

**COMMITTEE ON PUBLIC
UNDERTAKINGS
(1982-83)**

(SEVENTH LOK SABHA)

SEVENTY-FIRST REPORT

ON

**BHARAT ALUMINIUM COMPANY LTD.
(Ministry of Steel & Mines)
(Department of Mines)**

Presented to Lok Sabha

and

Laid in Rajya Sabha on 27.4.1983



**LOK SABHA SECRETARIAT
NEW DELHI.**

April, 1983/Valsakha, 1905 (S)

Price : Rs. 3.30

CORRIGENDA TO 71ST REPORT OF THE
COMMITTEE ON PUBLIC UNDERTAKINGS
(SEVENTH LOK SABHA)

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(1982-83)**

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**STUDY GROUP-II ON BHARAT ALUMINIUM CO. LTD.,
CENTRAL COTTAGE INDUSTRIES CORPORATION OF
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CORPORATION OF INDIA LTD., STATE TRADING
CORPORATION OF INDIA LTD. AND INDIAN
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4. **Shri Ramnath Dubey**
5. **Shri Kudanthai Ramalingam**

CHAPTER I

OBJECTIVES AND OBLIGATIONS

A. Historical background

1.1 Bharat Aluminium Co. Ltd. was incorporated in November, 1965 for construction, operation and management of Alumina/Aluminium Plants in the Public Sector and undertaking allied activities. The company was set up with the immediate object of setting up two integrated aluminium Projects in the public sector one at Koyna and another at Korba - and with the long-term objective of the public sector assuming a dominant role in the aluminium industry. The Koyna project could not be taken up for implementation on account of financial constraints. The Company is thus operating the sole public sector aluminium plant at Korba.

B. Objectives and Corporate Plan

1.2 The Government had in November, 1970 accepted the recommendation of the Administrative Reforms Commission that they should, in consultation with the public undertakings, make a comprehensive and clear statement on the objectives and obligations of public undertakings laying down the broad principles for determining their precise financial and economic obligations in matters such as creation of various reserves, the extent to which the enterprises should undertake the responsibilities of self-financing, the anticipated returns on the capital employed etc. The committee desired to know whether the objectives and obligations of Bharat Aluminium Co. Ltd. have been formulated. The Company in a note informed the Committee that the objectives and obligations as prepared by a sub-Committee of the Board were considered and approved by the Board in July 1981. After review of these objectives, Government advised that these should be suitably modified. In reply to another question, the Committee were informed that BALCO also did not have a consolidated document incorporating its corporate/perspective plan.

1.3 On being enquired as to when were the objectives as approved by the Board submitted to the Ministry and when did the Ministry ask the company to modify them, the Chairman-Managing Director, BALCO stated in evidence :

"We sent the objectives to the Ministry on 31.8.1981.....In July, 1982 the Ministry asked us to look into those objectives again and see whether we could refine them further."

1.4 Asked about the action taken thereafter by the Company, the witness informed the Committee that in August, 1982 the Company approached the Institute of Public Enterprises, Hyderabad, an expert organisation engaged in drawing up corporate plans and objectives for several public sector companies, and asked them to draw up a corporate plan for Bharat Aluminium Co. Ltd. so that its objectives could be clearly defined.

1.5 Asked to state the reasons for delay in formulation of objectives and obligations of the company, the witness stated :

“We waited for commissioning of the alumina plant and the smelter till 1978-79”

1.6 The Chairman-Managing Director, however, agreed with the Committee that it was not necessary to wait till the plant started production for drawing up the objectives and stated :

“It may not have been a hundred per cent satisfactory but we could have started with framing of the objectives which could have been refined later.”

1.7 When the fact of a corporate plan and the objectives having not been finalised by Bharat Aluminium Co. was pointed out to the Secretary, Department of Mines, he stated in evidence :—

“The company was.....addressed along with various other companies under the Ministry in June, 1979 to spell out their respective objectives. To help them to assess it, we have also circulated to them certain copies of the objectives drawn up by certain other undertakings.....BALCO have informed us that they have entrusted the preparation of the corporate plan to the Institute of Public Enterprises and in the course of preparation of this corporate plan, the macro and micro objectives of the company will also be defined.”

1.8 Asked whether the Ministry reminded the company to prepare its objectives and obligations at any time between November, 1970, when the recommendation of the Administrative Reforms Commission was accepted and 1979, the witness stated :

“I have not been able to find any evidence of correspondence in the Ministry earlier than June, 1979.”

1.9 When pointed out that their had been inordinate delay in finalising the objectives of the company, the witness stated :

"I agree with you that the necessity of spelling out the micro objectives becomes all the more necessary when the company is about to go into production. It is, no doubt, true that the objectives of the company are there and what it can do are spelt out in a very general way in the Articles of Association and the Memorandum of Association. But those are not adequate. Well, this is one instance where there has been a considerable delay...this is an omission and I cannot offer more explanation than that."

1.10 Asked to state the period that would be covered by the corporate plan, being prepared by the Institute of Public Enterprises, the Chairman-Managing Director, BALCO informed the Committee :

"We have asked them for 5 years micro plan and also include roll-over plan for 10 years and even upto 20 years. It has a short term as well as a long term objective. It will be a comprehensive plan."

1.11 The Committee desired to know as to when the Institute would give its report. The CMD stated in evidence :

".....The programme is that they will submit to us this draft report in about 6 months time. In February, 1983 this draft report is likely to come to us. This involves lot of work. I personally told them not to hurry up with this because we must discuss with the private aluminium producers, the Planning Commission, our own Ministry, National Aluminium etc., because unless all these organisations are consulted about the corporate plan, we cannot have a very meaningful and objective corporate plan. My attempt is to get a plan which has not to be revised much. It is better you take a little more time and try to cover thoroughly the various aspects before we draw up a plan. It should be meaningful."

The witness assured the Committee that by December, 1983 everything would be finally finalised.

1.12 In this connection the Secretary, Department of Mines stated that the report of the Institute soon after its receipt in February, 1983 would be placed before the Board of Directors of BALCO. After finalisation of the micro objectives by the Board, it would be sent to the Ministry for examination and approval. He added :

"The process of working out the micro objectives will be completed within a maximum period of six months. But I will try to compensate it and make it within four months. That is the minimum period that will be required."

1.13 Bharat Aluminium Co. Ltd. was set up in 1965. Its objectives and obligations have not yet been finalised by the administrative Ministry. The Company also does not have a corporate plan. The Committee have been informed that the task of drawing up the corporate plan has now been entrusted to an expert organisation which was to submit the report in February 1983, after which the micro objectives of the Company would also be finalised. The Committee wonder how without settling first micro objectives of the Company, its corporate plan could be prepared. Anyhow, the Committee hope that as assured by the Secretary of the Ministry during evidence the micro objectives of the Company would be finalised soon. The Committee need hardly stress that to make a periodical meaningful evaluation of the performance of the Company it is necessary that it should have well defined and clearly stated financial and economic objectives.

1.14 The Committee would also suggest that targets as desired by them in Para 5 of their 49th Report should be fixed both annually and for the plan period, in consultation with the Planning Commission. These targets and achievements should also be clearly brought out in the Annual Report of the undertaking with an explanation for the shortfalls, if any.

CHAPTER II

PROJECT PLANNING AND EXECUTION

A. Development of Mines

2.1 The proposal to set up an alumina plant and smelter at Korba was based on the bauxite deposits in Phutkapahar and Amarkantak mines in Madhya Pradesh. According to the Annual Report of Ministry of Steel & Mines (Department of Mines) for the year 1981-82, Company's experience during the actual mining operations indicated that recoverable reserves from these mines were somewhat lower than the original assessed figure. With the prospect of depleting reserves, the Company investigated alternative sources of bauxite for the period beyond 1984-85 and bauxite of Gandhamardan deposit in Orissa was found suitable for alumina production at Korba.

2.2 The Committee desired to know by whom the original assessment was made and how the present reserves compared with the original estimates. The Company stated in a note submitted to the Committee that the original assessment of Phutkapahar and Amarkantak deposits was carried out by the Geological Survey of India during 1961-63. The total reserves estimated by GSI were 11.15 million tonnes comprising 8.47 million tonnes in Amarkantak area and 2.68 million tonnes in Phutkapahar area. While taking the investment decision in 1967 it was noted that these reserves would be sufficient for about 18 years (including mining losses). Subsequent to the investment decision, G.S.I. reported that additional reserves of 11.63 m. tonnes would be available in Amarkantak area. The total reserves of 22.78 m. tonnes thus estimated by G.S.I. were considered to be sufficient for more than 30 years. Later, however, when the Company carried out further exploration for the purpose of mine planning, the useable reserves were found to be only 4.38m. tonnes.

2.3 Asked to state the reasons for the original estimates going wrong, the Company stated *inter alia* in a note that this was due to drawing of samples by GSI by conventional wet diamond core drilling method which was the normal conventional exploration technique applied to shallow orebodies at the relevant time. With the use of this technique, in areas which had pockets of soil and clay, there was a tendency for overestimation of alumina and under-estimation of silica content. In view of this, the quantity of bauxite, which could be mined within the prescribed tolerance limit of silica, was less than that estimated by G.S.I. The technique of wet drilling for reserve assessment was stated to have been discontinued.

2.4 In this connection, the Secretary, Department of Mines while accepting that the methods of exploration then employed were not adequate compared to what was being done now, stated in evidence as follows :

“Firstly, I would like to point out that our experience in the exploration of bauxite was limited. Bauxite is an ore which behaves in a rather unpredictable manner. . . Our surmise is that the grid pattern followed by the GSI overlooked the fact that the deposits could, in fact, be rather pockety. There was no continuous lode of material nor there was a deposit of blanket type as is the case with east-coast bauxite deposits.

Secondly, when the BALCO started doing mining, the detailed mining plan had to be done and, when BALCO started doing detailed exploration, it came across results which did not tally with the forecast made by the GSI.

Thirdly, the principal deposits are in Amarkantak over a series of plateaus. The GSI took into account 13 or more plateaus present in the area. But the fact of the matter is not all the reserves were exploitable. The terrain is difficult. The transportation becomes a problem. A distinction has to be drawn between the geological reserves and mineable reserves. When the Mining Engineers went into the field to examine the areas which were earmarked for exploitation, they came to the conclusion that certain plateaus were unaccessible and, therefore, only some of them could be taken up for exploitation. So, the figure of 23 million tonnes came down to 14 million tonnes.

Fourthly, when we talk about the estimates of GSI going wrong, we must also keep in mind the grades of ore which were defined in the reserves. The figure of 23 million tonnes assessed by the GSI refers to 45 per cent Al_2O_3 and silica range of 3.75 to 6.43 per cent. Unfortunately, between the reserves estimation and the design parameters of the plant, there was a certain discordance. The plant could not tolerate more than 4.5 per cent silica. The design parameters of the plant were 47 per cent Al_2O_3 and 4.5 per cent silica. . . . But in actual practice what happened was that in 1974-75 and 1975-76, the silica was slightly more than the maximum permissible under the design parameters. It became 4.87 and 4.63 per cent. Therefore the company decided to go in for selective mining and go in for ores which had lower silica. They decided to mine ore which contained 50.5 per cent alumina and 3.3 per cent silica. This automatically means that a considerable part of the ore body was excluded for use in the plant. That is how the company came to a much lower estimate of 4.38 million tonnes or so.”

2.5 Asked to state the rationale behind the company mining ore containing 50.5 per cent alumina, the witness stated :

"I think that the company was not very correct in going in for average grade of as high as 50.5% alumina. It could easily have gone for mining of 45% and when this came to our notice, we pointed out to the company and the company is now using bauxite of 48% alumina content or so."

2.6 The Committee enquired the reasons for depending solely on the data provided by GSI about geological reserves of bauxite and not having detailed exploration carried out to assess correctly the mineable reserves before taking investment decision on the project. The Secretary, Department of Mines stated in evidence that the investment decision, in principle had been taken even before the setting up of BALCO and Government relied upon the assessment made by GSI as this was the only agency engaged in exploration work. The witness added that at the time the bauxite reserves were over-estimated, the detailed as well as the regional, explorations were done by the GSI. After setting up of Mineral Exploration Corporation in 1972, the functions of the GSI were restricted to regional exploration. If in the course of regional exploration, the GSI finds some promising deposits, Government gets the exploration intensified. There was no other agency even now in the country other than these two agencies which could do detailed exploration.

2.7 Asked to state whether there was any mechanism now available with the Government to verify the data supplied by the GSI, the Secretary Department of Mines stated :

" We have learnt from experience not only here but in Khetri it was felt that a specialised body should be set up and that is why the Mineral Exploration Corporation was set up. When a Ore Body has to be explored, a detailed scheme is prepared and the MEC then submits it to the Board and gets it approved by the Board, as also by the Government. In the Government itself, because of these problems that we face in underground mining, we have to surmise the behaviour of a particular body which will essentially affect the economics of the project. We have set up a task force on ore resources which meets under my Chairmanship consisting of a number of experts in the field of geology and exploration and also mining. As and when a particular deposit for a prospective project has to be taken up for exploration, the scheme of exploration has to be approved by the Committee of Experts. The progress of the exploration and the results as assessed, are from time to time, reviewed by the Committee and fresh directions given to the exploration agency. Not

only that. Today we depend not only on merely drilling holes but the technique of drilling has changed. . . . Now we do only dry drilling. This is supplemented by trenching, pitting, and deep pits are done and exploratory tunnels are dug and exploratory mining is done. In addition to that, our exploration agencies have also got expertise in different geological techniques.

2.8 The Committee desired to know how the economics of the project changed on account of gross incorrect assessment of the deposits. The Secretary, Department of Mines stated :

"First of all, the deposits are of a pockety nature and therefore, one important factor which determines the costs of mining is not only the nature of the deposit but also the ratio of overburden to the ore. In the DPR the ratio of ore to overburden was estimated as 1 : 1.2, that is, for getting one tonne of ore, you have to remove 1.2 tonnes of overburden. But in actual mining, the overburden was four times more. So, the ratio of ore to overburden became 1 : 4. That itself increased the production cost per tonne. The second point is, it was not a massive deposit. The ore was mixed up with waste rock and the ore had, therefore to be hand-sorted' with the result that hundreds of people had to be employed on hand-sorting whatever was blasted and removed. If it had been a massive deposit, hand-sorting would not have been necessary. The third point is.....the aluminium plant has never worked at anything like full capacity ; it has been running at 30 to 35 per cent capacity. The mine was equipped to produce all the alumina required for full capacity, but in actual practice because the plant has been working at lower capacities, the incidence of fixed costs has been much more than what was predicted. Then, when we compare 1967 and now, there have been increases in the costs of various input materials. Finally, because of the fact that it was thought that a large amount of bauxite would have to be excavated for feeding the plant at full capacity; certain kind of machinery were purchased but the fact of the matter is that that machinery has been grossly under-utilised. All these have led to increases in costs. In the DPR the delivered cost of bauxite at the plant was estimated at Rs. 36. In 1981-82 it was Rs. 182. One must not forget the increase in the input cost of fuel and all other things between 1967 and 1982."

Development of Gandhamardan Mines

2.9 In view of the fact that estimated reserves of the existing captive bauxite mines at Amarkantak and Phutkapahar were expected to meet the requirements of the Korba Alumina Plant for the next 3-4 years only, BALCO was stated to be developing the Gandhamardan bauxite deposit for the Korba Aluminium Complex. Asked to furnish details of the project,

the Company informed the Committee in a note that the total bauxite reserves in Gandhamardan in Orissa were estimated to exceed 200 million tonnes. Bauxite occurred in more or less uniform capping with an average thickness of 15 m and was, therefore, suitable for mechanised mining. Logistically, the foot-hill of the deposit was only 30km away from the nearest rail-head.

