ores to the extent of 14 lakh tonnes in 1974-75 inspite of SAIL's existence to coordinate the inputs. They would like SAIL to go into the reasons for the shortfall and take suitable measures to improve the production of iron ores. The Committee recommend that concerted efforts should be made by SAIL/NMDC to increase recovery of lump ore to bring it nearer to 75 per cent as provided in the DPR and to improve efficiency in production of iron

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ore in the NMDC mines so that they can meet the increasing requirements of high quality iron ore for the steel industry and for export.

The Committee need hardly stress the importance of increasing the production in mines so as to enable the steel plants to correspondingly achieve better performance and output.

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4.9—4.10

The Committee also note that for meeting the increasing requirements of high quality iron ore for the steel industry and export, NMDC| SAIL had taken up new programmes like modification and expansion of Kiriburu, development of mechanised mines at Meghahatuburu, Lonimalai complex, Kudremukh mines, Bailadila No. 4 and 5 and Malangtoli.

The Committee recommend that the work on these projects should be monitored regularly with a view to ensuring that they are completed not only according to schedule but also to meet the requirements of steel plants to which they have been/or would be linked, or become available for the purpose of exports as the case may be.

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4.21

The Committee note that as against the programme of supply of iron ore to the Bhilai, Durgapur, Rourkela and Bokaro steel plants during the year 1972-73, 1973-74 and 1974-75 to the extent of 8.95 million tonnes, 10.78 million tonnes, 10.80 million tonnes respectively the actual receipts of iron ore by these plants during the aforesaid periods were 8.26 million tonnes, 8.41 million tonnes, 9.05 million tonnes respectively. The receipts of iron ore in these plants during 1972-73 and 1973-74 generally matched with the consumption excepting in Rourkela during 1973-74 where the receipt of iron ore was short of consumption by 0.16 million tonnes and the shortfall was stated to have been met from the stock already available. The Committee were informed that though the

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production in Rourkela Steel Plant has not suffered, SAIL agreed to provide for additional line capacity at Rajkharswan to facilitate transport of iron ore from the Barajamda mines and the possibility of transporting part of high grade ore by road is also stated to be under examination. The Committee feel that this difficulty of transport should have been anticipated by SAIL earlier and the matter regarding provision of additional railway line should have been taken up earlier with the railways and settled in the interest of avoiding held ups at Rajkharswan. The Committee understand that a sum of Rs. 50 lakhs has since been deposited with the railways for construction of by-pass at Rajkharswan. The Committee would like SAIL/Government to pursue the matter with the railways to see that the railway line is provided at the earliest.

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4.22

The Committee note that, in Durgapur, during 1974-75, the ore supply programme was based on an anticipated hot metal production of 1.2 million tonnes. The actual production was however 0.92 million tonnes and the receipt of ore exceeded the consumption. It has been stated that the mechanised section of the Bolani Mine has been expanded so that it may constitute a more stable base for lump ore and grade fines. The Committee would like to watch the developments in this regard.

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4.23

The Committee note that production in Bokaro did not suffer due to shortage of iron ore and its ore requirements were fully met. Though its ore requirements for 1974-75 were based on the planned hot metal production of 0.81 million tonnes, the actual production was only 0.75 million tonnes and the receipts of ore exceeded the consumption. The Committee feel that less consumption of iron ore and consequent loss of production in Bokaro during 1974-75 only

indicate that there was scope for improvement in production by full consumption of the receipts. The Committee recommend that all efforts should be made to ensure that production does not lag behind the planned target.

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4.24

The Committee note that the completion of the Kiriburu Modification Section is held up because of non-receipt of equipments for all the ore fine handling section. The Committee recommend that that SAIL/Ministry should take up the matter with the Ministry of Heavy Industry and the HEC to ensure that there is no further delay in the supplies and the work is completed at least by the revised schedule.

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4.26

The Committee find that though by and large the iron ore requirements of the steel plants have been met, in regard to quality of ore, Fe content of ore supplied to Bhilai was 62.74 per cent in lump ore, 61.81 per cent in fines and 66.32 per cent in open hearth grade. In Durgapur Fe content in lump ore ranged between 60.8 per cent and 63.4 per cent and in fines it was 62.4 per cent. In Rourkela during 1974-75, the average Fe content in low grade lumps was 61.8 per cent and in fines Fe content was 60.9 per cent. In view of the wide variation of Fe content in lumps and fines supplied to the various steel plants during these years, the Committee are not sure whether low production in steel plants was attributable to the low quality of ores supplied, and variation in Fe content. They desire that the reasons for variation in Fe content should be critically analysed and steps taken to improve the quality of ore and supply the same according to required specifications so as to enable steel plants to



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achieve better production results and bring down the cost of production. The Committee also recommend that suitable norms should be evolved to ensure best possible utilisation of the available iron ore consistent with the percentage of iron in lump and fines.

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4.38

The Committee note that SAIL has worked out the estimated requirements of iron ore during 5th and 6th plan periods for integrated steel plants and has linked each one of the steel plants with specific iron ore mines. They also note that the arrangements of transport of iron ore during the plan periods would normally follow the already agreed pattern for the year 1974-75 subject to such deviations as may be agreed to with the railways at the time of formulation of the annual plans. The Committee would like the SAIL to make sure that the iron ore mines linked with the respective steel plants are developed in time to produce the expected quantity of iron ore and meet the requirements of the steel plants in full. They would also like SAIL to maintain a close and continuous co-ordination with the railway authorities at the Centre and in the field to ensure that there is no bottleneck in the movement of iron ore from the various mines to the respective steel plants etc., and to review along with the railways from time to time the execution of the new schemes and works for the transport of additional quantities of iron ore to make sure that their completion synchronises with the additional production of iron ores in the existing mines and development of new mines.

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4.51

The Committee note that the Iron Ore Board has been set up as a Society under the Societies Registration Act, 1960 on 20th January, 1973 to act as an advisory body in respect of planning & development of all aspects of iron ore deposits

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in the country, to plans for adequate supply of best quality of iron ore for the steel industry and to promote export, to ensure coordination of infrastructure facilities for iron ore production and to promote equitable distribution of iron ore cargo for shipment from different ports etc. etc. The Committee also note that the Board has set up a number of committees to report on specific issues and initiated studies on various aspects of development and utilisation of iron ore deposits. The Board is also reported to have made a proposal for the levy of cess on the development of iron ore industry. The Committee however find that one of the functions of SAIL/Ministry is 'Development of input industries relating to iron ore etc. required mainly by the Steel Industry'. The Committee therefore recommend that Ministry/SAIL should clearly define the role of Iron Ore Board *vis-a-vis* that of SAIL so that there could be an effective coordination between the functioning of the Iron Ore Board and that of SAIL without any overlapping in functions and the various problems of the iron ore mines can be resolved in time and the Board can help in the development of mines, maximise production and streamline movement of iron ore for the better performance of the steel plants. The Committee would also like that Government should review the functioning of Iron Ore Board after some time to see how far the setting up of the Board has been useful not only to the functioning of NMDC but also in improving the performance of steel plants.

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4.83

The Committee note that for power, Rourkela Steel Plant is dependent on Orissa State Electricity Board, the Bhilai Steel Plant on Madhya Pradesh Electricity Board and the other steel plants, namely, Bokaro, Durgapur, Alloy Steels Plant, TISCO and IISCO are connected with

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Damodar Valley Corporation and all the steel plants except Bokaro have firm agreements with the concerned public utilities. The Committee also note that the firm agreement for supply of power between Bokaro Steel Plant and the DVC would be finalised shortly. The Committee recommend that for an assured supply of power from the DVC, the Bokaro Steel Plant should without further delay finalise its requirements of power and enter into firm agreements with DVC.

33 4.84—4.86

The Committee regret to note that during the year 1973-74, the country lost a total of about 4.14 lakhs tonnes of saleable steel attributable directly to power shortage and/or coal shortage resulting from power shortages in the collieries and mines. The Committee were informed that according to the recommendations of the Committee of Power Engineers of SAIL in July, 1973, the in-plant generating capacity of steel plants should be augmented in order to ensure uninterrupted operation and to avoid situations of unutilised steel capacity. The extent of augmentation was worked out as 665 m.w. except in regard to Bhilai and the Visakhapatnam and Vijaynagar Steel Plants which are yet to be assessed. With the augmentation of the in-plant capacity, the public utility systems catering to the requirements of the various steel plants would also have to be strengthened adequately so that they were able to meet total load requirement. It has been stated that the SAIL completed feasibility studies in respect of Bokaro, Rourkela, Durgapur, Bhilai, and special steps have also been taken in improving the generation of captive power plants. The Committee were also informed that two units of 200 m.w. have been sanctioned for installation at Satpura and Korba power houses of the Madhya Pradesh Electricity Board to augment the power supply to Bhilai and it was expected

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that the first unit of Satpura would be commissioned in 1977-78. In addition, two units of 120 m.w. are also under erection at Amar Katak which are likely to be commissioned, one by the end of 1976 and the other by the middle of 1977. According to Department of Power sufficient capacity has thus been provided for in Madhya Pradesh to take care of the growing demands of power for increased production of steel in Bhilai and aluminium in Korba.

In so far as Rourkela is concerned, the Committee were informed that the steel plant did suffer due to shortage of power from Hirakud and Machkund. However, with the help of the Ministry of Irrigation and Power, power was diverted from DVC through the grid system to enable Rourkela to take up more power. It has been stated that in respect of the eastern region primarily for Bengal and Bihar areas, in 1973-74 the situation was very bad but priorities were given to steel and coal which enabled steady supply of power from the DVC after the generation in DVC improved in March, 1974. According to Department of Power with the commissioning of the 5th unit in Chandrapura by DVC, the full requirements of Bokaro Steel would also be met. The Committee were also informed that although SAIL had proposed installation of new captive power plants, the Department of Energy felt that the supply of captive power plants to steel plants would not be a wise additional investment in view of improvements in DVC. The Committee however find that power requirements by 1978-79 would be of the order of 1,216 m.w. out of which captive generation alone would be 303 m.w. The Committee however understand that recently, the Steel Ministry has revived its proposal for setting up additional power generating capacities at the steel plants and the additional

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generating capacities would be of the order of 550 m.w. of value Rs. 210 crores.

The Committee would like to be informed of the developments about the installation of captive power plants. The Committee recommend that coordinated and concerted efforts should be made by Government/SAIL to arrange for a regular and uninterrupted supply of power of required frequency for steel plants as well as to the coal mines and iron ore mines so that there is no loss of production on account of short supply of power or non-supply of power and the steel plants are run to optimum capacity. As it has been stated that setting up of a power plant takes nearly about 35 to 40 months, the Committee would like Government/SAIL to draw up a meaningful plan sufficiently in advance for power generation in a coordinated manner so that the requirements of power for the expanding steel industry not only in the 5th Plan but also in the 6th Plan period are realistically assessed and action taken to ensure that the power plants are installed in time and the requisite power is made available to the steel plants.

4.121

The Committee note that the requirements of refractories for the plants of HSL and Bokaro Steel Ltd. were of the order of 2.68 lakhs tonnes in 1972-73, 2.8 lakhs tonnes in 1973-74 and 2.69 lakhs tonnes in 1974-75. The Committee were informed that although there are a number of suppliers for fire clay bricks and three suppliers for basic bricks and five for silica bricks, there has been a shortage of quality refractories in these types and some other types of refractories. Also special refractories are not made in the country and therefore have to be imported. The Committee find that the imports were of the order of Rs. 397 lakhs, Rs. 301 lakhs and Rs. 597 lakhs

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during 1972-73, 1973-74 and 1974-75 respectively. The Committee were informed that the SAIL had in addition to taking a number of measures to make good the shortage and to remove the constraints regarding shortage of fuel oil, movement of raw materials and finished products, etc. had taken over two private undertakings, Asian Refractories (now known as Bharat Refractories) and Assam Silimanite Limited and had also decided to put up a refractory plant of a capacity of 1.37 lakhs tonnes at Bhilai to manufacture high quality refractories. In addition, letters of intent/industrial licences have been issued by the Ministry of industrial Development to the State Industrial Development Corporation of Tamil Nadu, Karnataka and Andhra Pradesh for creating additional capacities to the extent of over 6 lakhs tonnes of various types of refractories and the scheme are at various stages of implementation. According to SAIL, these refractories, when set up, will be able to meet the demands of the steel plants for production of 15.8 million tonnes in 1978-79 and 20 million tonnes in 1983-84. The Committee are also informed that SAIL had set up a refractory division with a view to coordinate the development of refractories in the country. The Committee would however stress that Government and SAIL should keep a close and continuous watch on the progress made by the refractory units in the implementation of the capacities licensed| sanctioned so that there is no slippage in the programme of commissioning and in achieving the production as per capacity. The Committee would also like the Government/SAIL to ensure that the new refractory plants are coordinated with the requirements of refractories of the new steel plants. The Committee also recommend that the quality control measures in these plants should be tightened up and improved to keep

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pace with the fast changing technology and faster rates of production in the steel industry.

36 4.122-4.123

The Committee feel that, based on the experience so far gained, it should be possible to rationalise the sizes of refractories so that it might be possible to push up indigenous production of the refractories and reduce their imports.

The Committee, however, note that the Asian Refractory Plant at Bhandaridah, Bokaro and which was under liquidation was acquired by Government and handed over to the Bokaro Steel Ltd. in 1972. Although the licensed capacity of the plant was 24,000 tonnes of fire bricks and 6,000 tonnes of silica bricks, facilities for manufacture of silica bricks or the facilities in the plant were out of balance and additional balancing equipments had to be installed to achieve the licensed capacity. The Committee find that the SAIL had prepared a detailed project report to put into commission and expand the refractory plant in two stages; the first stage to achieve a total production of 24,000 tonnes fire bricks and second stage expansion to its optimum capacity of 50,000 tonnes, the capital investment being of the order of Rs. 34.3 million in first stage and Rs. 80.5 million in the second stage. It has been stated that at 90 per cent utilisation the plant would be incurring a loss of Rs. 1.87 million in stage I and profit of about Rs. 3 million in stage II. The SAIL had decided to further explore the possibilities of reduction in capital investment and to improve profitability of the plant. Although it has been stated that the production of saleable refractories had improved over previous year, the Committee would like SAIL to critically go into the economics of the plant before finalising the decision about the D.P.R. The Committee also note that besides the constraints of raw materials and power, there are difficulties in regard to railway siding and

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| 36 | 4.124 | <p>road facility. The Committee were informed that the question of providing the railway siding had already been taken up with the railways and the question of roads with the State Governments. The Committee would like to be informed of the developments.</p> <p>The Committee note that the management of the refractory plant of Assam Silimanite Ltd. was taken over by the Government under the Industries Development and Regulation Act in November, 1972 and management entrusted to HSL. The Committee were informed that after taking over of the management of the refractory plant of Assam Silimanite Ltd. a number of measures have been taken by Government to start production and utilise the available plant and machinery to the best advantage. Accordingly the plant was commissioned in April, 1973 and production started in July, 1972. The Commission however, find that as against the envisaged capacity of 29,000 tonnes capacity in the first stage, the production in 1974-75 was only 6,118 tonnes, against which the present production capacity of 6500 tonnes. The Committee recommend that SAIL should chalk out a time bound programme and take suitable concerted measures to provide the necessary facilities so as to improve production and achieve the originally envisaged capacity of 29,000 tonnes. The Committee would like to be informed of the action taken in this regard.</p> |
| 37 | 4.164 | <p>The Committee note that irregular supply of coal is one of the factors standing in the way of consistent steel production programme. The Committee find that the supplies of coal had fallen short of the requirements during the three years—1972-73, 1973-74 and 1974-75 by 2.76, 3.44 and 1.91 million tonnes respectively. The Committee also find that during 1973-74 the coal output from collieries and washeries was affected by inadequate and interrupted power</p>  |



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supply with the result that the steel plants were obliged to keep their oven-pushings at restricted level with a view to avoiding thermal shocks to the batteries. The Committee were informed that the Government had embarked upon long term and short term programme for supply of coal to the steel plants. As a result of the series of meetings held between the Ministries concerned under the short term approach, the position improved a little and in January, 1975, the plants had six days' stock of coal. Though according to the international standards the steel plants should carry anything between three and six weeks stock depending on where the plants are situated, according to the Department of Steel, in view of the practical constraints if the steel plants in India can maintain 12 to 15 days' stock they would be reasonably safe. While noting the slight improvement effected in the position of coal stocks in steel plants under the short term approach, the Committee feel that much remains to be done if stocks up to the level of 12 to 15 days have to be built up in the steel plants to ensure a safe margin for continuous working. The Committee recommend that SAIL should intensify its efforts in collaboration with the Department of Energy and the Railways to raise the coal stocks with the steel plants to the safe level.

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4.165

The Committee find that coke oven plant in Bokaro though installed could not be put into commission as the requisite coking coal was not available, resulting in serious loss of production. They note that Bokaro Steel Ltd. was not also geared to take any coal by road. It is only now that SAIL has taken some steps to transport coal to the extent of 30,000 tonnes per month by road. The Committee also find that a ropeway connecting the Dugda washery with Bokaro Steel is now under installation at an estimated cost of Rs. 5 crores. The Committee hope that

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with these arrangements it should be possible to improve the supply of the requisite type and quantity of coal to Bokaro and step up production.