2.10 BALCO applied for grant of mining lease for the Gandhamardan Deposit in 1976 and was granted mining lease by Orissa Government over an area consisting of bauxite reserves of 60 million tonnes. Out of this, one particular block explored in greater detail for the preparation of feasibility report has mineable reserves of 26 million tonnes sufficient to cater to the bauxite requirements of the Korba Alumina Plant for a period of more than 40 years at the present rated capacity.

2.11 The project (involving 6 lakh tonnes of bauxite per year) sanctioned by Government for implementation on 26.7.1982 at a cost of Rs. 31.2 crores was scheduled to be commissioned within a period of 33 months, i.e. by April, 1985. Asked about the production plan at the mines, the Chairman Managing Director, BALCO, stated in evidence that as per experience, the company would be using 3 lakh tonnes of bauxite per year as against 5 lakh tonnes expected to be used earlier because of the plant not being run at full capacity on account of power constraint. He also stated that a capacity of 3 lakh tonnes was expected to be achieved immediately after the Gandhamardan mines were commissioned in April, 1985. On being enquired by the Committee as to when the full capacity of 6 lakh tonnes would be achieved, the witness stated :

"It will be a year later. It may be 75 per cent in the next year and 90 per cent or more in the third year. It can be earlier also. But I am giving a little margin on practical considerations."

2.12 From a note furnished to the Committee by the company, it was noticed that National Mineral Development Corporation who were engaged to report on short/long term mining scheme for supply of bauxite to the Korba Alumina Plant in their report submitted in February, 1979 concluded that the present reserves would be completely exhausted by 1984-85 and suggested that the construction of the mine, plant and infrastructural facilities for the new mine should be completed in 1982-83 so as to start production in 1983-84.

2.13 Asked to state the reasons for the delay in sanctioning the Gandhamardan Project, the Secretary, Department of Mines stated in evidence that there had not been an unusual delay in sanctioning the project. NMDC, as an expert in mining were requested to suggest what

should be done to sustain the plant of BALCO. They gave an opinion that a new deposit would have to be opened. This conclusion was accepted. But in order not to commit the mistakes of Amarkantak, MEC was entrusted to do the detailed exploration. The witness also stated that the investment decision could not be taken without a feasibility report. In January, 1980 MECON were entrusted with the preparation of feasibility report for the deposits. They submitted the report in February, 1981 which was sent by BALCO to the Government in April, 1981. After the various processes of examination of the report by appraisal agencies, a note was sent to the Public Investment Board in March, 1982. After approval by PIB, Government sanctioned the project in July, 1982. In regard to depletion of present reserves, the witness stated that the company still had enough reserves for another 5 years since the plant was not being run at full capacity.

2.14 Asked to state the cost of bauxite from the Gandhamardan Mines, the Company stated in a note that the cost of the bauxite as delivered at Korba was estimated at Rs. 160 per tonnes, based on mid-1981 price level. During the course of evidence, the CMD informed the Committee that this ore apart from being cheaper had good digesting characteristic. On being enquired why the plant was not set up near Gandhamardan the witness pleaded that the existence of Gandhamardan mines was not known, when the plant was set up at Korba.

2.15 On being enquired about the suitability of Gandhamardan bauxite for the Alumina Plant at Korba, a representative of the company informed the Committee as follows :

“We collected samples and we did ourselves some testing and we even sent some samples to the hungarians. They found that this bauxite can be used in our plant except that here also the settling is slightly inferior. So, we will have to improve upon instruments and controls and add some additional equipment to use Gandhamardan bauxite.”

2.16 Asked about the cost of such additional equipment, the witness informed the Committee that the additional cost was not likely to exceed Rs. One crore.

Production at Mines

2.17 The rated capacity, annual targets and actual production of Amarkantak and Phutkapahar mines during the last three years was as follows :
(Figures in tonnes)

Annual output	1979-80		1980-81		1981-82	
	Amarkantak	Phutkapahar	Amarkantak	Phutkapahar	Amarkantak	Phutkapahar
Rated	420,000	130,000	420,000	130,000	420,000	130,000
Targeted	400,000	100,000	320,000	80,000	320,000	80,000
Actual	288,242	79,918	311,766	72,877	190,419	67,662

2.18 During these years, the company also purchased 3,762 tonnes, 26,011 tonnes and 17,649 tonnes of bauxite from the U. P. State Mineral Development Corporation Ltd.

2.19 On being enquired as to the reasons for actual production of bauxite being lower than even the targets, the CMD, BALCO stated in evidence that the targets had been fixed high because of over-estimation of availability of power. Since the company did not get adequate power, it had to curtail bauxite production due to lower requirement of alumina. Asked why the company then purchased bauxite from the U.P. State Mineral Development Corporation, the witness stated :

“The company was also anxious to conserve its bauxite reserves.”

2.20 The Korba Aluminium Project comprises Captive Bauxite Mines in Phutkapahar and Amarkantak areas, Alumina Plant, Smelter and Fabrication facilities. The Committee are unhappy to note that there was great over-estimation of bauxite deposits of the captive mines. The Geological Survey of India (GSI) had originally (in 1961-63) estimated 11.15 million tonnes bauxite reserves in these areas. After 1967 when Government had taken an investment decision GSI again reported that additional reserves of 11.63 million tonnes would be available in Amarkantak. Thus GSI had estimated total reserves of 22.78 million tonnes bauxite from the two areas with silica content ranging from 3.75 to 6.43 per cent. These reserves were considered sufficient for more than 30 years. Afterwards when BALCO carried out the exploration it found that the useable reserves were 4.38 million tonnes i. e. only 19% of that assessed by GSI. The incorrect assessment in regard to the nature of deposits increased the cost of raising ore. The Committee regret that Government decided to make huge investment in the Alumina Plant without having a reliable data about the quantity and quality of useable reserves of bauxite from Phutkapahar and Amarkantak areas.

2.21 The Committee also find that the Company had been doing selective mining of ore in Phutkapahar and Amarkantak areas having lower silica content than that which could be used within the designed parameters of the plant. The Committee are afraid that such a practice will not only reduce the useable reserves of bauxite but would also result in wastage of national wealth.

They expect the Ministry/Company to ensure that selective mining does not continue and there is production of bauxite with regard to alumina and silica content upto the acceptable limits of tolerance of the plant.

2.22 In view of the fact that the present ore reserves from the captive mines are expected to last only for 3-4 years, the Company is now developing Gandhamardan bauxite deposit in Orissa to meet its long term need of bauxite. Bauxite reserves in this area are estimated to be about 200 million tonnes. However the area being explored by BALCO is estimated to have mineable reserves of 26 million tonnes sufficient to cater to the bauxite requirement of the Korba Aluminium Plant for a period of more than 40 years. The estimated expenditure on the development of Gandhamardan mines is Rs. 31.2 crores, as sanctioned by Government on 26 July, 1982. The Committee note that there has been delay in the development of Gandhamardan Mines. The NMDC who was engaged to report on short and long term mining schemes for supply of bauxite to the Korba Aluminium Plant had in its report submitted in February, 1979, suggested that the construction of Gandhamardan mine should be completed in 1982-83 and production started in 1983-84. However, after 11 months of NMDC's Report, Government entrusted (in January, 1980) detailed exploration to MECON, who gave their report in February, 1981. It was only on 26 July, 1982 (after 17 months) that Government could take an investment decision. Actual production in Gandhamardan is likely to start after April, 1985. In the meantime the Committee find that the Company has been purchasing bauxite from outside sources to conserve its reserves. The Committee regret that Ministry had taken more than 3 years to sanction implementation of the project. They, however, hope that the Ministry/Company will ensure that bauxite from the Gandhamardan mine becomes available in time as per the requirements of the Aluminium Plant to avoid any shortfall in Production.

B. Construction & Commissioning

2.23 In 1965, the Cabinet Committee decided to go in for a smelter of 100,000 tpa and corresponding alumina plant. Investment sanction for alumina plant was issued on 7.10.1967. The sanction for the smelter was issued in September, 1971.

2.24 The Company entered into a technical consultancy agreement with M/s. Chemokomplex of Hungary in December, 1967 for providing technical services etc. for the establishment of 200,000 tpa alumina plant at Korba at a cost of Rs. 1.56 crores. A technical agreement with M/s Tsvet metpromexport of USSR was made in June, 1971 for providing detailed engineering and rendering technical assistance for construction of an aluminium plant at Korba with a rated capacity of 100,000 tpa as also 50,000 tpa of rolled and extruded items. The jee payable to the Russian

Consultants for these services was 1.64 million Roubles-0.97 million roubles for detailed engineering services and 0.67 million roubles for deputation of Soviet experts etc. The amount payable for Soviet Experts subsequently went up to 2.04 million roubles. This was stated to be chiefly due to the deputation of additional foreign experts found necessary as a result of review made in January/February 1973 as also a further review made in 1980. Further, the rates of payment to Soviet experts had been revised by Government from time to time.

2.25 The original schedule, revised schedule and actual dates of completion/commissioning of each unit of the Korba complex, was as follows :—

Sl. No.	Units as per Detailed Project Report	Original Schedule	Revised Schedule	Final position Completion/Commissioning
1.	Alumina Plant	July, 1972	1st Qr. 1973	April 1973 (commissioned)
2.	Smelter-Phase I (25,000 T)	Aug., 1974	March 1975	March 1975 (Mechanical Completion) May 1975 (commissioned)
3.	Smelter-Phase II (25,000 T)	Dec., 1974	June 1976	June 1976 (Mechanical Completion) Sept. 1977 (Partial Commissioning)
4.	Smelter-Phase III (25,000 T)	April, 1975	June 1977	Dec. 1977 (Mechanical Completion)
5.	Smelter Phase IV (25,000 T)	August, 1975	Dec., 1977	Sept., 1978 (Mechanical completion)
6.	Properzi-I (10,000 T)	Jan, 1975	Feb., 1976	Feb., 1976 (Commissioned)
7.	Extrusion Presses	Sept. 1975	Dec., 1978	800-T. July '79 (Mechanical completion) Dec. '80 (Commissioned) 2500-T-Sept. 80 (Mechanical completion) 3150 T-Aug. 82 (mechanical completion)
8.	Sheet Rolling Shop (40,000 T)	March 1976	June, 1978	Hot Rolling Mill-Mechanical completion in August 1981. Cold Rolling Mill Mechanical completion in January 1982.
9.	Properzi-II (25,000 T)	Nov., 1979	Dec., 1980	March, 1981 (commissioned)

2.26 The Committee desired to know the reasons for a gap of 2 years between the commissioning of alumina plant and smelter phase-I even accor-

ding to the original schedule. The Chairman-Managing Director of the Company stated during evidence that this was due to delay in taking investment decision for the smelter which resulted in the scheduled time of commissioning of alumina plant being 2 years ahead of the smelter in spite of the fact that the usual time of completion of alumina plant was about 1½ years more than that of the smelter.

2.27 On being enquired as to why there was delay of 6 years in taking investment decision on the smelter after it was cleared by the Cabinet Committee, the Secretary, Department of Mines stated in evidence as follows :—

“The first thing that happened was to separate the smelter and the alumina plant. Normally this is an integrated complex and if synchronisation is to be completely assured, the investment decisions on both have to be taken at the same time. But it so happened in the circumstances of the case that the investment decisions were separated by a certain period.....The alumina plant-it was decided would be set up with the collaboration of the Hungarians and the smelter would be set up with the collaboration of the Russians. The time schedule is like this. The investment sanction for the alumina plant was issued in October 1967. Prior to that we had already posed the smelter project to the Russians for assistance because the Hungarians did not really have much experience in smelting. In April, 1965 the Korba smelter project was posed to the Russians for help. In December 1966 a 300 million rouble credit agreement was concluded with the USSR for the smelter and fabrication facilities. In October 1967 the USSR signed a draft contract for the preparation of the detailed project report. Now at this point of time something untoward happened.....Some indigenous industry.....set up a claim that they had the necessary knowhow and necessary technology. Everybody knew and that is true even today that we do not have the technology. Madras Aluminium had to depend on Italian technology. Hindustan Aluminium had to depend on Kaiser-American Technology. Indian Aluminium was a subsidiary of the ALCAN of Canada and therefore depended on Canadian technology. So the Ministry then decided to examine the kind of technology available in the country and whether it could dispense with foreign collaboration. After a very prolonged review of the technological situation, it came to the conclusion that foreign collaboration could not be dispensed with. This process took about 13 months.....In March 1968 guidelines were given to the BALCO for the preparation of DPR. Then an agreement was concluded in 1968 with the USSR for preparation of the DPR. In August 1970 the DPR was received—that is that it took 2 years. Then of course various other processes were set in motion. BALCO examined it and sent it to the Government

then there was reference to Finance and ultimately it was sanctioned in September 1971.....Although this was done 4 years after the sanction of the alumina plant yet in actual completion there has been a gap of 2 years only. I can say one thing here that some delay could have been tolerated because the smelter always takes less time to construct than an alumina plant.....In this case a maximum of one year delay could have been tolerated."

2.28 The Committee enquired whether, after noticing that the alumina plant would be ready much ahead of the smelter, any thought was given either to expedite the construction of smelter or to find out an outlet for the alumina to be produced by the plant till the commissioning of the smelter. The Secretary, Department of Mines replied that while issuing sanction in 1971, the Ministry did write to the Company that "BALCO should take firm steps well in advance for the disposal of the alumina in the interim period as the alumina plant may be in production about 2 years ahead of the commissioning of the smelter." However, the witness conceded that :—

"Tie up with long term contracts was a difficult process; secondly there was no indigenous demand for alumina; all those in the private sector, with their smelter, bauxite and alumina plant were fully integrated and matched."

Commissioning of Alumina Plant

2.29 According to the agreement entered into with the Hungarian firm, the alumina plant was supposed to be commissioned by July, 1972. However, only one stream of the plant was commissioned in April 1973.

2.30 The second stream of the plant was not tried out till mid-1976. The performance guarantee was also proved by the consultants only on the first stream. Asked to state the reasons for not getting the performance guarantee proved on the second stream also, a representative of the Company stated in evidence that the digester units installed for achieving the total capacity of 2 lakh tonnes were provided in 2 streams of one lakh tonne capacity each. In the normal procedure, the first stream is started and after its running for 6 months, when the operation stabilises, the second stream is started. In this case, the first stream was commissioned in April, 1973. By August/September 1973 when the second stream was to be commissioned, it was found that outlets for alumina were not available. Neither the smelter had been commissioned nor was there any export order in hand. From April 1973, till April 1974, if second stream would have been commissioned as per earlier plan, the production of alumina would have been about 1 lakh 7 thousand tonnes of a value of Rs. 11 crores. Such large stock could not be allowed to be stored outside and contaminated. The

matter was discussed in the Planning Commission and a decision was taken that the Company would not commission second stream of digesters till such time that adequate outlet for alumina was assured. As such the Company continued to run the first stream. He added as follows :

“In the contract, it was stated that 54 months would be the maximum time by which the Plant was to be commissioned and within 12 months thereafter, Hungarians were to give performance guarantee. There was 9 months delay. In April, 1973, the Hungarians agreed that since one stream was running they will give performance guarantee for one stream and in another 6 months (i.e. by 30 November, 1973) if there is outlet of alumina to run the second stream, then they can discuss about proving the performance guarantee for the whole plant including the second stream also. But adequate alumina outlet could not be assured. It was, therefore, decided to get performance guarantee for one stream.”