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4.166

The Committee also note that the requirements of coal of all the three qualities, namely, prime, medium and blendable for all the steel plants are expected to increase from 13.58 million tonnes in 1975-76 to 19.85 million tonnes in 1978-79. They are informed that besides a number of specific measures to improve the supplies of coking coal to the steel plants like establishing detailed linkages between washeries and steel plants, stocking of washed coal on the ground in the absence of railway siding, transport of coal by road, stabilising power supply to Dugda washeries, recommissioning of ropeway from Chasnallah to Burnpur, installation of new ropeway from Dugda to Bokaro and provision of additional siding facilities and developing new blends of coal from Hathnol and Katkona collieries etc., a committee was also set up with the Secretary, Department of Coal as Chairman to review the requirements of coal supply to steel plants during the Fifth and Sixth Five Year Plans. This Government Committee after analysing the various aspects of coal supply made a number of recommendations in its report of September, 1975, important amongst which are—(a) identification in advance of the area of potential increase in production of coking coal and keeping in readiness a shelf of mining and washery projects to be put through in case of likely demand, (b) initiating advance action for determination of quality of coal and extensive testing of blends at laboratories and plants so that blends recommended are most appropriate, (c) conducting a periodical review of the performance of washeries with a view to effect improvement in them, (d) operation of extra hours at washeries, (e) adoption of new bene-

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ficiating techniques, (f) construction of new Sudamdih and Monidih washeries expeditiously and (g) establishment in time of four prime coking coal and two medium coking coal washeries to meet the demands of Visakhapatnam and Vijayanagaram plants. In addition, a number of measures have also been suggested for conservation of coking coal. The Committee find that the requirement of coking and blendable coal by the steel plants during 1975-76 is of the order of 13.7 million tonnes and detailed linkages indicate that washeries have to improve their output over the 1974-75 levels. The Committee also note that the requirement of coking coal will increase from 16.25 million tonnes to 27.00 million tonnes during 1976-77 to 1984-85. While the availability of blendable coal is estimated to match the demand in case the steel plants accept available blendable coal from all sources, the Committee find to enable increased availability of coking coal the Technical Committee had recommended certain measures such as operation of extra hours at washeries, adoption of new beneficiation techniques etc. The Technical Committee has also observed that the major portion of the gap till 1981-82 which is likely to be widened in the event of delay in the commissioning of the new washeries, to be met by increased production of raw coal to compensate for the higher ash content in raw coal. The Committee recommend that concerted measures should be taken by Department of Power to improve the performance of washeries by adopting suitable beneficiation techniques with a view to meet the increasing demand of coking coal and also augment production of raw coal to compensate for higher ash content in raw coal.

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4.167

The Committee further note that there were difficulties in the past in utilising the full capacities of the existing 14 washeries. The Committee

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were informed that the recommendations made by a technical committee appointed in 1970 to examine the working of the washeries are under implementation as a result of which it would be possible to reach the rated capacity very soon. The Committee however find that the percentage utilisation of capacity even in 1974-75 was as low as 44 per cent in Dugdah and 63 per cent in Patherdih. It has also been stated that already steps are being taken to stabilise the power supply to Dugdah, instal wagon tippers, and also a new 40 tonne per hour capacity filter etc. The Committee hope that with these improvements and additional facilities it would be possible to improve the utilisation of the capacity in the Dugdah washeries and to supply the requisite type of coal to Bokaro to which it is linked. The Committee are also informed that as a result of the efforts made by SAIL, the out put of clean coal during 1974-75 at the washeries belonging to HSL, TISCO and IISCO has increased by 18.5 per cent and that at NCDC washeries by 15.6 per cent over 1973-74. It has also been stated that Gidi washery which was lying idle for the last few years due to lack of offtake has been activated. In addition, there are also plans to set up two more washeries for prime coking coal and two for medium coking coal.

The Committee would like SAIL to examine the question of setting up these washeries on the most modern lines in coordination with the Ministry of Energy and stress that there should not be any let up in the efforts to improve both the quality and the quantity of coal from the washeries.

41 4.168-4.169

The Committee were informed that there had been a trend of deterioration in the quality of coking coal as more and more of higher grade coal was being used up and constant endeavour was being made to improve the performance of

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coal washeries. With a view to accommodate inferior grades of coals and also to regulate the technological process at the plants to use lower grades of coking coals, steps are also being taken with Central Fuel Research Institute so that new types of coal were tried and introduced for coke making for the steel plants.

The Committee would urge that Government/SAIL should keep in view the recommendations made by the Committee of Secretaries in September, 1975 and also ensure that the recommendations made by the Estimates Committee in paragraphs 6.23, 6.24 and 6.26 of their 68th Report of 1974-75 about the programme of washeries are implemented without loss of time. The Committee also recommend that proper standards of operation and maintenance are observed so that appropriate quality of coal/suitable blends of coal of minimum ash content are available to the steel plants.

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4.170

The Committee also recommend that proper linkages of coal with the appropriate quality and the requisite quantity should be established well in advance and tied up with the steel plants so that the steel plants are not faced with the constraints of non-availability of requisite quantity and the quality of coal. The Committee recommend that Government should review the requirements of coal of steel plants at the commencement of each plan and review the position of coal supplies and the constrain, if any, every year so that suitable remedial measures may be taken in time to overcome such constraints, and supply of coal ensured.

4.171

The Committee ote that in the case of coking coal supplies to Durgapur there had been a gradual deterioration in the quality of coal because of cheaper mining. While according to the project report the ash content of the coal blend was to vary between 16 and 17 per cent, the

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actual ash content for the period 1969-70 to 1974-75 varied between 20.1 and 21.3 per cent. Although the loss of production because of higher ash content was not susceptible of quantification, it has been reported that there had been loss of productivity to the extent of 4 per cent per every one per cent rise in ash content in coal. The Committee were informed that measures like increasing production of washery at Durgapur Steel Plant, increasing the allocation of washed coal from BCCL washeries to Durgapur from 20,000 tonnes per month to 35,000 tonnes per month and constant dialogue with the CMAL and BCCL for improving the quality of direct feed have been taken with a view to improving the quality of coking coal. The Committee would like to be informed of the results achieved by these measures and would also like to watch the improvements in this regard.

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4.172

The Committee note that the Department of Coal and Department of Power have been brought under one Ministry of Energy and BCCL has been brought under the Department of Coal. Department of Steel/SAIL have developed a very close co-ordination with the Department of Coal and BCCL and all problems with regard to availability of coking coal in terms of adequate quantity and quality are being continuously sorted out with the Department of Coal. The Committee hope that this co-ordination will ensure smooth and regular supply of coal of adequate quantity and appropriate quality to the steel plants. The Committee would, however, stress that there is need for a perspective plan in regard to requirements of coal and close co-ordination between SAIL, Coal Mining Authority, Ministry of Energy, Railways and the plant authorities so that there may not be any stoppages on account of non-availability or inadequate availability of coal.

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| 44 | 5. 17<br>to<br>5.19 | <p>The Committee note that SAIL has revised its policy for distribution with a view to ensure movement of Steel materials in bulk from the steel plants for optimum utilization of wagon capacity, availability of materials at consuming centres in adequate quantity at all times, elimination of cumbersome procedures for procurement of steel and consequent reduction of inventory with the consumers; and allocation of Steel on priority to Defence, Engineering, Exports, Power, Steel and Coal sectors.</p> <p>Some of the salient features of the revised distribution policy relate to allocation of steel by the Steel Priority Committee on a six-monthly basis, despatches from the main producers being made directly to about 800 major steel consumers; the balance allottees being provided steel by the Steel Priority Committee through the stockyards of the main producers, suitable expansion of the compact group of industries and dispensing with the stipulation for deposit of earnest money while booking indents for steel materials.</p> <p>The Committee were informed that the present distribution policy had resulted in a number of improvements and was working satisfactorily. The Committee were further informed that as a result of these measures, steel has become easily available as compared to a position of shortage which was experienced in the past and open market trading in steel above a regulated price is reported to have disappeared in the case of most of the steel items. The Committee would like Government/SAIL to keep a continuous watch on the working of new distribution policy with a view to ensuring that the shortcomings of the old system are completely eliminated and the objectives envisaged under it are actually achieved and the priorities fixed for the use of steel are not disturbed and there is no mal-distribution or scarcity of steel.</p> |

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| 45 | 5.20               | The Committee were informed that as a measure of improvement, steps were being taken to reduce the time lag between the indenting and allocation from the present level of about 6½ months to two months for all indentors. The Committee desire that concerted measures should be taken to reduce the time lag between indenting and allocation/supply of steel to the minimum which should not normally exceed two months.  |
| 46 | 5.21               | The Committee note that according to the revised procedure, the stock-yards will supply steel to (1) SPC allottees who do not receive steel directly from the plant-basically smaller allocation, (2) local and State Government Departments. The Stock-yards will also handle larger quantities of prime steel than hitherto. To strengthen the stock-yards, an independent Audit Group with Headquarters in Calcutta has been set up by SAIL (a) to ensure that the stockyards adhere to the Government's policy for distribution of steel, (b) to suggest ways and means of serving the consumers better, and (c) to simplify the procedures to help quicker and efficient distribution.   |
| 47 | 5.22<br>to<br>5.23 | The Committee also note that with effect from 2nd May, 1975 a new distribution system has been introduced which envisages despatch of bulk of iron and steel materials from the steel plants in rake loads to stock-yards of main producers and distribution of these to customers. The stock-yard facilities have also been improved by constructing new siding facilities, equipping stockyards with additional cranes and handling equipments, expanding of existing yards, opening new stock-yards in important steel consuming centres, opening delivery points in important major steel consuming centres and in places of industrial concentration etc. It has been stated that according to the new distribution procedure material to stock-yards will move according to |



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pre-determined demand of consumers in the area including steel priority Committee materials. It is, however, apprehended that there would still be cases where some items not matching the demands would come up during the course of production which have to be moved to stock-yard as a normal marketing channel, though effective steps have been taken to reduce such arisings to the minimum. It is also stated that steel consumers may obtain their requirements either from small scale Industries Corporations to whom supplies are generally made direct from the plants or from producers stock-yards depending on the availability. Since adequate and easy supply position is ensured, it has been stated that opportunities for illegal deals in steel by traders have been substantially minimised.

While the Committee feel that with the implementation of new distribution policy and with increased production of steel, it should be possible to make steel easily available to all consumers. The Committee recommend that the working of the new distribution procedure and working of stock-yards should be kept under contant and continuous review and necessary improvements made in the light of experience gained to ensure that steel is available easily to all consumers and the stock-yadrs serve the purpose for which they have been set-up.

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5.24

The Committee note that in order to meet the requirements of units manufacturing agricultural implements, steel scrap is supplied from Producers' stock-yards as per quota fixed by the Joint Plant Committee and all other items are supplied to the State Small Industries Corporations and the State Agro-Industries Corporations who co-ordinate the supplies to agricultural implements manufacturers. Iron & Steel is supplied at stock-yard prices or at State Corporation prices. The Committee recommend that in order to ensure that agricultural operations are not ham-

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pered for want of adequate supplies of agricultural instruments, priorities should be fixed for the iron and steel required for such implements on the basis of assessments made through sponsoring authorities. They have already given their recommendation in para 5.47 of this Chapter that SAIL should make sure that prices of iron & steel for agricultural needs are kept within reasonable limits.

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5.47

The Committee note that a system of dual pricing policy was adopted and implemented by SAIL with effect from 15th October, 1973 (i) to ensure supply of steel to meet the bulk of the requirements of priority needs of Government Departments. Public Sector and some sectors of industry at low prices based on cost of production and minimum return to producers, (ii) to permit prices of the other categories of steel to be fixed in relation to supply and demand and (iii) to mop up the surplus profit in the open market and with steel users so that the internal resources so generated are used for expansion and growth of steel industry. They were informed that the new pricing policy had the expected effect of reducing premium in certain varieties, unwanted consumption of steel, cement and timber, eliminating black market in steel and mopping up surplus profits and that its working was being continuously reviewed. It has also been claimed that the psychology of shortage had changed to one of easy availability. While the Committee appreciate the rationale to provide steel for public sector and some sectors of industry at lower prices, and to permit prices of steel for general use to be fixed in relation to demand and supply, they feel that SAIL should keep a constant vigilance on open market prices and ensure that the mechanism of supply *vis-a-vis* demand does not in any way operate to the detriment of the consumers. The Committee would

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like SAIL to keep the working of the dual pricing policy under review in order to ensure that the purpose with which the policy has been introduced is actually achieved. The Committee would like SAIL to examine in particular the effect of dual pricing policy on implements, pumpsets and other such things used in agricultural sector and see whether the prices of steel used to meet the requirements of agricultural sector are within reasonable limits.

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5.48  
to  
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The Committee were informed during evidence that when the SAIL went in for dual pricing policy, an inter-ministerial Committee on such retention prices went into the costing of the various plants and came to the conclusion that out of the price increase in certain categories of steel, a portion of increase will remain with the plants and the rest would be put in a fund called the Central Fund. This money would belong to the Profit and Loss Account of the individual company and could be used for development and expansion of the company concerned. The Committee were also informed that the Steel Plants had started depositing the additional profits, viz., the excess of selling price over the retention prices, into the Central Fund. Withdrawals from the Fund were allowed for the purpose of capital outlay under schemes approved by SAIL in consultation with the Planning Commission. The Committee were, however, surprised to learn during evidence that practically there was no money left in the Fund as all the time there was inflow and outflow. The Committee recommend that the steel plants should not use the Fund as a current account in a bank to meet their day-to-day needs but should build up the Fund to meet the capital outlays on duly approved schemes for the growth and expansion of steel industry for which it was envisaged.

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|    |                    | <p>The Committee would like the Government/SAIL to keep a close watch on the working of the Central Fund with a view to see that the moneys put in the Fund are utilised for the purpose for which this fund has been set up.</p>   |
| 51 | 5.50<br>to<br>5.51 | <p>The Committee were given to understand that there have been disparities between prices at which smaller units were getting steel from stockyards and the prices at which steel was being supplied to bigger units direct from the plants. The Committee were informed that the question of disparity between the prices at which the smaller units got steel from stockyards and the prices at which the bigger units got steel from the Steel Plants was being discussed by SAIL with other Ministries and the Government would consider the difficulties of the small units. The Committee would like to be informed of the developments. The Committee recommend that SAIL should evolve a procedure by which such disparities are eliminated. The Committee would like to be informed of the action taken.</p> <p>The Committee however find from the new distribution scheme effective from 2-5-1975, that small consumers may obtain their requirements either from Small Scale Industries Corporations to whom supplies are generally made directly from plants or from producers' stockyards depending on availability. They can thus cater to needs of small units attached to them. The Committee hope that with the introduction of the new distribution scheme, any disparity in prices would be eliminated.</p> |
| 52 | 6.11<br>to<br>6.12 | <p>The Committee note that imports of iron and steel amounted to 12,37,083 tonnes in 1972-73, 10,55,954 tonnes in 1973-74 and 920,858 tonnes in 1974-75. It has been stated that the total demand for various categories of mild steel in 1975-76 has been tentatively estimated to be about 6.2 million tonnes, of which about 90 per cent would be met by indigenous supplies while for the re-</p>   |

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maintaining 10 per cent imports of very special categories of steel, which are either not produced or the production of which may be less than required, like, boiler quality plates, ship building quality plates, etc. would be necessary. The imports during 1975-76 are estimated to be about 3 lakh tonnes as against 9 lakhs in 1974-75 and the main cut would be in hot rolled coil which is expected to be available from Bokaro. The Committee are informed that in aggregate terms even in 1975-76, the country would be self-sufficient in steel and that it is already self-sufficient in various categories like steel billets, steel bars and rods and certain railway materials. The Committee are further informed that the SAIL has made out a pattern by which the country would be self-sufficient in total tonnage and would have certain surpluses also but still certain types of steel would have to be imported as it was neither technologically possible nor economically desirable for a country to be self-sufficient in every category of steel. It is claimed that SAIL has succeeded in reducing the imports considerably by two waves (1) new production coming in, and two, (2) by changing the product-mix to meet the demands which were met earlier by imports and utilising the capacity in such a way as to reduce the imports to the minimum.

While the Committee note that the import of iron and steel have come down progressively from 1972-73 the Committee recommend that Government should appoint an Expert Committee to go into the question of reduction of imports and diversification of product-mix so as to attain self-sufficiency in steel. The Committee would like to be informed of the action taken within three months of the Report.

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6.33  
to  
6.34

The Committee note that SAIL International Ltd. has been incorporated with effect from 10th June, 1974 to coordinate the export and import business and during 1974-75 exports were to the

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extent of 52,135 tonnes valued at Rs. 1092.73 lakhs as against 36652 tonnes valued at Rs. 462 lakhs in 1973-74. The Committee note that Government recognised the need for organising steel exports in a balanced way and made SAIL International Ltd. as the canalising agency not only for exports but also for imports so that available exports market intelligence and bargaining strength could be properly integrated under one umbrella. During 1974-75 it is stated that SAIL processed 37 export applications besides orders for exports of billets, slate bars and rods, rails pig iron etc. to Iran, Turkey, Sri Lanka, Bangladesh and Kenya to the tune of Rs. 58 crores. As a canalising agency for imports orders worth Rs. 18.23 crores have been released. The activities of SAIL International Ltd. during 1974-75 resulted in net profit of Rs. 11.25 lakhs. The Committee would like to watch the performance further.