2.31 The Committee desired to know whether the decision not to have guarantee tests on the second stream was taken with the approval of the Ministry. The Secretary, Department of Mines stated :—

“The decision not to have a guarantee test was taken by the Board of Directors. The agenda of the Board meeting and the minutes of the meetings do come to the Government. But it was not necessary for the Company to take a formal approval of Government for this decision. The contract was between the Company and Hungarians. It was left to their judgement to decide whether the guarantee test should be carried out or not.”

2.32 Asked as to how the alumina produced between April, 1973 and May, 1975, (when the first phase of the smelter was commissioned), was utilised a representative of BALCO stated that the Company produced 18,792 tonnes of alumina in 1973-74 and 55,350 tonnes in 1974-75. Of this 37,416 tonnes was exported in the year 1974-75. Another 36,386 tonnes was exported in 1975-76.

2.33 In this connection, the Secretary, Department of Mines stated that the Company had to depend upon Russian market. Russians gave short term contracts. They did not have bauxite and fed their smelter with a blend of the floury type of alumina produced by BALCO with another type viz. sandy type. BALCO's cost of production was also very high.

Revamping Scheme

2.34 According to the annual report (1981-82) of the Department of Mines though the planned capacity for alumina in the Korba Complex was

2 lakh tonnes per annum, which would exactly match the melting capacity of 1 lakh tonnes of aluminium per annum, operational experience had shown that the alumina plant could only produce upto 1.5 lakh tonnes per year on a stable basis. A revamping scheme was stated to have been taken up to raise the capacity of alumina plant to 2 lakh tonnes per annum. The Committee enquired the reasons for lower capacity of the plant than originally assessed. The company stated in a note that in March 1976, it was decided to run the plant at its rated capacity of 2,00,000 TPA. By June 1976, it became evident that the Alumina Plant was not capable of reaching its rated capacity because of certain constraints in the plant itself. Therefore, an In-House Committee of experts was constituted by BALCO to examine the reasons for the shortfall and make suitable recommendations. The Committee submitted its findings in July 1976. In brief the Committee came to the conclusion:-

- (a) The achievable capacity of plant was 1,50,000 TPA.
- (b) With the completion of minor modifications suggested, including addition of filters, the capacity could be increased to 1,70,000 TPA.
- (c) For achieving 2,00,000 TPA, both vanadium separation and extra evaporation capacity should be set up after consulting Hungarians.

2.35 In this connection, the Chairman-Managing Director, BALCO stated in evidence:-

“... we should agree and accept that plant as we got from Hungarians was not free from deficiencies. There were deficiencies and while we tried it on one stream these deficiencies could not be detected. Later on in the salt separation process, we could detect that.”

2.36 Asked about the steps taken to rectify the defects the Company in a note furnished after evidence stated that the In-House Committee had recommended certain modifications/additions to achieve a rated Alumina Plant capacity of 200,000 TPA at an estimated cost of Rs. 2.27 crores. This, *inter alia* included Rs. 1.06 crores for the salt Separation Scheme. As regards the Salt Separation Scheme and extra evaporation capacity, the Board decided to seek the opinion of M/s. Chemokomplex The Consultants for Alumina Plant. After on-the spot study in November, 1976, M/s Chemo-komplex submitted a report in January, 1977 alongwith their proposal for revamping the alumina plant to ensure its performance at a rated capacity of 200,000 TPA. The Board of Directors at its meeting held on 23rd February 1977 considered the Hungarian offer and approved their association for revamping of alumina plant. The Board also decided at the same meeting that the Hungarians should be asked to include in their proposal an extra production of 10% over and above 200,000 TPA, so that

in the event of any shortfall in the production of alumina, which was not unlikely in a chemical plant of this nature, the metal production was not affected. The enlarged scope of work was discussed with the Hungarians who agreed to revamp as well as expand the capacity of alumina plant by 10 % at the originally quoted price of Rs. 25 lakhs in two stages, Viz.. preparation of feasibility report and assistance during implementation. Accordingly, an agreement was signed with them. Experts of M/s. Chemokomplex, after making detailed in depth study of the working of the plant during the period June-August 1978 submitted their report in December, 1978.

2.37 The Board of Directors in their meeting held on 30th July, 1979 considered the above report and decided in favour of going up to 200,000 TPA alumina plant capacity. Subsequently, during the meeting held on 6th September, 1979, the Board of Directors approved the revamping of Korba Alumina Plant, at an estimated total cost of Rs. 4.71 crores (which included the provision of Rs. 1.53 crores for modifications). Since the cost of the entire scheme involving modifications recommended by the In-House Committee and revamping based on the recommendations by Hungarians exceeded 10% of the capital cost of the Alumina Plant, approval was sought from E.F.C. in October, 1979 and Government accorded approval in June, 1980.

2.38 The cost estimates increased from Rs. 4.71 crores to Rs. 6.50 crores. The increase was attributable to the following main reasons:

(i) Under provisioning in the estimates	Rs. 92 lakhs
(ii) Change/addition in the scope of work	Rs. 47 lakhs
(iii) Wage escalation	Rs. 27 lakhs
(iv) Material escalation	Rs. 13 lakhs
	<u>Rs. 179 lakhs</u>

2.39 The revamping scheme originally expected to be completed by the middle of 1982 was now expected to be completed by March, 1983. On being enquired as to the reasons for this delay, the Chairman Managing Director, BALCO stated that the major problem was with the fabrication units at Calcutta.

2.40 Asked to state whether the decision not to perform guarantee test on second stream was correct in view of the fact that an additional expenditure of Rs. 6.50 crores would have to be incurred on the revamping scheme, the Secretary, Department of Mines stated in evidence:

“Even if we had run the plant at that time, the maximum penalty we would have collected from them was only Rs. 6 lakhs. The Company did not carry out the test on the second stream because it would have had to make an outlay of Rs. 12 crores without getting any return on it.”

Smelter & Fabrication Facilities

2.41 According to the DPR, the Korba Aluminium Complex consisted of smelter of 100,000 tonnes per annum capacity, out of which 35,000 tonnes were to be converted into properzi rods, 10,000 tonnes into extrusions and 40,000 tonnes into rolled products in the fabrication facilities. Later the provision for extrusions was changed to 7000 TPA.

2.42 Of the four phases of the smelter of 25,000 TPA capacity each, only two phases were commissioned in May 1975 and September 1977 respectively. The remaining two phases which were ready in December, 1977 and September 1978 have not so far been commissioned. This was stated to be due to failure on the part of MPEB to supply adequate power.

2.43 However, from the statement furnished by the Company regarding scheduled and actual dates of commissioning of various units, it was noticed that even the mechanical completion of various units was delayed. Even after mechanical completion, some of the units were not commissioned for a long time. While the two pot lines of smelter were commissioned by September, 1977, the matching fabrication facilities were not ready even till then. The Committee desired to know the reasons for this delay. Bharat Aluminium Company stated in a note that the construction of smelter phase-I was delayed on account of delay on the part of the Soviet Consultants in supply of technical documentation for the preparation of DPR and delays in securing construction materials like steel and cement because of acute shortage during a certain part of the construction period. The delay in commissioning of smelter phase-I was on account of inability of Madhya Pradesh Electricity Board to supply 55 MW of power needed.

2.44 In regard to the delays in Construction and commissioning of II, III and IV phases of the smelter and the fabrication facilities the Company stated that in 1974-75, there were serious financial constraints on the one hand and uncertainty of power supply on the other. In the meeting held in the Planning Commission to consider the annual plan proposals of BALCO for the year 1975-76, it was indicated that there was no possibility to get power for the II, III and IV phases of the smelter till the end of 1976-77.

The construction of the other phases of the smelter was, therefore, kept at a low key.

2.45 The Secretary, Department of power agreed in evidence that a deliberate decision was taken to slow down the construction for want of power and constraint of resources. Asked what was the reasons for advising the company to go slow on fabrication facilities also which did not require much power, the witness stated that the fabrication facilities required about 80,000 tonnes of metal. Under the Aluminium Control Order, 50 per cent of the total production of metal had to be in the form of E.C. grade. When BALCO was producing 25,000 tonnes of metal, only 12,500 tonnes of metal would have been available for fabrication facilities which would mean that the fabrication facilities would also have been grossly under-utilised, the utilisation being 10 to 15 per cent. This was the reason why the company was advised to defer the construction of fabrication facilities.

The witness, however, added :—

“When the Government advised the management to go slow on the construction of fabrication units, these units were re-scheduled from 1975-76 to 1977-78. Thereafter, the Government did not ask them to go slow on the construction. From 1978 onwards, there have been a series of factors which led to delay in the construction of fabrication units by two to three yearsOne possible reason is that it was for the first time in the country that such sophisticated equipment was being made. The Government took, a deliberate decision to ensure that the maximum of equipment was manufactured indigenously. If we had imported the equipment, we would have got them earlier. But the Government encouraged indigenous production and it was produced indigenously. This was a positive gain for the country.”

2.46 The Committee enquired as to the reasons for non-commissioning of some of the fabrication units even after mechanical completion. The Chairman-Managing Director, BALCO stated during evidence :—

“Mechanical completion does not give us the assurance of its working on full capacity. So there is a period what is called a trial run production period. During this period all the necessary trial runs are carried out along with the commercial production. Whatever we are producing is sold. Still the plant is being run on trial run to rectify any defects that come into the picture after mechanical completion.”

2.47 When the Committee desired to know whether any action was taken against the suppliers of equipment for delays in making supplies for various units and whether any penalty was imposed on them, the company in a note furnished after evidence stated that responsibility for the delays have been identified and penalty clause would be invoked at the time of finalisation of bills of the suppliers. In regard to delays in supply

by public undertakings like BHEL and HEC, it was stated that the matter was brought to the notice of Department of Mines who took it up with the concerned Ministries.

2.48 Asked to state the action taken by the Ministry in regard to delays on the part of public Undertakings, the Secretary stated :—

“.....at the performance review meeting held by the Secretary of the Ministry in 1978, the considerable slippages that had taken place in the setting up of fabrication facilities were commented upon and Secretary directed to personally review the position quarterly with the concerned agencies including Hindustan Steel Works Construction Co., the Heavy Engineering Corporation, the BHEL and other suppliers and make additional efforts to see that the commissioning schedules are adhered to. The Secretary further said that in case any assistance of the Ministry was required, it may be brought to his notice.....So far as we are concerned, we can only bring these failures or delays to the notice of the concerned Ministry. The Ministry which controls these particular public sector concerns is addressed and it is up to them to take remedial measures. After all we cannot directly interfere with them. At the Government level, they do correspondence and hold discussions with their counter-parts in the contracting firms. They report to the Ministry and the matter is taken up not only by Secretaries but also at the level of the Ministers. I can recount any number of instances of this type where we have sought intervention of Ministers in writing to their counterparts.....There were responses and promises. But the fact of the matter is that there were considerable delays in supplies.”

2.49 On being asked to state when all the fabrication units would be fully commissioned, the Chairman-Managing Director, BALCO stated in evidence as follows :—

“Hopefully, we will commission all units by the end of the financial year, or even earlier. However, even if we commission these units, we may not be able to produce to full capacity, because there is no immediate demand for the entire productionand also (due to) non-availability of metal from the smelter.”

2.50 The Committee desired to know the position in regard to performance guarantee tests for smelter and fabrication units. The witness stated that guarantee for only one phase of the smelter had been taken. On a query whether on running all the phases of smelter there was any possibility of facing problems similar to those faced in alumina plant, the witness stated that since all the four phases of the smelter were of exactly identical specifications, there was no possibility of any failure. After the performance

guarantee test was finished on phase I, the company tried phase II, and it worked similar to Phase I.

2.51 In regard to Hot and Cold Rolling Mills, the CMD stated that though Russinas were not obliged to give performance guarantee, they have agreed to give performance guarantee tests as soon as these were commissioned after removing all the plug points and rectification. As far as extrusion presses are concerned, one press had been commissioned while the other two were in the process of commissioning after rectification. All these were still under performance guarantee clause and the contractors had the obligation to give performance guarantee test.

C. Capital Cost

2.52 The original estimated cost, cost as revised successively and upto-date investments in the various projects of the Company were as follows :—

(Rs. in crores)

Name of Establishment	Original sanctioned cost	Revised sanctioned cost		Upto date Investment (as on 31.3.82)
		First Revision	Final Revision	
KORBA PROJECT :				
1. Alumina Plant (including Mines)	33.70	—	38.72	38.72
2. Smelter & Fabrication Complex.	152.35	236.81	283.45	272.37
3. 2nd Properzi Mill 25000 TPA	2.30	—	—	2.30
4. Revamping etc. of Alumina Plant	4.71	—	6.50	2.28
5. Gandhamardan Mines	31.23	—	—	—
	<u>224.29</u>			<u>315.67</u>

2.53 The Committee desired to know how much of the increase of Rs. 131.10 crores in the cost of smelter and fabrication complex was on account of delays in construction. The Company stated in a note that an increase of Rs. 104.86 crores took place on account of capitalisation of interest charges due to prolongation of construction period. On a query

regarding cost of production, a representative of the Company stated in evidence that the additional cost of production per tonne of aluminium on account of capital cost escalation was Rs. 1250.

2.54 The Committee enquired about the break-even point for the project as per actual capital investment at the current level of prices. The Ministry stated in a note that the entire production of aluminium metal including the portion which is used by a producer for further processing and sale is subject to price control. A producer is entitled to a retention price which covers the cost of production and includes a return on net worth part of the capital employed based on capital utilisation. Thus the question of break-even level of production does not arise in regard to metal. Apart from metal, the price of wire rods is also subject to control on the same principles. It may, however, be added that the present retention price which is in force from December 3, 1981 does not reflect the subsequent increase in cost of power. There have also been escalations in wages salaries and other elements of fixed cost which are not fully reflected in the retention price. Besides, the actual production has fallen short of the estimate made for the purpose of pricing. In working out the break-even point for the project the following assumptions are made. :

- (i) There is no loss on account of metal and properzi rods. The return on the net worth part of the capital employed has not been taken into account.
- (ii) The differential between the sale price of ingots and that of rolled and extruded products is at present on an average Rs. 5289/- tonne of rolled products and Rs. 6289/- tonne of extruded products. The market is currently in a depressed state and the margin should increase by Rs. 1000/- per tonne.
- (iii) The working capital for rolled products and extrusions is estimated at two months' cost of raw materials, wages, salaries etc.
- (iv) The working capital requirement is financed through commercial borrowings.
- (v) The product mix is the same as given in the Detailed Project Report.

With above assumptions the break-even level of production would be as follows :—

Rolled Products	36,000 tonnes (90% of capacity)
Extrusions	6,300 tonnes (90% of capacity)

There is no break-even point on the current level of prices of rolled and extruded products.