The Committee need however hardly stress that the SAIL International Limited should organise its activities in such a way as to maximise the exports and minimise the imports. As the price of steel in the international market is rising and great development programmes requiring steel are under way in petroleum producing countries, it should be possible for SAIL to effect greater exports to these potential markets of great promise. The Committee need hardly stress that every care should be taken to keep the expenditure on SAIL International to the minimum so as to service the exports and imports at most competitive rates.

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7.27  
to  
7.33

The Committee note, that at the conference of Chief Executives held on March 20-22, 1974. the information system towards the monitoring and evaluation of performance of subsidiaries of SAIL had been decided. The broad outlines of the new system comprise daily and fortnightly reports covering production despatches and stocks; monthly reports covering production

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*vis-a-vis* targets, comparison of performance with that of the same month of the previous years, constraints, profit and loss position and the cash flow statements; the quarterly reports cover production performance and constraints thereto including industrial relations situation; profit and loss position and the cash flow statements. The existing system essentially comprised periodical reports in selected areas, follow up action at various levels and monthly reporting to Board.

The Committee also learn that SAIL monitors the movement of coking coal and regular coordination is maintained with the Railways for the movement of raw materials and with Damodar Valley Corporation, Orissa State Electricity Board and others and with CPWC at Delhi for the supply of power.

The Committee have been informed that the production of the plants is monitored at SAIL level on a daily basis. Daily control report and 10 day reviews are also sent to the Chairman and Minister of Steel. The SAIL Board reviews the production at the subsidiaries at its meeting held every month.

Periodical reports from the subsidiaries are obtained with the object of exercising internal financial control and these are analysed in depth to locate the sensitive areas so that corrective action can be initiated. The working results of the subsidiaries were monitored every month and the same reported to the Board of Directors of SAIL. An Internal Audit Manual for SAIL had been compiled and the same had been brought into use w.e.f. May, 1974.

With regard to internal control of commercial activities, the Committee are informed that the SAIL is getting periodical reports on production and despatch performance, plant-wise sales value

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of home despatches, stock-yard operations, import operations, stocks of steel etc. from all the producers. These are tubulated and submitted to Chairman and Directors of SAIL. The Committee also learn that supply of steel to the economy-source-wise and category-wise, monthly trends in total iron and steel stock at the plants and monthly trend in the market prices of selected items of steel are being monitored and put-up to the SAIL Board monthly. Similarly monthly reports are received from the plants in regard to important construction activities.

The Committee note that in addition to general reports, the special monitoring is done from the fortnightly reports of the producers in respect of items like despatches of steel, stockyard operations, point-wise delivery and stock position, import operations, sales-plant sales, stockyard sales, export sales, import sales-etc., stock of steel in perspective at plants at stockyards and imported materials. The Committee have also been informed that close liaison is maintained between personnel department of SAIL and the subsidiaries on all important matters in the field of industrial relations, which are generally dealt with in the Joint Negotiating Committee and by the plant management acting in close consultation with the Personnel Directorates. Reports on research and development are also received on a quarterly basis and these are scrutinised by the SAIL and appropriate assistance rendered to the units.

While the Committee note that SAIL had a management information system and system of internal control to over-see the functions of production, financial, commercial, personnel, vigilance and other areas, the Committee recommend that the working of the information system and the internal control should be subjected to a critical and continuous review so that the submission



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of these reports are meaningful and are such as to enable SAIL to plan its strategies of production for best utilisation of the existing capacity, determine priorities and pinpoint constraints in the achievement of the production targets so that appropriate and timely action could be taken in these matters. The Committee also suggest that in order that the system be effective and a realistic evaluation of the performance may be done, it is necessary that, on the basis of experience gained, a suitable proforma for getting on these reports should be evolved so that information on several aspects of the working of the subsidiaries is obtained on a uniform basis for specific periods and at regular intervals. The Committee would also like SAIL to ensure that these reports do not become a mere formality with the passage of time and that they are received regularly and in time and systematically and critically analysed with particular reference to priorities of planning production achievements, *vis-a-vis* the targets, constraints in the matter of achieving production by way of movement of raw materials, supply of power, maintenance of plant and machinery, lack of adequate inventories, ores, despatches, sales and other activities so that corrective action is initiated in time and the subsidiaries are afforded the necessary assistance to overcome these constraints and improve the performance. Specific reports about the cost of production and productivity should also be made out and brought to the notice of Board of Directors with a view to having effective control on costs and improving productivity.

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7.34

The Committee also recommend that a critical comparative evaluation of the performance of the plant may be made so that the contributory factors which were responsible for better perfor-

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|    |                  | mance in any plant can with advantage be utilised in the others.  |
| 56 | 8.6<br>to<br>8.7 | The Committee note that Government have authorised the SAIL to sanction capital expenditure including new schemes upto Rs. 10 crores where funds can be found from within the budget allocation.<br><br>The Committee would like SAIL to ensure that the delegation of powers is worked properly and new schemes costing less than Rs. 10 crores are really such as to improve the working of the existing plants or such as will be in the over-all national interest. The Committee suggest that before launching such schemes, the financial viability of each of these schemes should be critically examined and approved by SAIL/Government. |
| 57 | 8.8              | The Committee also note that SAIL has so far approved under these delegated powers 13 schemes each costing less than Rs. 10 crores of which two schemes relating to Dugda I and II had already been completed and the remaining 11 schemes are at various stages of execution. The Committee recommend that SAIL should monitor the progress of execution of these schemes to ensure that these projects are completed not only within the time schedule but also within the capital cost already sanctioned for them.  |
| 58 | 8.9              | The Committee are informed that there are five schemes costing more than Rs. 10 crores each which have already been approved by Government before formation of SAIL, two of which have been completed. In addition, there are seven more schemes two of which have been approved by Government and rest awaiting approval of the Government. The Committee find that one of the schemes—Donimalai Pelletisation Plant, the estimated cost of which is Rs. 33.03 crores would work in a loss of Rs. 1.7 lakhs per year   |

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after paying Rs. 1.5 crores export duty if the project were to work at 90 per cent capacity. They recommend that before a final decision is taken in the matter, the economics of the project should be carefully gone into so that investment on the project does not result in any loss. The Committee also find that two schemes namely augmentation of in-plant generation for Rourkela Steel Plant CRGO (RSP) which have been approved by the *Ad hoc* Committee more than one year back are yet to be finally approved by the SAIL Board. The Committee see no reason why it has taken SAIL more than one year to examine these schemes and take a final decision.

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8.10

The Committee are informed that the schemes when implemented would improve the over-all profitability of the plants. Some of them would increase production straightaway or bring about important replacement, without which production would fall or would involve in-plant generation like supply of power, etc. for immediate requirements and some other would obviate or minimise imports and save foreign exchange. The Committee recommend that SAIL/Government should critically go into the economic viability of each of the projects and also ensure that the implementation of these projects would actually improve the working of the existing plants and take a decision in the best interest of the organisation and also determine *inter-se* priorities for execution of these schemes in the context of its importance to the steel industry and the country as a whole. The Committee would also like SAIL/Government to ensure that once a scheme is taken up for execution after approval, it should be completed within the time and the cost schedule fixed for the project so that the results anticipated of it really accrue and the funds invested thereon are not unnecessarily blocked.

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| 60 | 8.19<br>to<br>8.22 | <p>The Committee note that there is a proposal for setting up a central workshop to produce certain medium and heavy range of vital spare parts common to the steel plants. The intention is that, besides reducing dependence on imports for these spares, in the process of manufacturing these spares, it would be possible to develop skills and capabilities which could be of better service in the years ahead when the steel base in the country is enlarged. The other consideration is that, in the proposed workshop, spares which are not mass production items and cannot sometimes be got off the shelf would also be manufactured.</p> |

The Committee were informed that the estimated cost of the proposed workshop was Rs. 20 crores a year ago and it may be more now. They are also informed that though some of the spares would be made by Hindustan Machine Tools Ltd., Heavy Engineering Corporation, Mining and Allied Machinery Corporation, these undertakings were basically engaged in manufacture of capital machinery or complete parts and were not producing recurring spares.

The Committee also find that a feasibility report was prepared by MECON and submitted to SAIL in July-August, 1975 and MECON had also recommended centralised facilities for the manufacture of certain type of spares. It has been stated that the report is still under the consideration of SAIL.

While the Committee agree that there is need to reduce dependence on import of spare parts required by the steel plants and for developing indigenous capacity for production of spares to meet the future needs of the steel industry, the Committee feel that Government and SAIL should, before taking a decision on the setting up

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of a workshop, take stock of the existing idle capacity in machine and machine tool manufacturing units in public sector like Hindustan Machine Tools Ltd., Heavy Engineering Corporation, Mining and Allied Machinery Corporation, etc. and also in the medium and small scale sectors to see how far such available spares capacities could be advantageously diversified for the manufacture of spare parts for the steel plants. In the opinion of the Committee such diversification would not only result in saving of capital investment of more than Rs. 20 crores by SAIL in the establishment of workshops solely for the manufacture of spare parts but would also help in full utilisation of the available capacities in other public undertakings.

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8.43

to

8.46

The Committee note that in the context of expansion of Alloy Steel Plant the question of the present product-mix and that during expansion was examined by a steering group formed by HSL and later by a sub-committee of the steering group appointed by the Ministry. As a result of the examination and a series of discussions from time to time it was decided by the Ministry in 1972 that a second look should be taken on the whole question and the work was remitted to a departmental group of officers.

The Committee note that though an expert group which was formed by Government to study the expansion of the Alloy Steels Plant at Durgapur from its present capacity of 1 lakh ingot tonnes to 3 lakh ingot tonnes had submitted its report to SAIL as early as June, 1973, Government had not taken any decision regarding the product-mix for the proposed expansion of the Alloy Steels Plant. The Committee were informed that the expert group had *inter-alia* made the following recommendations:—

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- (i) present capacity should first be achieved;
  - (ii) a jobbing mill should be set up for rolling high alloy steels of about 6—10,000 tonnes per annum capacity;
  - (iii) A cold rolling mill complex for the production of 30—35,000 tonnes of stainless steel should be set up. To start with, hotrolled strips should be imported and rolled in this complex, and later on these could be produced in one of the major steel plants, namely, Durgapur, TISCO or Rourkela. At that stage, the blooming mill could be utilised for rolling stainless steel ingots into slabs with the commissioning of cold rolling mill complex. It would be difficult to utilise the existing sheet mill complex for production of stainless steel sheets since the product would be inferior in quality and considerably more expensive. A detailed study would have to be made about the future of the sheet mill.

The Committee were also informed that the SAIL had commissioned the Metallurgical and Engineering Consultants (India) Limited for the preparation of pre-investment feasibility studies for the expansion of the Alloy Steels Plant on the basis of the recommendations of the group. The installation of a jobbing mill was also examined by SAIL. In addition, a provision of Rs. 21 crores was made in the draft Fifth Five Year Plan for the expansion of the Alloy Steels Plant and a separate provision of Rs. 47 crores for installation of a seamless tube plant. The expert group had also considered the economics and financial viability of the plant with the present product-mix and after expansion with a different product-mix and arrived at different figures of profit and loss

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in respect of the Alloy Steel Plant and also the seamless tube plant.

The Committee however find that the Alloy Steels Plant utilised only 61 per cent of its capacity in 1972-73 and 55 per cent in 1973-74. Though the capacity utilisation has improved to 78 per cent in ingots during 1974-75, there was still an unutilised capacity of 22 per cent. The Ministry are stated to be of the view that expansion should be thought of when production reached 85 per cent of the capacity and efforts should be made to improve the position regarding power and industrial relations. The Committee expect that SAIL would in the context of the emergency take the necessary measures in these respects to attain the rated capacity of the plant. The Committee also suggest that SAIL should take action to expedite erection and commissioning of the jobbing mill with a view to setting right the imbalances in production facilities. In view of the existing unutilised capacity, the Committee recommend that any decision about the expansion programme of the Alloy Steels Plant, Durgapur or setting up additional capacity for alloy steels elsewhere may be taken after ensuring full utilisation in a sustained manner of the existing capacity of Alloy Steels Plant, Durgapur and also after a thorough and critical examination of the report of the study group and the feasibility report of MECON consistent with the different kinds of product-mix and the profitability of the plant and also demand for alloy steel in the country. The Committee also recommend that Government should review the estimates for demand and supply of alloy and special steels realistically and take suitable measures to increase the production of these steels so as to reduce dependence on imports. The Committee would like to be informed of the action taken in this regard.

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| 62 | 8.57      | <p>The Committee regret to note that while a decision to set up the Visakhapatnam and Vijayanagar Steel Plants was taken as early as in April, 1970, the DPRS for these projects are still in the process of being assigned to consultants even after a lapse of 5 years. At the meeting of the Public Investment Board held on 24-10-1973, the SAIL was authorised to take action for the preparation of DPRS for Visakhapatnam and Vijayanagar Steel Projects and in the meantime work regarding land acquisition and on essential preliminaries within the plan and budget allocation should go on. They learn that for the Visakhapatnam Steel Project out of 5700 acres of land required, 5335 acres had been acquired and for Vijayanagar Steel Plant out of about 9,000 acres of land about 7116 acres of land had already been acquired. Certain other items of work, such as, topographical surveys and soil testing, testing of raw materials, requirements of Water &amp; Power during the construction and operational stage, provision for railway facilities and development of communications had been completed. The Committee recommend that SAIL/Government should so plan the implementation of the projects that the ancillary facilities and inputs actually become available before the projects are commissioned.</p> |
| 63 | 8.58-8.61 | <p>The Committee were informed that the capital cost estimates prepared in 1970-71 (Visakhapatnam-Rs. 854.47 crores, and Vijayanagar-Rs. 854.00 crores) were not very relevant in the present context in view of the high capital cost of the plant and equipment and raw materials. The revised cost and profitability estimates would be covered in the DPR for these two plants.</p>  |

The Committee also note that the work regarding preparation of DPR for the Visakhapatnam Steel Project would be entrusted to M/s.



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M. N. Dastur & Co; Pvt. Ltd. and that for the Vijaynagar Steel Project would be entrusted to MECON (India) Ltd. The selection of the consultants was decided at the highest level keeping in view their competence and the relative workload already with them. The assignment for preparation of the DPRS would be given to the consultants shortly and the DPRS would become available by the end of 1976. The Committee find that the SAIL/Department of Steel are thinking of making a study of the product-mix requirements of these two plants which will be passed on to the consultants at the DPR stage.

The Committee are concerned to note the situation which has arisen on account of the poor off-take of steel and the consequent stock-piling and the likely effect the present trend of increased production will have on such stocks. The Committee would therefore like SAIL and the Government to have a fresh look at the requirements of the various kinds of steel in the country so that a realistic assessment of the demand may be made before a decision on the product-mix requirements is taken and DPRS finalised. The Committee would also like Government and SAIL to ensure that, in planning and deciding on the product-mix of the new plants, imports of steel which are now being made in certain critical areas, are as far as possible reduced to the minimum.

The Committee would like SAIL and Department of Steel to conclude the study of the product-mix requirements keeping these factors in view so that the assignment of work of preparation of DPRS which is already delayed is expedited. Once the work is assigned to consultants, the Committee recommend that SAIL/Government should keep a close and continuous watch

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|    |           | to see that the DPRs become available by end of 1976 as envisaged.   |
| 64 | 9.31      | <p>The Committee note taht SAIL as a holding Company has taken a number of significant steps to bring together the management of the subsidiaries and the trade union leaders both at the local and national levels so as to promote better understanding and create proper climate for fulfilling agreed production targets. One such special meeting of the Joint Negotiating Committee in which representatives of Central Trade Union Organisation and the recognised unions from each plant participated, resulted in bringing the management and the union closer for appreciating the problems in the Steel Industry and reaching agreements on targets of production. The Committee recommend that the working of the system of the Joint Negotiating Committee may be reviewed so as to strengthen it in the interest of improving performance.</p> |
| 65 | 9.32-9.33 | <p>The Committee also note that in a Conference of Chief Executives of subsidiaries of SAIL held in New Delhi in March, 1974 a broad framework for an action plan for maintaining harmonious industrial relations was drawnup. The plan provided for management's role in bipartite Committees, negotiating wage agreements, relations with trade union organisations, provision of food in industrial townships, housing and other welfare amenities etc.</p> <p>The Committee were informed that though by and large industrial relations were stated to have been good and sound, there was intermittent trouble in Rourkela and difficulties in Durgapur. The Committee also note that the Action Committee on Public Enterprises have made certain recommendations emphasising <i>inter alia</i> the need</p>   |

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for the General Manager allocating the task of implementing the various provisions of the Report as a time-bound programme, for strengthening the Personnel Department of the Durgapur Steel Plant, and creation of a more effective and objective recruitment system, institution of intensive and imaginative training programme for officers in the Personnel Department so as to acquire ability to deal with human problems with initiative, imagination and determination. The Committee would like that SAIL/Ministry should provide suitable guidelines to the subsidiaries in order to strengthen the industrial relations keeping the recommendations of Action Committee in view and ensure that they are implemented within a specified time.