2.55 The Committee are surprised to note that there has been no synchronisation in the setting up of different units. The alumina plant having a capacity of 2 lakh tonnes per annum was ready by April, 1973. However on account of inordinate delay in taking investment decision in regard to smelter and fabrication facilities, the first phase of smelter was completed only in May 1975, i.e. after two years of the Completion of the alumina plant. Thus the plant set up in April 1973 at a cost of Rs. 38.72 crores had remained largely unutilised till May 1975. What is worse, as there was no internal requirement or external outlet for alumina, performance guarantee tests on the second stream of the alumina plant to prove its rated capacity were not carried out. Subsequently when the plant was fully commissioned it was noticed that there were several deficiencies, and the plant was capable of producing only upto 75% of its rated capacity. A revamping scheme undertaken by the Company to reach the original capacity was estimated to cost Rs. 6.50 crores. No part of it could be recovered from the consultants as the guarantee period had in the meantime expired. The Committee need hardly point out that this state of affairs could have been avoided had Government not taken six years for taking investment decision after the Cabinet Committee had decided in 1965 to go in for smelter of one lakh tonne per annum. Surprisingly the Ministry *inter alia* took about 13 months in finding out whether indigenous expertise was available, which was not there and over a year in issuing sanction after the receipt of DPR. The Committee take a serious view of such inordinate delays in decision making.

2.56 Another aspect which causes concern is the inadequate provision for liquidated damages in the contracts entered into with the consultants. In spite of the fact that an expenditure of Rs. 6.50 crores would have to be incurred on revamping scheme to attain capacity of 2 lakhs tonnes of the alumina plant, the Secretary of the Ministry informed in evidence that even if the plant had been run within the performance guarantee period, the maximum penalty that could have been collected from the consultants was Rs. 6 lakhs. The Committee would invite attention in this connection to the guidelines issued by BPE in 1977 in regard to entering into foreign collaboration agreements by public enterprises and would stress that at least in future the liquidated damages should have a relationship to the loss in terms of value to which the undertaking may be put on account of failure of the consultants.

2.57 There has also been delay in the implementation of the revamping scheme. Although the Hungarian Consultants had submitted their report in January 1977 containing proposals for revamping the plant to ensure its performance at rated capacity of 2 lakh tonnes per annum it was not before June 1980 i.e. after 40 months of the receipt of the Report that Government finally accorded approval to the scheme costing Rs. 4.71 crores. Even thereafter it was found that there was under-estimation of the cost of the project and the estimates have now been revised to Rs. 6.50 crores. The main reason for the

delay was the decision taken by the Board to increase the capacity of the plant by 10% which was ultimately cancelled. Considering the fact that the capacity of the plant had been decided at Government level keeping in view the capacity of the smelter, the Committee are unable to appreciate the decision of the Board which caused considerable time and cost over-run in the implementation of the scheme.

2.58 There have also been inordinate delays ranging from 7 months to 83 months as compared to the original schedule in completion/commissioning of the different units of smelter and fabrication facilities. Even after mechanical completion there was delay ranging from 2 to 17 months in commissioning the units. Some of the units have not yet been commissioned. While the two pot lines of smelter were commissioned by September, 1977 after a delay of 33 months, the matching fabrication facilities were not ready with the result that the limited production of ingots could not be converted fully into the finished products resulting in less sales realisations.

2.59 Although at one stage the construction had to be slowed down in view of constraints of resources and power, the Committee find that this meant rescheduling of the commissioning of the units from 1975-76 to 1977-78. Even after re-scheduling delays up to five years have taken place in construction and commissioning. There has been an escalation in capital cost of Smelter and fabrication facilities of the order of Rs. 131.10 crores i.e. 87% over the original estimates. Out of it the escalation in cost on account of delays in construction was of the order of Rs. 105 crores and the cost of production of metal went up by Rs. 1250 per tonne which would have to be ultimately borne by the consumers. Further, in regard to rolled products and extrusions which are not covered by the retention price system it has been estimated that even on full capacity utilisation, the Company would not be able to break even at the current level of prices. The Committee feel that these are unhappy state of affairs. The Company has neither been able to maintain the original schedules nor the revised. They feel it is a fit case for detailed examination by Government to identify the factors which caused delays in implementation of the projects and for evolving suitable remedial measures to avoid heavy time and cost over-runs in future.

CHAPTER III

PRODUCTION PERFORMANCE

A. Capacity Utilisation

3.1 The total capacity of production of Aluminium in the country during 1981-82 was 3,21,000 tonnes while the total production of Aluminium during that year was 2,06,766 tonnes i.e. 64% of the capacity. As far as BALCO is concerned, at present it has installed capacity of 1,00,000 tonnes. The following table shows installed capacity, targets, actual production and loss of production at the Korba Smelter since its inception :

Year	Installed capacity	Target	Actual production	Loss of production	Value of loss of production
	(Tonnes)	(Tonnes)	(Tonnes)	(Tonnes)	(Rs. crores)
1976-77	39,500	25,000	24,761	14,739	10.80
1977-78	52,000	56,000	38,681	20,319	14.89
1978-79	83,500	74,000	33,450	50,050	41.75
1979-80	1,00,000	50,000	29,499	70,501	63.64
1980-81	1,00,000	50,000	28,777	71,223	69.17
1981-82	1,00,000	50,000	34,754	65,246	89.48
				2,92,078	289.73

3.2 The Committee were informed that imports of aluminium had been arranged since September, 1977 to meet the gap between the increasing demand and production in the country. 2.37 Lakh tonnes of aluminium valued at about Rs. 336 crores was imported during the period 1977-78 to 1981-82. If BALCO's production had been as per targets, imports of the order of Rs. 110 crores would have been avoided.

B. Infrastructural facilities—Power

3.3 The Company stated in a note that the principal reason for the shortfall in production was non-availability of adequate and stable power from Madhya Pradesh State Electricity Board. The Korba Aluminium Complex, along with downstream facilities of rolled and extruded products and wire rods, was sanctioned by Government on the basis of a series of written assurances given by the MP Government from time to time. But when it came to the supply of actual power, various excuses were put forward to delay the power supply.

In 1962, MPEB had, in general terms, assured supply of full requirements of power at a reasonable tariff. In October, 1967, the following phasing of power requirement was indicated by the Company to the State Government :

1971-72— 65 MW

1972-73—165 MW

1973-74—265 MW

In May 1968 the Government of Madhya Pradesh formally committed to supply the requirement of 265 MW power to the aluminum project and requested the Central Government to ask BALCO to enter into a long-term agreement of 30 years with MPEB. The main features of the terms set out by the M.P. Government were (i) the power rate on a graded scale from time to time, (ii) Minimum charge based on contract demand and (iii) Impact of load factor on the tariff. MPEB was also kept informed of the commissioning schedule of the Plant, from time to time. But at a meeting held in May, 1974 between the Minister of Steel & Works and Minister of Irrigation and Power at which representatives of the Planning Commission, Central Water & Power Commission, Atomic Energy Commission and MPEB were also present. MPEB for the first time put forward the plea that no power could be made available to BALCO until the Thermal Power Units at Korba and Amarkantak were commissioned in 1976. Subsequently, in July, 1974, the Prime Minister wrote to the Chief Minister, MP expressing her astonishment at the MP Government backing out of its commitments to supply power to BALCO and finally the State Government agreed to supply 55 MW of power which enabled BALCO to commission the first potline in May 1975, two months after mechanical completion.

3.4 On 21.3.1975, the Minister of Steel and Mines requested the Minister of Energy to find further power for Korba Smelter, the second potline of which was expected to commence production after the monsoon of 1975. The Secretary (Power), after reviewing the position with the senior officers of the MPEB, including its Chairman, informed the Department of Mines that it should be possible for MPEB to make power available after the 120 MW power unit at Korba was commissioned in March, 1976. Based on this commitment, BALCO had got its second potline ready from June 1976. However, power for the second potline was released only w.e.f. September, 1977. The third and fourth potlines which had been ready since December, 1977 and August, 1978 respectively have not so far been commissioned for lack of power supply from the MPEB.

3.5 The Committee desired to know whether a contract as suggested by the M.P. Government in 1968 had been entered into with the MPEB. A representative of BALCO stated in evidence that as a formality, the contr-

act had not been signed Unless the Company had with it the firm dates for taking phased power supply, the contract could not be entered into. He added :

“.....We could give the phased power requirements on the basis of Government sanction, that was available in 1971. From 1971 onwards, we started negotiations with Madhya Pradesh Electricity Board. They gave us a standard contract which they enter into with other High Tension consumers. There were certain clauses on which basic differences arose. One was at what level the power supply should be treated as abnormal supply so that we do not have to bear the minimum charges. Another was about the fuel surcharge. The third point was that 2-3 months time is required to stabilise the power..... With the good offices of our Ministry somehow these problems have been sorted out. On this basis, we have prepared a draft contract and now this is going to be finalised.”

3.6 In this connection, the Department of Mines in a note submitted after evidence stated that the contract could not be entered into because MPEB/State Government raised various points, substantial as well as procedural which did not permit BALCO to enter into an agreement. While discussion between the State Government and BALCO, Central Government dragged on, the M.P Government in June 1973 communicated two major objections, which in effect constituted withdrawal of the assurance originally given in May 1968. These two points were :

(i) The State Government was not willing to ask MPEB to enter into the contract, for 30 years, as it had earlier promised; and

(ii) the State Government was also not willing to advise the State Electricity Board to enter into a tariff agreement without an escalation clause.

3.7 Through its letter dated 15.7.1975, the Central Government suggested to the State Government a graded scale of power tariff which was not agreed to by the State Government. From then onwards the State Government has avoided entering into an agreement, merely on the ground that sufficient power was not available.

3.8 In reply to a question regarding the requirement of power and the actual supply, the Company has furnished the following information :

Year	Require ment	Average Power supplied to BALCO	Total No. of power outages	Total duration of outages in Minutes
	MW	MW		
1977-78	134	74.3	9	617
1978-79	210	83.3	55	4989
1979-80	235	73.7	91	5688
1980-81	235	69.3	87	5435
1981-82	235	84.2	123	4695

3.9 During the course of evidence, the CMD, BALCO explained that the large number of interruptions created problems for the equipment and affected the output. If uninterrupted power was made available to the Company, it could certainly achieve the targets.

3.10 The Committee were also informed by the Company that while the expansion of the Korba Thermal Station was justified specifically with reference to the setting up of the Korba Smelter, and attempts were made by the Department of Mines to get higher priority for the procurement of Turbo-Generating Set based on the requirements of the Smelter, adequate power was not earmarked for the Korba Complex from the unit. In this connection the Secretary of the Ministry informed the Committee during evidence that the Chief Minister of Madhya Pradesh in a letter to the Union Minister of Steel & Mines on 5.12.1971 stated as follows :

“As the timely commissioning of this power unit is of vital importance to meet the power requirements of the aluminium smelter plant at Korba, I request you to kindly take up this matter at the appropriate level and have a high priority assigned to the unit so that its commissioning by the end of 1974 is ensured.”

3.11 The Committee were also informed that even later, assurances were given from time to time to link up the power supply with the setting up of several new/expansion of power stations, e.g. Amarkantak-I & II and Satpura-VI & VII. Although all these sets have since been commissioned and some of them have stabilised long ago, M.P. Government still states that full power could be supplied to the Smelter only after Korba-IV Station is commissioned. In the period 1976-77 and 1980-81, the increase in power generation in M.P. has been of the order of 1145 MW while the increase in the power supply to BALCO has been only about 15 MW. MPEB was stated to have continued to allow power connections to new industries.

3.12 In reply to a question as to why MPEB was not supplying power to BALCO as assured by them, a representative of the Company stated in evidence :

“They say that they had certain other priorities.”

3.13 The Committee desired to know whether any control was exercised by the Central Government over the distribution of power. The Joint Secretary, Department of Power stated in evidence as follows :

“As per the constitutional provision, power is listed in the concurrent List and Electricity (Supply) Act has given powers of distribution to State Electricity Boards.....all distribution, transmission and supply of power is done only by the State Electricity Boards. Generation in the Central Sector is now accepted as a policy... ..but even then, distribution continues to be with the State sector. We have no control to give directive or to say, you give power to this or that; we can only exercise a moral persuasion and we can frame model guidelines. We have categorised different kinds of consumers under a priority list. When there is a power cut, the more important industry should be cut last. The less important industry should be cut first.....We have given guidelines, as to how to operate things in a situation of shortage..... we cannot completely lay down how the distribution of power should be done. This work is done by the State Electricity Boards as per the law as at present.”

3.14 Asked to state whether any remedy was available to the Department of Power in case the guidelines regarding distribution of power were not followed by the States, the Committee were informed in a note furnished after evidence that since authority for distribution of power supply vests in the State Electricity Boards under the Electricity (Supply) Act, the Central Government has no statutory authority in this regard.

3.15 When the Committee desired to know the procedure for sanctioning the creation of additional capacity for power generation, the Joint Secretary, Department of Power, stated in evidence that projects involving an investment upto Rs.1 crore could be taken up by the State Electricity Boards. Beyond that, it had to be done with the concurrence and approval of the Central Electricity Authority, a statutory body, who approved the techno-economic feasibility of the project. Based on that the Planning Commission made the allocation of necessary funds in the State Plan for implementation.

3.16 Asked as to what extent interests of the public sector undertakings were taken into account while sanctioning new generation capacities and whether a certain quota could be fixed for meeting their requirements out of the additional capacity created, the witness stated as follows :

“What generally happens is that at the time of planning a public Sector undertaking, the Deptt. of Power is very much involved in it. They are given all the details. We also make an assessment to find out whether

the power required for that public undertaking would be available. After knowing the demand and supply, we make a judgement as to whether the State Electricity Board would be able to meet those requirements and, accordingly, we tell the public undertaking to take up the new project and whether they can expect to get this power or not..... but we have no way of binding them to give power generated in that particular unit to any undertaking."

3.17 The Committee desired to know whether the matter of MPEB not supplying power to BALCO from the third unit of Korba Thermal Power Station which was sanctioned for supply of power to BALCO, was specifically brought to the notice of Planning Commission by the Department of Power. The Joint Secretary of the Department stated in evidence :—

"We don't formally write to the Planning Commission. But they are aware of it because we have meetings with the Members of the Planning Commission..... We have no way of penalising them for not sticking to that agreement they made with BALCO or with the Planning Commission."

3.18 In regard to a question on the distribution of power from the Central power generating stations like the NTPC, the witness informed the Committee that the policy of Government of India to make investments in the Central generation stations was to create the capacity to tap the potential which was there and which the States have not been able to do on their own because of lack of financial resources. The Government of India have approved the Gadgil formula for sharing of power generated in these central stations and the power was sold in bulk to the respective State Electricity Boards according to this formula. Thereafter, distribution of this power was solely with the State Electricity Boards and Central Government have not taken the powers of supplying power to any particular consumer. Out of the total allocation, 15 per cent was set apart for Central allocation so that the Centre might help any State in despair and 10 per cent was given to the home state. The remaining 75 per cent, applying the Gadgil formula was distributed to the States in that region.

3.19 When the Committee desired to know whether any part of the 15 per cent power from Korba Power Station available with the Central Government could be given to BALCO, the Joint Secretary stated as follows :

"We examined that and found that if we agree to give it to one industry, the demand for such allocation is already there from a large number of industries like copper, zinc, fertilizer, steel and railways. So it is very difficult to meet the demands of all the Central sector

industries from the Central allocations.....The grid takes care of the transmission. It is a national policy and is applicable to all public sector undertakings. If we start taking transmission lines exclusively to a particular industry, it will completely upset the transmission network and such a system would not be feasible at all.....The State will have no responsibility whatsoever to give any power and you will not get other advantage of pool price; it will be tied only to the generation of the Central Station and the management of that would be very difficult. The Central Sector has, therefore, continued itself to mainly generating power.”

Captive Power Plant

3.20 As a long term solution to the problem of power supply to the Korba Aluminium smelter, a captive power plant consisting of 4 sets of 67.5 MW capacity each was stated to have been sanctioned in December, 1982 at a cost of Rs. 285 crores. In reply, to a question as to when the captive power plant would be commissioned, the Company stated in a note that the first set was scheduled to be commissioned within 45 months from the date of sanction and each subsequent unit at an interval of four months thereafter. On this basis it would be possible to operate 3 phases of smelter in 1986-87 and all 4 phases in 1987-88 (with some bought out power from MPEB).

3.21 On being asked to state the value of loss in production of Aluminium since 1975-76 till the commissioning of captive power plant, the Company informed in a note that about Rs. 378 crores worth of production has already been lost upto 1982-83 and this was estimated to go upto Rs. 646 crores by the time the captive power plant comes up in 1986-87 assuming the current average selling prices of aluminium metal fixed by Government.

3.22 The Committee desired to know why the question of a captive power plant was not considered at the time of setting up of the Company. The Chairman-Managing Director stated in evidence as follows :

“.....setting up of the BALCO plant in Korba was entirely based on the premise that there would be sufficient power generated very close to the plant in that belt where there will be coal based power stations. In the light of this, at no time was there any doubt that BALCO will not get its power supply. Upto 1975 we got power. From 1976 onwards we did not get power.”

3.23 The Committee while pointing out that the prospects of getting power from MPEB had become bleak since 1974-75 and the meeting held in the Planning Commission to consider the annual plan proposals for the company for the year 1975-76 it had been indicated that there was no possi-

bility of getting additional power till the end of 1976-77, enquired as to why a decision was not taken at that stage for the installation of a captive power plant. The Secretary, Department of Mines stated in evidence as follows :

“In April 1975 the Department of Mines took up with the Department of Power the proposal for setting up a captive power plant. The Department of Power-vide O. M. dated 22.7. 75-expressed its disagreement with the proposal and stated ‘The total power requirements of BALCO is about 200 megawatts. Arrangements have already been made for sanctioning sufficient schemes for the MP State Electricity Bord during the Fifth Five Year Plan period to meet BALCO’s demands on long term basis. A super thermal power station has been proposed at Korba-hardly 5 miles from the alumina plant. The super thermal power station would be in the central sector In view of this, this Ministry is of the view that there is no justification for BALCO to put up its own power station’..... In March 1978 this Department once again took up the question of a captive power plant for BALCO and in April 1978 the Department of Power reiterated there views that there was no need of a captive power plant in Korba as the proposed power projects on hand and the newly sanctioned ones would meet the full demand beyond 1982-83. They also said that the various projects sanctioned and the super thermal power station at Korba would obviate the necessity of a captive power plant..... .. The Minister took it up with the Department of Power. In March, 1982 Secretary, Department of Power, admitted that the situation in MP would continue to be difficult for many years to come. While in 1975 we were told that there was plenty of power and no need for captive power plant, now we are told that we will not get anything, we will not get from STPP also Then we prepared the feasibility study. This was examined by Government. Sanction was issued by them for captive power plant.”

3.24 Asked to state the present stage of the captive power plant, the Department of Mines in a note furnished after evidence stated that adequate provision of funds had not been made to take up work in 1983-84.

3.25 The Committee desired to know the estimated cost of generation of power from the captive power plant as compared to the rates charged by MPEB. The Secretary stated as follows :

“The estimated cost of power is 41.87 paise per unit. As against this, the MPSEB supplies power to BALCO at 40.25 paise per unit.....As a matter of fact, in the long run, if I might explain, the cost of power to the aluminium plant from a captiv power plant should be much less than the public tariff rate. Under the grid system, many costs are

included, like the cost of generation, the cost of transmission, the cost of distribution, the line losses over a wide network and, of course, overheads whereas, in the case of a captive power plant which is located next door to the aluminium unit, there should be no line losses, no cost of transport, virtually nil, no distribution cost and very little overheads. It is only the cost of generation."

3.26 The Committee note that during the period 1979 to 1982 capacity utilisation of the Aluminium Smelter has ranged from 29% to 35%. The Company has failed to achieve even the targets fixed each year. The value of loss of production on account of shortfall in production with reference to installed capacity during 1976-82 amounted to about Rs. 290 crores. During 1977-82, aluminium valued at about Rs. 336 crores was imported to meet the gap between increasing demand and production in the country. The Committee feel that the imports could have been largely avoided had the company been able to fully utilise its installed capacity.

3.27 The main reason for the shortfall in production is stated to be non-availability of adequate and stable power supply from Madhya Pradesh Electricity Board. The Committee are distressed to find that in spite of the fact that the State Government of Madhya Pradesh had formally committed in 1968 to supply the required quantity of 265 MW of power to the aluminium project, the actual average power supply has ranged between 69 MW to 84 MW during 1977-82. With the result that two potlines (50% of the capacity) could not be commissioned at all and the power supplied was not adequate even to operate the remaining two potlines to their full capacity. The chronology of events in the earlier paras indicate that though the Company had been assured of power supply from time to time, when its units were ready for commissioning power was not made available. It is surprising that having set up a plant with all the necessary surveys etc. indicating immediate and future power requirements of the Company and the power available and likely to be available in the area, and after such a huge investment (more than Rs. 315 crores) all the concerned authorities are helpless in providing power to the Company to meet even its basic requirements. The Committee have found that most of the enterprises are suffering on account of inadequate and irregular power supply. They would like the Central Government to take up the issue at the highest level with the concerned State Governments and make them fully aware of their obligation to supply adequate and regular power to the public undertakings set up in their States.

3.28 The Committee are also surprised at the helplessness expressed by the Ministry of Energy in making available any additional power to the Company in spite of the fact that substantial funds have been sanctioned by the Planning Commission from time to time for creating new power generation capacity in M.P. to meet BALCO'd demands on long term basis. The Korba Super Ther-

mal Power Station, being set up by the NTPC at a distance of hardly 5 miles from the aluminium plant, does not give any ray of hope to the Company. According to the Ministry while the generation of power in the Central Sector is now accepted as a policy, the distribution continues to be with State Governments and they had no control over it. The Committee desire that the matter deserves serious consideration to find a satisfactory solution to this problem.

3.29 In spite of the fact that as early as 1974-75, it became clear that there was no possibility of getting power for II, III and IV phases of smelter till the end of 1976-77 and the Department of Mines took up the proposal for setting up the captive power plant in April, 1975, this was not agreed to by the Department of Power. It was not before 1982 that the justification for the captive power plant was realised and a plant of the capacity of 270 MW was sanctioned. The failure to take timely decision in regard to captive power plant has cost heavily in terms of production loss. The Company has already lost production worth about Rs. 378 crores upto 1982-83 as against the estimated cost of Rs. 285 crores for the captive power plant and the production loss was estimated to go up to Rs.646 crores by the time the power plant comes up in 1986-87 assuming the current average selling prices of aluminium metal fixed by Government. Strangely enough adequate funds have not yet been made available to take up the work in 1983-84. The Committee would urge that there should be no further delay in setting up the captive power plant for BALCO and the required funds should be made available as early as possible so that construction of the Plant could be taken up in time.

The Committee find that 15% of the power produced by super thermal power plant of N.T.P.C. at Korba has been set apart for allocation by the Centre. They desire that out of this quota, power should be made available to BALCO for meeting their immediate requirements till the captive power plant comes up.

C. Production of Fabricated items

3.30 The present installed capacity of 100,000 tonnes of aluminium metal comprises 35,000 tonnes properzi rods, 7,000 tonnes extrusions and 40,000 tonnes rolled products. The Rolling Mills have not so far been commissioned. The production of properzi rods and extrusions during the period 1979-80 to 1981-82 was as under:-

	1979-80		1980-81		1981-82	
	Installed capacity	Actual production	Installed capacity	Actual production	Installed capacity	Actual production
Properzi Rods	10,000	10,520	10,000	12,481	35,000	13,403
Extrusions	700(a)	150	700	649	700	835(b)

- (a) Commercial production from the first press (800-T Press) commenced in December, 1980.
- (b) Mechanical completion in September, 1980 of the second press (2500-T Press)

3.31 The Committee desired to know the reasons for low production of properzi rods in the year 1981-82. The Company stated in a note that properzi rods were produced out of primary EC grade metal, which should be 50% of total primary metal. In 1981-82 EC grade metal production accounted for only 37% of the total metal production and therefore, properzi rods production was limited to the extent of EC grade metal content in the total production.

3.32 Asked to state the reasons for lower production of EC grade metal, the Chairman-Managing Director. BALCO stated in evidence that this was due to contamination of a particular type of coke viz. calcined petroleum coke at the port which was used for manufacture of Anode Paste consumed in the process of electrolysis of alumina for production of aluminium. This affected the purity of metal resulting in lower production of EC grade metal which required higher purity and was used in cables and conductors.

3.33 Subsequently, the Committee were informed in a note submitted by the Company that BALCO's requirements of CP coke were met from the indigenous manufacturers, primarily from the Barauni refinery of the Indian Oil Corporation where crude from Assam oil fields was processed. IOC informed BALCO in May 1980 that they would not be in a position to supply CP Coke due to total depletion of their raw petroleum coke stock and uncertainty in recommissioning of the refinery owing to continued Assam disturbances. Accordingly, an order for supply of 6,000 tonnes of CP coke was placed in August 1980, at the rate of US \$ 252 per tonne C&F basis, on M/s. Mitsui & Company, Tokyo, Japan, agents of the manufacturers, M/s. Union Oil Company, USA after inviting global tenders. 6463.848 tonnes of CP coke in bulk (loose condition) arrived on 2.11.1980 at Vizag port and unloading was completed by 9.11.1980.

3.34 Asked to state as to how the contamination took place, the Company stated that the wharf area had to be cleared immediately after the discharge of the cargo. It had not been possible to bag such large quantity in the short time allowed and hence the cargo had to be shifted from the wharf to an open area allotted by the port about a kilometre away from the wharf. Material from Vizag was despatched by rail rakes depending upon the availability of wagons and received at Korba over the period from November, 1980 to March, 1981. One rake of open wagons containing 1047 tonnes was moved in loose condition. The balance quantity was bagged and moved in covered wagons from Vizag.

3.35 Owing to storage in the open area, the material was subject to contamination from winds carrying sulphur, coal dust etc. from adjoining areas where these materials were stored as also from rains. On receipt of the first rake at plant site, test samples were drawn on the same day and the

results indicated that the material was inferior, particularly due to higher ash content. Similarly the last bagged consignment of 443 tonnes was also found contaminated. Except these two consignments, the rest of the material received in bags during January/February 1981 was conforming to the purchase specifications.

3.36 On being enquired as to the quantity of CP coke thus contaminated, a representative of the Company stated in evidence:-

“After the material was unloaded from the wagon into the silos, samples were drawn before using it. When the samples were analysed, it was found that some portion of it was contaminated. Because the whole thing got mixed up we could not establish the exact quantity of it.”

3.37 In reply to a question as to why the contaminated CP coke was used, the Company stated in a note that due to non-availability of indigenous CP Coke, there was no alternative to consuming the imported CP Coke which was done after removing large sizes of foreign particles. With the improvement in the indigenous availability from April 1981, a suitable blend of imported Coke and indigenous Coke was worked out and the blended material was used there after. The entire quantity of imported CP Coke was used in the Plant during the period December 1980 to September 1981.

3.38 The Committee enquired the quantum of loss to the Company due to use of contaminated coke. They were informed that there was no loss of metal production as a result of use of the contaminated CP Coke from imports. However, there was decrease in the proportion of production of EC grade metal as a result of use of the contaminated Calcined Petroleum Coke from 45% in 1980-81 to 36.6% in 1981-82. The maximum loss that could be estimated as due to lower production of EC grade metal from the use of contaminated CP Coke during 1981-82 was stated to be about Rs. 2,90,000 due to a price differential of Rs. 100/- per tonne between EC grade metal and Commercial Grade metal.

3.39 In the Quarterly Performance Review Meeting held in March 1982, Department of Mines had desired that the question relating to contamination of imported CP Coke should be examined and responsibility should be fixed. Asked to state the action taken in the matter, the Committee were informed that the matter was reviewed by General Manager, Korba in July 1982. and he concluded that “It is difficult to fix responsibility on any agency.” However, a further investigation in depth was being conducted with a view to identifying specific sources of lapses in handling, storage and transport of the material.

3.40 The Committee desired to know what steps the Company was contemplating to prevent such contamination in future. They were informed in a note that a team consisting of a representative each from Smelter and Central Laboratory went to Vizag on 1st May, 1981 for on-the spot study. The team made several recommendations regarding handling, transshipment and storage of CP Coke.

3.41 The Committee find that as against the installed capacity of 35,000 tonnes, the actual production of properzi rods in 1981-82 was only 13,403 tonnes. This was stated to be due to lower production of EC grade metal on account of contamination of imported calcined petroleum coke, resulting in a loss of about Rs. 3 lakhs to the Company. The material is stated to have been subject to contamination owing to storage in the open area near the wharf. The Committee regret that in spite of the fact that in the quarterly performance review meeting held in March 1982, the Ministry had asked the Company that the matter should be examined and responsibility fixed, no such responsibility was fixed. It is only now, after the matter was taken up by the Committee, that further investigation in depth has been ordered with a view to identifying specific sources of lapses in handling, storage and transport of the material. The Committee desire that the investigation should be expedited.

CHAPTER IV

FINANCIAL ANALYSIS

A. Cost of Production

4.1 The following statement indicates the standard cost, budgeted cost and actual cost of various products in Bharat Aluminium Co. during the last three years :—

(Cost per tonne/Rs.)

	1979-80			1980-81			1981-82		
	Stan- dard	Budge- ted	Actual	Stan- dard	Budge- ted	Actual	Stan- dard	Budge- ted	Actual
Calcined Alumina	1276	1304	1660	1585	1703	1973	1905	1912	2527
Hot Metal	7960	8847	12574	9735	12028	14194	12245	14808	17830
Ingots	8090	10346	12601	9885	12649	14382	12425	16583	18252
Properzi rods	8330	10148	12715	10145	12629	14584	12605	16567	18624

4.2 The standard costs were stated to have been specially computed for the current analysis. The company did not compute the standard costs earlier, as two of the pollines of smelter had not been commissioned and major sections of the Fabrication units were under stabilization. Therefore, the company did not find it helpful to calculate the standard cost of its limited products from time to time.

4.3 The Committee desired to know the reasons for high costs of production. The Company informed in note that higher cost of production was due to the gross-underutilisation of the plant on account of very inadequate availability of power resulting in increase in fixed costs. Other reasons for higher costs of production were stated to be continuous escalation of prices and higher levels of consumption of inputs with reference to norms thereby raising the variable costs.

4.4 In this connection the company furnished the following details regarding norms of consumption of each input for the alumina plant and the smelter at full production level and the actual average consumption in

1981-82 :—

Sl. No. Input	Unit	DPR Norm	Revised Norm	Consumption
ALUMINA				
1. Bauxite	T/T	2.6	2.5	2.51
2. Caustic Soda	Kg/T	100	98	113.5
3. Steam	T/T	2.78	3.20	3.33
4. Furnace Oil	Lit/T	133	—	133.1
SMELTER				
1. Cal. alumina	T/T	1.925	—	1.962
2. Power (DC)	Kwh/T	16020	—	17560
3. Anode Paste	Kg/T	565	—	620
4. Cryolite	Kg/T	38	42	45
5. Aluminium flouride	Kg/Γ	26	40	45

4.5 The consumption of materials was not only higher than the DPR norms but also in comparison to BICP norms in some cases. The excess consumption over the norms permitted by BICP worked out to Rs. 635/tonne for three major inputs viz. power, calcined petroleum coke pitch (used in Anode paste) and aluminium flouride during 1981-82.