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9.34

The Committee also note that in regard to Alloy Steels Plant through the Action Committee had given their recommendations as early as 1974, no follow up action had been taken so far thereon. The Committee recommend that Government/SAIL should take steps to implement the recommendations of the Action Committee in the interest of bettering the industrial relations in Alloy Steels Plant, which is understood to have shown some improvement.

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9.35—9.36

The Committee also note that in Bhilai Steel Plant an incentive Bonus Scheme has been introduced based on productivity of workmen in groups in order to have better control on inputs and achieve rated capacity of production.

The Committee note that incentive schemes had been introduced in the steel plants of HSL since 1961-62 with a view to provide necessary motivation for the workers to achieve rated capacity of the various units of the plants. The Committee also note that as in the Durgapur Steel Plant this incentive scheme was not effective, a

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revised incentive scheme was introduced with effect from 2-2-1974, which was purely related to production as against the productivity oriented scheme adopted in certain departments of Durgapur Steel Plant earlier. The Committee also find that loss of production due to labour troubles has been considerably reduced. According to SAIL it is difficult to isolate the impact of incentive scheme on production. The Committee would like that the working of the scheme should be carefully watched and its impact on productivity should be carefully assessed.

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9.37

The Committee are glad to note that the recommendations made in their 17th Report (1971-72) on Personnel Policies and Labour Management Relations in Public Undertakings about participation of workers and their representatives in Management of Public Undertakings at all levels beginning from the shop level to the Board of Directors has been accepted by Government and suitable guidelines have been issued by Government in this behalf. The Committee hope that Government/SAIL would keep these in view and implement them as early as possible both in letter and spirit and ensure workers' participation at all effective levels in the interest of increased production and better industrial relations.

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9.60-9.61

The Committee find that SAIL/HSL has developed its own Recruitment & Training Procedures and till end of March, 1974, as many as 18,406 persons have been trained in different categories. The Committee also note that in the initial stages, HSL had to send a number of engineers & technicians in foreign countries for training. The Committee are glad to note that with the development of training facilities at the HSL plants, it is no longer necessary to send personnel abroad for training except in areas where there is need for specialised knowledge and technique.

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which are not available in the country. The training in foreign countries is generally covered under foreign aided programmes under bi-lateral agreements. The Committee are informed that till end of March, 1974, 2795 persons of the different plants have been trained abroad. The Committee hope that with the expertise developed so far it should be possible for SAIL to develop training programmes in all faces of steel production suited to Indian conditions and obviate the necessity for foreign training abroad as far as possible.

The Committee would, however, caution that SAIL should lay down strict procedures for manning the different units and develop staff standards for different activities and ensure that overheads and levels of supervisions are not excessive.

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9.69-9.70

The Committee note that the yardstick for measuring labour productivity in steel plants is expressed in terms of "ingot tonnes per man year" and is calculated after taking into account the production of ingot steel and 25 per cent of pig iron for sale and the man-power employed (direct and indirect). They observe that the Mehtab Committee, which examined the question of labour productivity in steel plants, had expressed the view that it should be possible for HSL plants to raise the productivity to about 125 ingot tonnes per man year and above in each of the steel plants. The Government informed the Committee on Public Undertakings in 1971-72 that HSL has set to achieve a target of 100,90 and 95 ingot tonnes of steel per man year in BSP, DSP and RSP respectively by the end of current expansion of the steel plants. The Committee regret to note that SAIL/HSL has not only failed to improve the productivity over 1969, it has not

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even been able to maintain the productivity in any of the steel plants.

The Committee also note that the labour productivity in steel industry abroad in 1972 was 303 tonnes of crude steel per man year in Japan, 195 in West Germany and 252 in USA as compared to the highest labour productivity of 71 ingot tonnes per man year achieved in India in Bhilai in 1969. The labour productivity figures in Indian steel plants and those in the steel industry abroad are stated to be not comparable because in foreign countries many activities are done on contract and the man engaged thereon are not taken into account, the level of automation there is much higher and man-power figures in India include indirect labour required for administration, township and medical services also. While the labour productivity figures in Indian Steel plants may not be comparable with those in the steel industry abroad, the Committee cannot appreciate the reasons for wide variations in the labour productivity figures in the various steel plants in India. In 1973-74, while the labour productivity in Bhilai was 63 ingot tonnes per man year, it was almost half of this figure in Durgapur (33) and over less than half in IISCO (24). In Rourkela and TISCO too, it was as low as 42 and 40 respectively. They would like SAIL to investigate the reasons for the sharp variation in the labour productivity figures in respect of the different steel plants in India with a view to devising ways and means of bringing them upto an optimum level.

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9.71

The Committee further observe that steel plants abroad, i.e. Japan, West Germany and USA had been able to raise their productivity of labour from 247, 122 and 235 ingot tonnes per man year

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in 1969 to 303, 195 and 252 ingot tonnes per man year respectively in 1972. In case of India, the productivity of labour which in 1969 was 79, 39 and 47 ingot tonnes per man year in Bhilai, Durgapur and Rourkela steel plants respectively for works and Administration Personnel came down to 63, 33 and 42 ingots tonnes per man year respectively in 1973-74. The Committee are constrained to note that whereas the steel plants in the countries abroad have improved their labour productivity, in case of HSL steel plants, it has deteriorated. They feel that even if labour productivity of countries abroad is not comparable with that of India for reasons indicated by SAIL, improvements in productivity is an imperative need for all progressive and developing industries. They desire SAIL to examine the matter critically analyse reasons for deterioration in productivity and take suitable steps to improve its productivity and try to achieve the minimum level of productivity of 125 ingot tonnes per man year as set forth by the Mehtab Committee.

72 10.57-10.58

The Committee note that the basic idea of setting up of SAIL has emerged out of the experience of the manner in which the public sector enterprises were run, the desire to accelerate the returns from the enterprises in which much resources were ploughed and to handle the Public sector enterprises in a more professional manner by persons having commercial and industrial experience. The Committee however find that there are differences between the holding companies in Sweden, Italy and France where the holding companies are mostly financial institutions and devices through which the Government seek to gain control over crucial sectors of economy though they also observe the basic concept that entrepreneurial decisions should rest with those companies.

The Committee are informed that the concept of SAIL basically is that it would be respon-

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sible for the coordinated and efficient functioning of public enterprises in the field of steel and associated in-put industries and that it will discharge this responsibility on the basis of commercial and cost effective principles and at the same time ensure full compliance and furtherance of the socio-economic objectives of the setting up of the public sector and that the operational programme and development of the enterprises are conducted in accordance with the national plan. The Committee have already given their observations in regard to the part played by SAIL in the coordination of in-puts, cost of production, etc. in the relevant chapters of this report. The Committee would, however, like to point out that though at the time of formation of SAIL the Bharat Coking Coal Limited and Washeries had been made the subsidiaries of SAIL as a holding company, these have now been taken out of SAIL and transferred to the Department of Coal. The concept, therefore, that all undertakings dealing with in-puts required for the steel production should be under one umbrella of SAIL, has thus got modified to some extent. Although the Committee have been informed that coordination is maintained by SAIL even after such a change with the Department of Coal, the Committee would like to watch the functioning of this arrangement for some time after the change.

73 10.59—10.63

The Committee also note that the Chairman of the Steel Authority of India besides being the chief executive of the company is the Secretary of the Department of Steel. It was stated that the rationale behind this decision emanated from the concept that the holding companies should exercise entrepreneurial functions on behalf of the Government, marshal and operate investments in areas considered as core and strategic, the operations and management should be run



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on sound industrial and commercial principles; and performance evaluation of the holding company and the subsidiaries should be undertaken in the context of physical norms and targets laid down by the Government. It has been claimed that the individuality of both the roles has been preserved and definite areas have been visualised and thus not only the necessary leadership and directions are provided but the accountability is also preserved.

With the introduction of holding company concept through SAIL, the technical areas which could be better supervised and decided at levels different from Government have been delegated to SAIL and the autonomy allowed to the holding company has provided a measure of viability which was not available in the past. The integration of the office of Secretary to the Government with Chairman of SAIL, it has been claimed, has helped to ensure that the Government is not just another link in the chain of decision making. This has allowed the Ministry to concentrate on issues of policy nature, enforcement of norms and laws, national objectives and targets in relation to performance and growth in sales sector without getting enmeshed in day-to-day problems.