4.6 The Committee desired to know the reasons for higher consumption of inputs compared to norms. The company informed in a note that the main reasons for higher consumption of calcined alumina, power and anode paste were the erratic nature of power supply.

4.7 As regards the reasons for upward revision of norms of consumption of cryolite and aluminium flouride, a representative of the company stated in evidence that whenever a new pot was started 9 tonnes of cryolite was added as initial charge. When the norms of 38 Kg./T and 26 Kg./Γ were initially fixed, they were only operational norms. In addition 9 tonnes of initial charge was to be taken as one time consumption to be charged either to relining cost or operational charge. The company, instead of putting it as one time cost of production, divided it over a period of 3 years, the life of a pot. The total flourine content which was important was maintained at 41.38 Kg. per tonne of metal production.

4.8 On being enquired as to why the consumption of cryolite and aluminium flouride was higher than even the revised norms, the witness stated as follows :—

“.....because of the erratic power supply.....Nobody is getting so erratic power supply as we are. In Aluminium smelter, even interruptions of two or three times in a year is considered to be bad enough. But we are having interruptions practically every day.....Once we get a steady power supply, our effort will be to reduce the Aluminium Flouride below the norm.”

4.9 Asked to state the reasons for higher consumption of caustic soda in the alumina plant BALCO informed in a note that this was due to higher silica content of bauxite during certain months and occasional low causticisation efficiency due to poor quality of lime. The Committee desired to know why materials of desired quality were not being secured. A representative of the company stated in evidence :—

“At one time we open two or three faces in the mine and some variation (in the silica content) will be there. We try to blend it to the extent possible. We get it from two different mines—one is Amarkantak and the other is Phutkaphar. The maximum silica content goes upto 5% and the minimum is about 3%.....all out effort is being made to get the proper quality. The variation now-a-days is not very much. The silica content is around 3.7 or 3.8% only.”

4.10 In regard to lime, the witness stated that the company was earlier getting its entire requirement from Katni and the quality deteriorated during transit. Now the company was getting half its requirement from the ancillaries and more ancillaries were being set up.

4.11 During the course of evidence the Chairman-Managing Director informed the Committee that the caustic soda consumption has come down gradually from 145 Kg/T in 1977-78 to 113 Kg./T in 1981-82. He admitted that silica content and quality of lime were not the only factors responsible for higher caustic soda consumption. The reduction of caustic soda consumption has been possible by exercising strict and precise control. A representative of the company expressed the hope that the company would be able to achieve 98 Kg./T norm in 1985.

4.12 On the question of higher consumption of steam, the Chairman-Managing Director stated in evidence that this could be reduced provided the plant was run at full capacity. Due to inability of the company to produce more metal on account of non-availability of power and due to lack of export order the alumina plant was not being run on both streams.

4.13 In regard to alumina, the Ministry suggested in the performance review meeting in March, 1982 that detailed analysis of the high cost of production should be carried out. Asked to state the results of the analysis, the Chairman-Managing Director of the company stated in evidence that according to the analysis, the major factor was the much higher cost of bauxite than other companies because BALCO had to transport bauxite from quite a good distance both by aerial ropeway and by rail. The norm of caustic soda consumption was also higher in BALCO, being 98 kg. against 90 Kg. for other companies. This was due to the quality of bauxite.

4.14 In reply to another question, the Chairman-Managing Director stated that the company has not submitted any report in this matter to the Ministry. Asked to state the reasons for not submitting a report, the witness stated :—

“Since the BICP are collecting the information and we had discussions with them, they are preparing a report to submit to the Government. We have done the analysis, we have not submitted the report.”

4.15 In this connection, the Secretary, Department of Mines assured the Committee during evidence :—

“We have asked them to expedite their report. As soon as the report is received, we will examine it and see what action has to be taken to minimise the costs.”

B. Labour Productivity

4.16 The norms of output per manshift and manpower and the actuals during the last 3 years in BALCO were as follows :—

Parameters	Norm	Actual achievement		
		1979-80	1980-81	1981-82
A. MINES				
Output/manshift (Tonnes)				
Amarkantak	3.56	1.65	1.93	1.16
Phutkapahar	2.84	0.95	0.96	0.87
Manpower in Mining & Geology	752	1136	1129	1107
B. ALUMINA PLANT				
Output/manshift (Tonnes)	0.912	0.507	0.609	0.440
Manpower	559	587	604	630
C. SMELTER				
Output/manshift (Tonnes)	0.345	0.113	0.120	0.134
Manpower	933	849	794	867

The norms for manpower are DPR norms.

4.17 Asked to state the reasons for the actual output per manshift at the mines being significantly lower than the norm, the Company stated in a

note that this was due to the fact that when recruitment was made, it could not be anticipated that there would be such a long delay in the commissioning of the last two potlines; and hence, it could not be anticipated that the bauxite mine would be required to work much below the rated capacity.

4.18 In reply to a question as to why phased employment of workers at mines was not done in view of the fact that there was low production of aluminium from the beginning, the CMD, BALCO stated :—

“Production from the mines commenced in 1971-72.....The smelter problem was in 1975-76.....Planning was done and recruitment of people and deployment was done from the point of view of full scale mining ”

4.19 When the Committee desired to know the reasons for the number of persons employed in Mining and Geology being much higher than DPR provisions, the witness stated that originally it was assumed that for every tonne of bauxite, 1.16 tonne of overburden would have to be excavated. But in actual practice the bauxite overburden ratio became 1 : 3.5. Accordingly, the norms of total number of people required for producing a tonne of bauxite had to be changed.

4.20 The CMD, however, agreed that the number of persons employed was more than actually needed by the Company at the present level of production. On the question of utilising the surplus manpower elsewhere, the witness stated :

“We will be sending some of them to Gandhamardan. Once our captive power plant is ready, we will utilise some of them.”

4.21 The reason for variation in the norms and actuals in respect of output/manshift and manpower in the case of alumina plant and smelter was stated to be the underutilisation of plant capacity due to insufficient outlet for alumina and inadequate and erratic power supply.

4.22 The cost of production of various products has been higher than the standard and budgeted costs during the last three years. This has been stated to be mainly due to gross under-utilisation of capacities on account of inadequate availability of power. Higher consumption of inputs as compared to D.P.R. norms as well as the norms fixed by B.I.C.P. for the purpose of retention price has also contributed to higher cost of production. The excess consumption of some of the main inputs as compared to B.I.C.P. norms resulted in higher cost of production to the extent of Rs. 635/- per tonne in

1981-82. This calls for greater control over the consumption of materials. The power consumption in terms of KWH per tonne of metal was also much higher (17560) than the norms (16020). This has been attributed to erratic nature of power supply. The Committee however, feel that there is scope for reduction in energy consumption in the smelter through adoption of modern control techniques.

4.23 The labour productivity was also much lower than the D.P.R. norm in the mines and alumina plant. This was due to the fact that in spite of low production, number of persons employed was even more than that provided in the D.P.R. The Committee regret to note the failure to make phased recruitment as per the requirements resulting in higher labour cost. They hope that steps would be taken for better utilisation of manpower.

C. Inventory Control

4.24 The following table indicates the comparative position of inventory and its distribution at the close of the last 3 years ended 31st March, 1982.

		(Rs. in lakhs)		
		1979-80	1980-81	1981-82
1.	Stores and spare parts	1,695.01	1,909.37	1,945.81
2.	Loose tools	19.55	19.38	20.32
3.	Raw materials	478.48	403.66	314.02
4.	Process stock (including by products)	1,086.49	1,321.05	1,724.39
5.	Finished goods	191.21	1,161.95	1,072.79
		3,470.74	4,815.41	5,077.33

4.25 The Committee desired to know the reasons for increase in inventory particularly in regard to stores and spares and loose tools, process stock and finished goods. The Company stated in a note that the work in process and finished goods inventory holding was slightly higher than normal value of one month's production. The semi-fabrication units were now approaching stable operation. For this, a fairly large quantity of billets and slabs in different alloys have to be kept as process inventory, to be used at short notice, whenever orders are received. This contributes to higher inventory of these categories than would have otherwise been expected. The inventory of stores, spares and loose tools was stated to be substantially higher than norms because very large sections of the complex have not been commissioned. As a result, the substantial quantity of initial spares which were imported with the capital equipment, are lying unused adding to inventory.

4.26 The Committee enquired the reasons for the high rise in inventory of finished goods during 1980-81 and 1981-82 in spite of low capacity utilisation in BALCO. The Chairman-Managing Director, BALCO stated in evidence that in 1980-81 the inventory was high due to a stock of 61,791 tonnes of alumina which was kept because it was in the process of export. The export contract for 50,000 tonnes of alumina was concluded with the Russians in December, 1980 and the stock was cleared in 1981-82. At the end of 1981-82, the stock of alumina was reduced to 16,470 tonnes but the stock of metal went up to 5,648 tonnes from 1,854 tonnes at the end of 1980-81.

4.27 On being enquired as to why the stock of metal increased during 1981-82, a representative of the Company stated that from the year 1981-82 onwards there was a definite recession in the market. On being asked as to how was the import of 17,000 tonnes of aluminium by MMTC in that year justified in view of the recessionary market, the witness stated that this was the residual receipt in 1981-82 as against the earlier contracts. In reply to another question, the Committee were informed that the quantity to be imported was determined by the Ministry of Steel and Mines (Department of Mines) in consultation with other Departments.

4.28 When the Committee enquired from the Secretary, Department of Mines, whether the glut in the market was not due to the imports by MMTC not being based on proper assessment of the demand, he stated in evidence that the import programme was very closely monitored with reference to the demand both by the Department of Mines, the MMTC and the Energy Ministry. Arising from the increase in demand in 1977-78, imports of aluminium were resorted to from that year. During 1980-81, an year of tremendous scarcity 120,778 tonnes of aluminium was imported. On a query as to how the recession arose in the very next year, the Secretary stated as follows:-

“..... it is interesting to note that whereas the Working Group on Aluminium Demand, the Energy Ministry and everybody else said that the demand would keep on increasing from year to year primarily because of the power programmes, but in the very next year the demand dropped very sharply primarily from the State Electricity Boards..... The fact of the matter is that most of the Electricity Boards are passing through a serious financial crisis and they owe money. They not only are unable to order according to the planned transmission and distribution programmes, but their transmission and distribution programmes, I understand are lagging behind..... the price of aluminium itself has shot up in the last few years that in my opinion there is a consumer resistance which has developed. So, while the demand from the State Electricity Boards has positively dropped substantially, the demand from the other sectors for

the commercial grade aluminium has not shown any increase Since it became evident that the demand would slump, the imports were lashed. But some amount of carry-over imports were inevitable but these were fairly small in quantity in the year 1981-82.

4.29 It was stated by BALCO in a note that it has entered the extrusion market at a relatively late stage in 1980. A new entrant in extrusion field has to set up a fairly well-equipped library of dies in order to meet the tailor-made requirements of actual users. This takes considerable time and consequently, a new entrant trying to penetrate the extrusion market faces considerable problems in the initial stages. When the Committee pointed out that the need for developing suitable dyes for meeting specialised and sophisticated demand for extrusions was emphasised by the Ministry the performance review meeting in July 1981 and desired to know the follow-up action taken by the Company, the CMD, BALCO stated in evidence:-

“In the market, year by year the pattern, the nature of demand, the quality and the various types of products; keep on changing. We would like to enter into the market after finding out what sort of demand is there and then we develop those dyes. If we had developed those dyes in large number earlier, then they could become redundant. We do not want to develop a very big reserve of dies without knowing the market We are building 300 dyes per year depending upon what kind of market demand is there, instead of just building dyes on the basis of past knowledge.”

4.30 The Committee find that the Company is carrying high inventory which has gone up from Rs. 34.70 crores in 1979-80 to Rs. 50.77 crores in 1981-82. The position is particularly bad in regard to process stock and finished goods. While the accumulation of process stock was stated to be due to non-stabilisation of production in fabrication units the stock of finished goods was reported to be high in 1981-82 due to recessionary trend on account of fall in demand from State Electricity Boards. The Committee would stress the need for adopting an aggressive marketing policy and for intensifying efforts by the Company to capture the competitive market for fabricated items.

D. Working Results

4.31 Bharat Aluminium Co. has been continuously suffering losses since it started production. The losses suffered by the Company during the last five years were as follows :—

<i>Year</i>	<i>Loss (Rs. in crores)</i>
1977-78	3.91
1978-79	5.51
1979-80	16.17
1980-81	23.38
1981-82	39.63

The cumulative losses of the Company as on 31.3.1982 were Rs. 107.18 crores against the paid up capital of Rs. 169.26 crores.

4.32 The losses of the Company have to be viewed in the context of pricing policy for aluminium. Aluminium has been under statutory price control since March 1970 under the Aluminium (Control) Order, 1970. The present pricing policy of aluminium is based on a detailed study of the industry conducted by BICP in 1978. Under the present policy, the entire production of aluminium metal is under price control. The fabricated items (extrusions and rolled products) are not covered by the Statutory Price control. Each producer is allowed a retention price which cover the full cost of production and includes a post tax return on net worth based on capacity utilisation. The return increases from 7% at 55% capacity utilisation to 12% at 90% capacity utilisation. As the cost of production varies widely among the producers on account of differences in power tariff rates as well as depreciation and interest, a separate retention price is fixed for each producer. The sale price is fixed at the weighted average of the retention prices. A producer whose retention price is lower than the sale price is required to deposit the difference between the sale price and its retention price in an account called 'Aluminium Regulation Account.' A producer whose retention price is higher than the sale price is entitled to draw the corresponding difference from the account. Since March 1980, a producer is entitled to a return even on a capacity utilisation lower than 55% as it was felt that the low production (as in the case of BALCO) was due to shortage of power.

4.33 BALCO selling price, retention price and the cost of production for Aluminium ingots and Properzi Rods during the last three years was as follows :—

(Rs. per tonne)

	1979-80		1980-81		1981-82	
	Aluminium Ingots	Properzi Rods	Aluminium Ingots	Properzi Rods	Aluminium Ingots	Properzi Rods
Average selling price	8,993	9,563	9,828	10,281	14,083	14,758
Average retention price	11,825	12,250	12,554	12,955	16,580	17,544
Cost of production (including interest and selling expenses)	14,428	14,564	17,941	18,171	22,189	22,593

4.34 The Committee enquired the reasons for higher cost of production and heavy losses when the retention price covered the entire cost of production on a normative basis plus a return on capital based on estimated capacity. The Department of Mines gave the following reasons :—

- (i) In the pricings of October, 1978 and October, 1979, the production of BALCO was estimated at 55,000 tonnes per annum. In the subsequent pricings of March, 1981 and December, 1981, the production was taken to be 50,000 tonnes per annum. BALCO's production fell far short of these estimates as the expected improvement in supply of power by MPEB did not materialise. Consequently whereas BALCO gained by way of a higher percentage of return on the estimated capital employed, it lost heavily on account of lower provision for fixed costs, depreciation and the net fixed assets (which gets reflected in the return). Thus in 1981-82, had BICIP's estimate of production been at the same level as the actual production achieved by BALCO, namely, 34,754 tonnes, its retention price would have been higher by an amount of Rs. 1365/- tonne.
 - (ii) BICP in its 1978 report on aluminium pricing had deducted Rs. 744 in arriving at the retention price of BALCO on the ground that its norms of consumption were higher in some cases than the norms in the industry. The deduction has been carried through in all the subsequent pricings.
 - (iii) Erratic supply of power disturbed the specific consumption of raw materials and power. The excess consumption over the norms permitted by BICP worked out to Rs. 635/- tonne for three of the major inputs viz. power, calcined petroleum coke pitch and aluminium flouride during 1981-82.
 - (iv) There is inevitably a time lag between the increase in cost of inputs and adjustments made in the price of aluminium. Subsequent to revision of retention price on August 6, 1981 the tariff rate of power has gone up to 38.65 paise/unit on February 1, 1982 and to 40.25 paise/unit on September 1, 1982.
- In this connection, a representative of BALCO informed the Committee in evidence that as a result of these increases the direct cost of production of BALCO has gone up by Rs. 1300/- tonnes.
- (v) BALCO has suffered significant losses on its semifabricated products viz. extrusions and rolled products which are not covered by the statutory price control. Whereas the fixed assets for

extrusions and rolled products have been capitalised, the plants have not yet stabilised and the output has been low. The market for these items has suffered a demand recession since 1981-82 and the margin between that price of these items and the raw material viz. aluminium metal has narrowed.

4.35 In reply to another question, the Department of Mines stated that the working capital employed in BALCO during 1981-82 (equivalent to 5.67 months cost of production) was also higher than the BICP norm.

4.36 In regard to delays in revision of retention prices, BALCO stated in a note that amongst the inputs for aluminium production, power was the most significant. The details of dates when power rates have been revised by MPEB from time to time and dates when changes in retention prices of BALCO were given as follows :—

Dates from which MPEB Power rates applicable (effective power rate paise/KWH)	Dates on which retention price introduced/changed
1.7.1975 (12.5)	15.7.1975
1.4.1976 (13.87)	1.12.1977
	16.3.1978
	18.10.1978
1.4.1979 (17.82)	
1.5.1979 (19.61)	
1.8.1979 (21.71)	4.10.1979
1.4.1980 (23.46)	
1.12.1980 (26.11)	
1.1.1981 (27.91)	27.3.1981
1.4.1981 (33.61)	6.8.1981
	3.12.1981
1.2.1982 (38.65)	
1.9.1982 (40.25)	

4.37 The Committee desired to know the procedure followed in regard to revision of retention prices consequent upon increase in the cost of inputs. The Secretary, Department of Mines, informed in evidence as follows :—

“.....So far as electricity price increases are concerned, we carry out the revisions, the Ministry itself has got the power to notify increases in the retention prices immediately. So far as the other major inputs are

concerned, other than power, if there is an increase in the cost of production, then the BICP after examination recommends a change in the retention prices and therefore, in the weighted consumer price; then the case has to be placed before the cabinet for its consideration."

4.38 When the Committee pointed out the time lag between the increases in cost of inputs and the revision of retention prices, the witness agreed that in one particular case even though the BICP report was received in May, 1980 it took considerable time to give effect to the revisions in prices which was done in March 1981. Asked to state the reasons for such time lags, the Secretary stated that before placing before the Cabinet, the Department of Mines has to consult various other Departments of the Government to ascertain their views. In reply to a question whether any proposals for streamlining the procedure were under consideration; the Secretary stated :—

"We do not have presently any proposal under consideration for further streamlining the procedure and further streamlining the procedure will only mean that the Department of Mines will be empowered to decide the retention prices without having to consult the other Departments or having to go to the Cabinet. But I do not think that would be either desirable or acceptable."

4.39 The Committee were also informed that the financial Internal Rate of Return was anticipated at 7% in 1971 for the entire Korba Complex (including Alumina Plant and the Mines) assuming that the smelter would attain production as envisaged. The internal rate of return in 1978 and 1981 on revised cost was 4.05% and 11% respectively.

4.40 On being enquired as to how the financial return was higher in spite of increase in capital cost and additional cost of production, the Secretary, Department of Power stated in evidence :

"Costs had gone up for sometime. Prices of products have also gone up. If you allow for the increase in the prices of the products, then the rate of return increased from 7% to 11%."

4.41 In reply to a question whether the BICP took into account the actual capital cost incurred for the purpose of depreciation and interest charges, the Secretary, Department of Mines, replied in the affirmative and stated that the Department was satisfied with this system of fixing retention prices on the basis of actual cost of the Project.

4.42 The Committee desired to know the economic internal rate of return of the project as per the revised estimate. The Secretary replied :—

“The economic rate of revised estimate of January, 1978 was 12.9 per cent and in the revised estimate of July 1981, 19.8 per cent.”

4.43 On being asked as to how did this compare with the rate of return originally estimated, the witness stated :—

“The practice of calculating economic rate of return was introduced only in 1973 or 1974. Till then it was only financial rate of return.”

4.44 It is distressing to note that the Company has been incurring losses since its inception. Upto March, 1982 the Company had incurred an accumulated loss of Rs. 107-18 crores, whereas its paid up capital is Rs.169.26 crores. The Company's dismal financial performance has been attributed to variety of reasons. Some of the reasons like low capacity utilization, higher consumption of raw materials, etc have been discussed and commented upon earlier in this Report. The Committee are anxious that BALCO should be made soon economically if not financially viable. They would await the actual internal rate of return (economic) reached so far. An analysis in this regard should be made in consultation with the Planning Commission. The Committee would like to know the steps proposed to be taken by Government to make the company viable.

4.45 It has been brought to the notice of the Committee that delay in revision of retention price is also one of the reasons for the losses suffered by the Company. It is seen that there has been considerable time lag between the increase in cost of inputs and the revision of retention prices. The Committee have been informed by the Company that as a result of increase in the rate of power in February and September, 1982 the direct cost of production had gone up by Rs.1300 per tonne. But Government have not raised the retention price after 3rd December, 1981 revision. The Ministry is empowered to notify itself the consequential increase in the retention price on account of increase of electricity prices. The Committee are surprised that the Ministry have not acted promptly in this regard and the revision in retention price after September 1982 increase in power rate, is still pending with them which has resulted in a great loss to the Company. In evidence, the Secretary of the Ministry had informed the Committee that presently there was no proposal under consideration for further streamlining the procedure for the revision of the retention price. The Committee are of the view that some procedure should be evolved so that delay in revising the retention price could be cut down and the Company has no complaint to make in this regard. The Committee desire that this matter should be discussed with all the concerned Ministries immediately and the decision arrived at be intimated to them.

4.46 The Committee also find that the retention price formula provides for interest and depreciation on the basis of actual capital cost. With the increase in capital cost on account of delays in construction etc. the retention price also

goes up. The Committee recommend that in order to provide a built-in incentive for keeping down the capital cost, for new projects whenever there is delay in commissioning, the escalation in capital cost on account of the delay should not be reckoned for the purposes of retention price, except in respect of cost of equipment due to circumstances beyond the control of project authorities as has been done in the case of fertilizer industry.

4.47 The Committee note that since March, 1980 a producer is entitled to a return on net worth even on capacity utilisation lower than 55%. They feel that there should be a sufficiently higher limit of capacity utilisation for an assured return to encourage better capacity utilisation.

CHAPTER-V

GENERAL

A. Management of AJIU

5.1. The Management of Alucoin Jaykanagar Industrial Undertaking (AJIU) which was a private sector unit was taken over by Government on 1.5.1978 under the Industries (Development & Regulation) Act, 1951. The notification under the IDR Act authorised Bharat Aluminium Co. to take-over the management of this undertaking subject to certain terms and conditions for one year which was extended from time to time. Production in the fabrication plants commenced in phases after April, 1979. This unit suffered a loss of Rs.23.65 lakhs, Rs. 42.88 lakhs and Rs. 117.45 lakhs (estimated) during 1979-80, 1980-81 and 1981-82 respectively.

5.2 The Committee desired to know the reasons for delay in commencement of production in AJIU after take over of its management in May, 1978 The Chairman-Managing Director, BALCO stated in evidence as follows:

“From May to September 1978 the plant had to be refurbished. For five months we had to study the whole plant. After that, from October to April, 1979 we had protracted negotiations with the unions. The negotiations were completed on 24 April, 1979. After that we took up the production.”

5.3 When the Committee desired to know the capacity utilisation in the AJIU during the last three years, they were informed through a note that against the installed capacity of 15,800 tonnes for various products, the capacity as assessed before take over was 9,400 tonnes. The actual capacity utilisation during 1980-81 and 1981-82 was 23% and 19% respectively.

5.4 Asked about the constraints in improving the performance of AJIU the CMD, BALCO stated in evidence :

“The main constraint is demand. Our foil plant and extrusion plant are of an old design, 15 to 17 years old. They do not give us the kind of quality we get in the new plant in BALCO. Still, we can achieve the rated capacity, provided there is a market. Today we have got 350 tonnes finished products unsold.”

5.5 When the Committee enquired whether Government had any plan to nationalise AJIU, the Secretary, Department of Mines stated in evidence :

“I can only say that it is under our consideration.”

5.6 Asked whether BALCO has prepared any plan to rehabilitate this unit, the CMD stated that since the matter of nationalisation was under consideration of Government BALCO has given to them the data as to what investments were required to bring this plant to more efficient standards and better quality of production. If money is invested after nationalisation, there would be definite improvement.

5.7 The Management of Alucoin Jaykaynagar Industrial Undertaking which was taken over by Government under the Industries (Development and Regulation) Act 1951 was handed over to BALCO in May 1978. Even after its taking over the performance of the unit has not been satisfactory. The capacity utilisation during the last two years (1980-82) was barely 23% and 19% of the capacity assessed at the time of taking over. It has suffered a loss of Rs. 183.98 lakhs during 1979-82. The poor performance was stated to be mainly due to the plant being very old. The Committee find that even after more than four years of taking over the unit no decision has yet been taken for its nationalisation. They desire that an early decision be taken in this regard. They also feel that to make the plant economically viable immediate measures are necessary for its rehabilitation and modernisation.

B. Ratnagiri Project

5.8 Bharat Aluminium Co. Ltd was set up with the objective of setting up two integrated aluminium projects one at Ratnagiri and another at Korba. The Committee desired to know the reasons for not taking up the Ratnagiri Project for implementation. The company informed in a note that it concluded an agreement in January 1966 with M/s VAW of West Germany for technical assistance for establishment of 50,000 tpa aluminium plant in Maharashtra. In April, 1966 VAW was authorised to prepare a DPR for the Ratnagiri Complex. The DPR was received in July 1966. The amount of Rs. 15.51 lakhs was paid to the consultants. The cost of project on the basis of this DPR and further discussion with VAW, was estimated to be Rs. 73.43 crores including the township. The agreement between BALCO and VAW provided for a 3 months limit (later extended to 4 months) for acceptance of DPR. The acceptance of the report by Government however, took some time as certain points arose regarding maximisation of use of Indian equipment and services.

5.9 In a meeting held in November 1967 which was attended by the representatives of the Ministries of Mines & Metals and Finance, the Plan-

ning Commission, NIDC and the Company, it was also considered that the foreign exchange component of Rs. 18 crores for the project was very high and this could be reduced by greater use of indigenous know how and equipment.

5.10 Subsequently after a review by Government, offers were again invited for technical assistance for the project from VAW, Chemokomplex of Hungary and USSR as also the Indian producers. In August, 1969 a consultancy agreement was signed with a Hungarian firm M/s. Chemokomplex already acting as consultants for the Korba project providing among other things for furnishing technical data required for a DPR and for detailed engineering of the project, supervision of erection and commissioning etc., on a total payment of Rs. 85 lakhs, to be paid in instalments as per agreement. Simultaneously, an agreement was signed in December 1969 with the National Industrial Development Corporation Limited, (NIDC), a Government Company, for preparation of the detailed project report.

5.11 On the basis of technical data furnished by M/s Chemokomplex NIDC prepared a detailed project report for the Mining Establishment in October 1970, for an Alumina, Plant in September 1971, and a Smelter Plant in January 1971. The estimated capital outlay on the project was Rs. 64.98 crores. Government finally approved the project in April 1974 at a revised cost of Rs. 78.82 crores (including Rs. 8.57 crores in foreign exchange).

5.12 M/s. Chemokomplex was paid Rs. 25.45 lakhs (up to June 1972) Marking the first stage of payment. However, as the project had not been cleared by the Government of India till April 1974, the Company did not establish the bank guarantee for further payment of Rs. 59.55 lakhs by 31st May 1973 which was the stipulated last date for the purpose. The consultancy fees paid to NIDC was Rs. 29.24 lakhs.

5.13 A provision of Rs. 15 crores was made for this project in the Fifth Plan document. Because of financial constraints and higher priorities of other sectors, the actual provision for this project from the year 1974-75 to 1981-82 was only Rs. 1.88 crores. With the limitation of funds, priority was given to completion of the Korba Complex.

5.14 At the time of consideration of the 6th plan proposals, the Ratnagiri Project did not find favour with the Planning Commission who were of the view that with the long passage of time since the proposal was mooted, the proposed technology required to be updated, and the proposed size of the plant also required to be re-assessed. The review showed that the project would not be economically viable unless size of the plant was scaled up, and a more modern technology which saved in energy consumption was

adopted. It was, therefore, decided to conduct further explorations in the area with a view to establishing additional resources of bauxite required to sustain a larger alumina plant. MEC has undertaken the detailed exploration which is expected to be completed in 39 months. Depending on the results of the exploration and availability of adequate power, an investment decision will be taken on the proposed project.

5.15 The expenditure incurred on the project upto 31.3.1982 was as follows :

	<i>Rupees in Lakhs</i>
(a) consultancy charges paid to M/s. VAW	15.51
(b) consultancy fees paid to M/s. Chemokomplex	25.45
(c) consultancy fees paid to N.I.D.C.	29.24
(d) land acquisition cost	20.00
(e) survey and prospecting of mines	23.74
(f) dead rent on mines taken on 30 years lease (yet to be paid)	4.41
(g) staff and contingencies	62.06
(h) temporary works	3.78
(i) feasibility study-slurry Pipeline System	2.34
(j) Gross fixed assets	2.09
TOTAL	188.62

5.16 On being enquired whether the Company was still incurring any expenditure, the CMD, BALCO replied :

"It is now less than Rs. 2 lakhs per annum. Since there was no clear-cut decision about Ratnagiri project, we had to keep some establishment there to coordinate with the State Government Department on various things.....We are reducing it. We are offering the staff at other places."

5.17 The setting up of Ratnagiri Aluminium Plant has been under consideration of Government since 1966. The Project was ultimately sanctioned in 1974 after having detailed project reports prepared both by foreign and Indian consultants at a cost of Rs. 70.20 lakhs. Against the estimated cost of Rs. 78.82 crores a provision of Rs. 15 crores was made in the 5th Five Year Plan for the project. The actual budget provision from the year 1974-75 to 1981-82 was however, only Rs. 1.82 crores which was stated mainly due to financial constraints. According to the Ministry an investment decision on this

project would be taken depending upon the results of the detailed exploration being conducted by Mineral Exploration Corporation with a view to establishing additional sources of bauxite required to sustain larger plant. An expenditure of Rs. 188.62 lakhs has been incurred on the project upto and of 1981-82 out of which Rs. 136.67 lakhs was spent on the preparation of DPRs, staff and contingencies, dead rent on mines etc.