The Committee, in this connection, would like to invite the attention of SAIL/Government to paragraph 8.12 of their 70th Report (4th Lok Sabha) (1969-70) on India Tourism Development Corporation where they have observed as follows:—

“As pointed out above, the Estimates Committee and the Committee on Public Undertakings had unmistakably commented upon the inadvisability of inclusion of a Secretary or Additional Secretary in the management of public

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sector undertakings. In spite of the above recommendation, it is noticed with surprise that Additional Secretary of the Government has been appointed as part-time Chairman of India Tourism Development Corporation as recently as in 1970. The Committee have taken strong exception to the deliberate flouting of the recommendations of Parliamentary Committee and of Administrative Reforms Commission and would recommend that the recent appointment of Chairman of Board of Directors of I.T.D.C. should be immediately reconsidered in the light of the recommendations earlier made and already accepted by the Government." This recommendation has been accepted by Government.

The Committee would also like to invite the attention of SAIL/Government to the recommendation made in paragraph 5.23 of their 68th Report (4th Lok Sabha) (1969-70) on Bokaro Steel Ltd. where they have observed "The Committee regret to note that the Secretary of the Ministry of Iron and Steel was appointed as Chairman of Bokaro Ltd. on 4th February, 1964 contrary to decision of Government taken as early as November, 1961 that no Secretary of the Ministry/Department shall be a member of any board and in disregard to the recommendation of the Estimates Committee and accepted by Government." In their 14th Report (5th Lok Sabha) (1971-72) on Action Taken, the Committee have reiterated their recommendation and desired that the recommendation of the Administrative Reforms Commission that "no officer of Ministry should be made Chairman of a public undertaking nor the Secretary of the Ministry be included in its board of management" which was accepted

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by Government in respect of industrial undertakings should be strictly followed.

In spite of the observations of the Administrative Reforms Commission and the Committee on Public Undertakings in their earlier reports, the Committee are surprised to find that the post of the Chairman of the undertaking has been combined with that of Secretary to Government. It has been stated that the combination of the post of Chairman of the Undertaking with that of the Secretary to Government has not acted as a constraint in the discharge of the duties of Secretary.

The Committee observe that, inspite of Government having accepted the recommendations of the Committee on Public Undertakings in paragraph 8.12 of their 70th Report (1969-70) and their recommendation in para 5.23 of their 68th Report (1969-70) which had been reiterated by the Committee, the Secretary of the Ministry has also been appointed as the Chairman of SAIL contrary to these recommendations. However, the Secretary has tried to explain the position during the evidence by stating that "it is not a question whether Secretary should always be the Chairman or *vice versa*. The important thing is the objective visualised in setting up the Steel Authority and really giving effect to this objective." In view of this statement and the improvements noticed after formation of SAIL as a holding company which is a novel experiment, the Committee would like to watch the functioning of this arrangement for some more time before they could give their observations in this regard.

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10.64

The Committee were informed that the organisational set up evolved in the last few years of working of SAIL has been found to be reasonably adequate. The Committee, however, agree with the Secretary, Department of Steel, that

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the organisational structure should be such as to subserve the practical objectives for which the SAIL has been created, and caution SAIL/Government that the organisation should not proliferate into another parallel secretariat or Ministry and thus add to the administrative overheads. This aspect needs to be most carefully watched and any tendency to inflate levels of supervisions and overheads firmly checked right from the beginning.

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10.65

The Committee note that at the time of formation of the SAIL it was clearly visualised that Hindustan Steel Ltd. would be reorganised and the reorganisation of HSL leading to each plant being constituted as a separate company is intended to secure greater responsibility and effective application of authority to plant managements. It has also been stated that the proposals are under consideration to establish separate companies for various steel plants which are under the charge of HSL. The Committee are informed that the object of giving more powers to operational management is to ensure optimum production, sound industrial relations, better distribution and consequently improve over-all availability of pig iron, steel and optimum profits. The Committee regret to note that though it is now more than 2 years since SAIL has been in existence, the reorganisation of HSL has not been finalised and the relationship continues to be amorphous. The representative of SAIL has admitted during evidence that "I do submit that there has been some delay. I think the decision in the SAIL has been taken and we are now carrying it out and I hope it will be implemented early." In the opinion of the Committee, apart from the fact that there is overlapping and avoidable duplication of overheads and absence of

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a clear line of command, such a situation cannot make for smooth functioning. The Committee would like Government to expedite decision regarding reorganisation of HSL.

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10.66

The Committee note that already SAIL has been taking steps to strengthen the boards of the subsidiaries with a view to building up a fairly long-term functional team to manage the entire affairs of the company in its various facets—production, industrial finance, etc. The Committee would like to watch the developments in this regard.

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10.67

The Committee note that one of the important functions of SAIL is to ensure career development, succession planning and the organisation and development of steel cadre. For this purpose, SAIL and its subsidiaries have been exempted from the present empanelment procedures and it has already taken the most important procedural step of appointing a full time Director of Personnel in the organisation. It has also been stated that appropriate policies are being worked out to develop the steel cadre so as to ensure that selection/appointments in the various posts are made having regard to the merit, objectivity and the interest of the company concerned. The Committee were informed that it has been decided to defer the formulation of rules, regulations, grades, methodology of promotion, transfers, etc. and setting up of the cadre for a short time. The Chairman, SAIL and Secretary, Department of Steel has, however, admitted during evidence "we are not satisfied completely with the steps taken in that direction. These things relate to action taken to try to sharpen the training, recruitment, placement and selection of cadre. I hope we will soon reach a stage when we would think that the time was mature enough to give

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a formalistic shape to it." The Committee recommend that the necessary procedural formalities and the rules and regulations in this regard and the formation of steel cadre and the relationship of HSL and SAIL should be completed at an early date so that the staff and officers working in SAIL and its subsidiary units are clear about their service rules and regulations and their position vis-a-vis the Steel cadre. The Committee would like to be informed of the action taken in this regard.

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11.35

The Committee note that for the first time the Hindustan Steel Ltd. showed a profit of Rs. 4.71 crores in 1973-74 as against losses to the tune of Rs. 44.85 crores in 1971-72 and Rs. 27.80 crores during 1972-73 respectively. The Committee also find that during 1974-75 the Hindustan Steel Limited made a profit of Rs. 48.24 crores compared to the profit of Rs. 4.71 crores during 1973-74. The Committee also note that the price increase allowed during 1973-74 brought an extra income of 47 crores against which the cost of escalations in running the plant to the tune of about Rs. 39 crores was set off, resulting in a net gain of Rs. 8 crores. The Committee were further informed that the profit during 1973-74 would have been more by Rs. 38.72 crores but for the loss consequent on the decrease in production to the extent of 5 lakhs tonnes of saleable steel due mainly to power, raw material, transport and industrial relation problems. In respect of Bokaro Steel, the Committee note that the loss during 1974-75 has been slightly higher than in 1973-74. The Committee are informed that the increase in profit during 1974-75 has been the result of higher production of steel, pig iron and fertilizers, decision to maximise production of saleable steel instead of the earlier, emphasis on

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ingot steel, more efficient utilisation of raw materials and reduction in overhead cost resulting from better distribution of products, important cost reduction achieved in the per tonne cost of demurrages, wharfages loss in transit, handling cost. It has been stated that since the formation of SAIL, it has been devoting special attention towards stepping up of production, from steel plants and subsidiaries, bringing about improvement in inputs through close and effective coordination and liaison with concerned agencies, fixation of realistic targets, continuous coordination with Railways in the matter of movement of principal inputs, providing of balancing facilities in washeries, coordination with the Ministry of Energy and the State Governments for supply of power etc. The Committee are also informed that the over-all profits including the subsidiaries during 1974-75 amounted to Rs. 38.27 crores as against a loss of Rs. 2.75 crores during 1973-74. In regard to the constraints about the inputs, the Committee have already given their comments in the relevant chapters of the report. The Committee hope that efforts would continue to be made by SAIL and Government to obtain better utilisation of installed capacity with particular reference to removing bottlenecks coming in the way of greater production by providing balancing equipment, ensuring regular schedule of maintenance, assuring supply of inputs etc., achieve efficiency and economy in cost of production of steel with particular reference to OMS and quantity and value of inputs, minimising defectives and rejects, reduce distribution costs and thus improve the performance and profitability of SAIL so that larger resources may be generated for further development and expansion.

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The Committee note that the ratio of operating cost to net sales was 98 per cent in the case

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of Hindustan Steel Limited in 1974 as compared to 93 per cent in Japan, 95 per cent in Germany and 97 per cent in Britain in 1971; the ratio of net profit (before tax) to sales was 1 per cent in HSL, 2 per cent in Japan, 2 per cent in Germany and 5 per cent in Britain; and the return on equity (before interest and tax) was 4 per cent in HSL, 7 per cent in Japan, 7 per cent in Germany and 4 per cent in Britain. The Committee would like the SAIL to make concerted efforts to reduce the operating cost in its steel plants by improving its productivity, performance and better utilisation of raw materials so that it will be possible for SAIL to make steel available at most competitive prices and thus provide fillip to engineering industries and also earn the much needed foreign exchange through exports.

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