5.18 The Committee would invite attention in this connection to the recommendation contained in the 10th Report of the Committee on Petitions (7th Lok Sabha) wherein they have suggested that even if it is not possible to establish at Ratnagiri as big a plant as on the East coast, Government should have a medium sized plant so that the economic backwardness of the people of the area is ameliorated. The Committee desire that the decision in regard to project should be expedited.

C. Location of Head Office

5.19 The Company has at present only one project operating at Korba. But the Head Office of the Company is in Delhi. In this connection the Committee were informed that when the Head Office was established in Delhi in 1965, two projects were envisaged, one at Ratnagiri in Maharashtra and another at Korba in Madhya Pradesh. The Head office of the Company was fixed at Delhi to facilitate planning for the two projects.

5.20 The Committee desired to know whether, in view of the fact that Ratnagiri Project did not make any progress, the question of shifting the Head office of the Company was ever considered. The Secretary, Department of Mines, informed in evidence that it was felt to keep the office here to maintain coordination. Besides, due to constraint of resources, the Finance Ministry advised that BALCO should not be shifted outside Delhi. Subsequently, it was decided by Government, by the Cabinet Committee to shift it from Delhi and in pursuance of that decision Nagpur was considered as a possible site. But the only plant of BALCO being in Madhya Pradesh, the Chief Minister state that the Head Office of the company should be in that State. In November, 1981, the matter was discussed by the Secretary of the Ministry with State Government and three requirements were indicated to them viz. immediate rented accommodation, accommodation for staff and land for construction. No reply was however, received from the State Government. In the meantime BALCO indicated that with the development of Gandhamardan Mines, it would be better to shift to Raipur where about 400 to 500 acres of land was available. While Government are agreeable to the proposal of the Company they want to get a survey done.

5.21 Asked to state the reasons for not shifting the Head Office to Korba itself, the Secretary stated that it was felt that the Chairman and Managing Director should be away from the factory site. Secondly Korba

is badly served in the matter of communications. This Company should have excellent communication with the rest of the country, particularly when it is going to compete in the marketing of the products with other producers.

5.22 The Committee are surprised to note that although the only project of BALCO operating at present is at Korba in Madhya Pradesh. The Head Office of the Company continues to be in Delhi. In spite of the fact that the decision had been taken by the Government to shift the Head Office from Delhi, it has not yet been implemented. They would invite attention in this connection to their recommendation in Tenth Report (1977-78) which had been accepted by Government wherein they had pointed out that with the development of rapid means of communication like telephones, teleprinters etc. there is no reason why the head offices of the Public Undertakings should continue to be located in the metropolitan cities. The concentration of the head offices of the Public Undertakings in these cities has resulted in creating severe overcrowding and scarcity in the availability not only of office accommodation but also residential accommodation and sharp rise in the rental charges of both office and residential accommodation, causing distress and hardship to a large number of people residing in these cities. The Committee feel that interests of the Company would be better served if its head office is close to the manufacturing unit, and it would also help to have close liaison with the State Government.

D. Holding of Annual General Meetings

5.23 According to Section 171(1) of the Companies Act, 1956, a notice of not less than twenty-one days is required to be given in writing for holding an annual general meeting. The dates of issue of notice and the dates of Annual General Meetings of BALCO during the last five years were as follows :—

Year	Date of issue of Notice	Date of A.G.M.
1977-78	9.10.1978	12.10.1978
1978-79	28.9.1979	28.9.1979
1979-80	18.9.1980	22.9.1980
1980-81	29.9.1981	29.9.1981
1981-82	24.9.1982	30.9.1982

5.24 Asked to state the reasons for holding the annual general meeting for 1977-78 after 30 September, 1978, the Company stated in a note that the dislocation of rail traffic following floods delayed Audit party reaching Korba, which led to delay in finalisation of accounts.

5.25 When the Committee enquired the reasons for holding the annual general meetings at a very short notice, sometimes on the day of issue of notice itself, they were informed by the Company in a note furnished after

evidence that in a Government Company in addition to the audit of the accounts by the Statutory Auditors appointed by the Government the accounts are also required to be audited by the commercial audit under section 619 of the Companies Act. The clearance of the accounts from the Directors of Commercial Audit is a necessary requirement before the accounts are taken up for consideration and adoption by the Company in General Meeting. On account of delay in completion of all formalities required before the accounts are put up for consideration and adoption at the annual general meeting, the meetings are held at a shorter notice. However, efforts will be made to ensure that the meetings are held after giving the required notice under section 171 of the Companies Act.

5.26 The Committee hope that in future the Annual General Meetings would be held in time and after giving the notice as required under the Companies Act.

NEW DELHI;
April 21, 1983

Vaisakha 1, 1905 (S)

MADHUSUDAN VAIRALE,
Chairman,
Committee on Public Undertakings.

APPENDIX

STATEMENT OF CONCLUSIONS/RECOMMENDATIONS OF THE COMMITTEE ON PUBLIC UNDERTAKINGS CONTAINED IN THE REPORT

Sl. No.	Reference to Para No. in the Report	Statement of Conclusions/Recommendations
(1)	(2)	(3)
1	1.13	Bharat Aluminium Co. Ltd. was set up in 1965. Its objectives and obligations have not yet been finalised by the administrative Ministry. The Company also does not have a corporate plan. The Committee have been informed that the task of drawing up the corporate plan has now been entrusted to an expert organisation which was to submit the report in February 1983, after which the micro objectives of the Company would also be finalised. The Committee wonder now without settling first micro objectives of the Company, its corporate plan could be prepared. Anyhow, the Committee hope that as assured by the Secretary of the Ministry during evidence the micro objectives of the Company would be finalised soon. The Committee need hardly stress that to make a periodical meaningful evaluation of the performance of the Company it is necessary that it should have well defined and clearly stated financial and economic objectives.
2	1.14	The Committee would also suggest that targets as desired by them in Para 5 of their 49th Report should be fixed both annually and for the plan period, in consultation with the Planning Commission. These targets and achievements should also be clearly brought out in the Annual Report of the undertaking with an explanation for the shortfalls, if any.
3	2.20	The Korba Aluminium Project comprises Captive Bauxite Mines in Phutkapahar and Amarkantak areas, Alumina Plant, Smelter and Fabrication facilities. The Committee are unhappy to note that there was great over-estimation of bauxite deposits of

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the captive mines. The Geological Survey of India (GSI) had originally (in 1961-63) estimated 11.15 million tonnes bauxite reserves in these areas. After 1967 when Government has taken an investment decision GSI again reported that additional reserves of 11.63 million tonnes would be available in Amarkantak. Thus GSI had estimated total reserves of 22.78 million tonnes bauxite from the two areas with silica content ranging from 3.75 to 6.43 per cent. These reserves were considered sufficient for more than 30 years. Afterwards when BALCO carried out the exploration it found that the useable reserves were 4.38 million tonnes i.e. only 19% of that assessed by GSI. The incorrect assessment in regard to the nature of deposits increased the cost of raising ore. The Committee regret that Government decided to make huge investment in the Alumina Plant without having a reliable data about the quantity and quality of useable reserves of bauxite from Phutkapahar and Amarkantak areas.

4 2.21

The Committee also find that the Company had been doing selective mining of ore in Phutkapahar and Amarkantak areas having lower silica content than that which could be used within the designed parameters of the plant. The Committee are afraid that such a practice will not only reduce the useable reserves of bauxite but would also result in wastage of national wealth. They expect the Ministry/Company to ensure that selective mining does not continue and there is production of bauxite with regard to alumina and silica content upto the acceptable limits of tolerance of the plant.

5 2.22

In view of the fact that the present ore reserves from the captive mines are expected to last only for 3-4 years, the Company is now developing Gandhamardan bauxite deposit in Orissa to meet its long term need of bauxite. Bauxite reserves in this area are estimated to be about 200 million tonnes. However, the area being explored by BALCO is estimated to have mineable reserves of 26 million tonnes sufficient to cater to the bauxite requirement of the Korba Aluminium

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Plant for a period of more than 40 years. The estimated expenditure on the development of Gandhamardan Mines is Rs. 31.2 crores, as sanctioned by Government on 26 July, 1982. The Committee note that there has been delay in the development of Gandhamardan Mines. The NMDC who was engaged to report on short and long term mining schemes for supply of bauxite to the Korba Aluminium Plant had in its report submitted in February, 1979, suggested that the construction of Gandhamardan mine should be completed in 1982-83 and production started in 1983-84. However, after 11 months of NMDC's Report, Government entrusted (in January, 1980) details exploration to MECON, who gave their report in February, 1981. It was only on 26 July, 1982 (after 17 months) that Government could take an investment decision. Actual production in Gandhamardan is likely to start after April, 1985. In the meantime the Committee find that the Company has been purchasing bauxite from outside sources to conserve its reserves. The Committee regret that Ministry had taken more than 3 years to sanction implementation of the project. They, however, hope that the Ministry/Company will ensure that bauxite from the Gandhamardan mine becomes available in time as per the requirements of the Aluminium Plant to avoid any shortfall in production.

6 2.55

The Committee are surprised to note that there has been no synchronisation in the setting up of different units. The alumina plant having a capacity of 2 lakh tonnes per annum was ready by April, 1973. However on account of inordinate delay in taking investment decision in regard to smelter and fabrication facilities, the first phase of smelter was completed only in May 1975, i.e. after two years of the completion of the alumina plant. Thus the plant set up in April 1973 at a cost of Rs. 38.72 crores had remained largely unutilised till May 1975. What is worse, as there was no internal requirement or external outlet for alumina, performance guarantee tests on the second stream of

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the alumina plant to prove its rated capacity were not carried out. Subsequently when the plant was fully commissioned it was noticed that there were several deficiencies, and the plant was capable of producing only upto 75% of its rated capacity. A revamping scheme undertaken by the Company to reach the original capacity was estimated to cost Rs. 6.50 crores. No part of it could be recovered from the consultants as the guarantee period had in the meantime expired. The Committee need hardly point out that this state of affairs could have been avoided had Government not taken six years for taking investment decision after Cabinet Committee has decided in 1965 to go in for smelter of one lakh tonne per annum. Surprisingly the Ministry *inter-alia* took about 13 months in finding out whether indigenous expertise was available, which was not there and over a year in issuing sanction after the receipt of DPR. The Committee take a serious view of such inordinate delays in decision making.

7 2.56

Another aspect which causes concern is the inadequate provision for liquidated damages in the contracts entered into with the consultants. In spite of the fact that an expenditure of Rs. 6.50 crores would have to be incurred on revamping scheme to attain the original capacity of 2 lakh tonnes of the alumina plant, the Secretary of the Ministry informed in evidence that even if the plant had been run within the performance guarantee period, the maximum penalty that could have been collected from the consultants was Rs. 6 lakhs. The Committee would invite attention in this connection to the guidelines issued by BPE in 1977 in regard to entering into foreign collaboration agreements by public enterprises and would stress that at least in future the liquidated damages should have a relationship to the loss in terms of value to which the undertaking may be put on account of failure of the consultants.

8 2.57

There has also been delay in the implementation of the revamping scheme. Although the Hungarian Consultants had submitted their report in January 1977 containing proposals for revamping the plant to ensure

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its performance at rated capacity of 2 lakh tonnes per annum it was not before June 1980 i.e. after 40 months of the receipt of the Report that Government finally accorded approval to the scheme costing Rs. 4.71 crores. Even thereafter it was found that there was under-estimation of the cost of the project and the estimates have now been revised to Rs. 6.50 crores. The main reason for the delay was the decision taken by the Board increase the capacity of the plant by 10% which was ultimately cancelled. Considering the fact that the capacity of the plant had been decided at Government level keeping in view the capacity of the smelter, the Committee are unable to appreciate the decision of the Board which caused considerable time and cost over-run in the implementation of the scheme.

9. 2.58 & 2.59

There have also been inordinate delays ranging from 7 months to 83 months as compared to the original schedule in completion/commissioning of the different units of smelter and fabrication facilities. Even after mechanical completion there was delay ranging from 2 to 17 months in commissioning the units. Some of the units have not yet been commissioned. While the two pot lines of smelter were commissioned by September, 1977 after a delay of 33 months, the matching fabrication facilities were not ready with the result that the limited production of ingots could not be converted fully into the finished products resulting in less sales realisations.

Although at one stage the construction had to be slowed down in view of constraints of resources and power, the Committee find that this meant rescheduling of the commissioning of the units from 1975-76 to 1977-78. Even after re-scheduling delays up to five years have taken place in construction and commissioning. There has been an escalation in capital cost of Smelter and fabrication facilities of the order of Rs. 131.10 crores i.e. 87% over the original estimates. Out of it the escalation in cost on account of delays in construction was of the order of Rs. 105 crores and the cost of

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production of metal went up by Rs. 1250 per tonne which would have to be ultimately borne by the consumers. Further, in regard to rolled products and extrusions which are not covered by the retention price system it has been estimated that even on full capacity utilisation, the Company would not be able to break even at the current level of prices. The Committee feel that these are unhappy state of affairs. The Company has neither been able to maintain the original schedules nor the revised. They feel it is a fit case for detailed examination by Government to identify the factors which caused delays in implementation of the projects and for evolving suitable remedial measures to avoid heavy time and cost over-runs in future.

10. 3.26

The Committee note that during the period 1979 to 1982 capacity utilisation of the Aluminium Smelter has ranged from 29% to 35%. The Company has failed to achieve even the targets fixed each year. The value of loss of production on account of shortfall in production with reference to installed capacity during 1976-82 amounted to about Rs. 290 crores. During 1977-82, aluminium valued at about Rs. 336 crores was imported to meet the gap between increasing demand and production in the country. The Committee feel that the imports could have been largely avoided had the company been able to fully utilise its installed capacity.

11. 3.27

The main reason for the shortfall in production is stated to be non-availability of adequate and stable power supply from Madhya Pradesh Electricity Board. The Committee are distressed to find that in spite of the fact that the State Government of Madhya Pradesh had formally committed in 1968 to supply the required quantity of 265 MW of power to the aluminium project, the actual average power supply has ranged between 69 MW to 84 MW during 1977-82. With the result that two potlines (50% of the capacity) could not be commissioned at all and the power supplied was not adequate even to operate the remaining two potlines to their full capacity. The chronology of events in the earlier paras

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indicate that though the Company had been assured of power supply from time to time, when its units were ready for commissioning power was not made available. It is surprising that having set up a plant with all the necessary surveys etc. indicating immediate and future power requirements of the Company and the power available and likely to be available in the area, and after such a huge investment (more than Rs. 315 crores) all the concerned authorities are helpless in providing power to the Company to meet even its basic requirements. The Committee have found that most of the enterprises are suffering on account of inadequate and irregular power supply. They would like the Central Government to take up the issue at the highest level with the concerned State Governments and make them fully aware of their obligation to supply adequate and regular power to the public undertakings set up in their States.

12 3.28

The Committee are also surprised at the helplessness expressed by the Ministry of Energy in making available any additional power to the Company in spite of the fact that substantial funds have been sanctioned by the Planning Commission from time to time for creating new power generation capacity in M.P. to meet BALCO's demands on long term basis. The Korba Super Thermal Power Station, being set up by the NTPC at a distance of hardly 5 miles from the aluminium plant, does not give any ray of hope to the Company. According to the Ministry while the generation of power in the Central Sector is now accepted as a policy, the distribution continues to be with State Governments and they had no control over it. The Committee desire that the matter deserves serious consideration to find a satisfactory solution to this problem.

13 3.29

In spite of the fact that as early as 1974-75, it became clear that there was no possibility of getting power for II, III and IV phases of smelter till the end of 1976-77 and the Department of Mines took up the proposal for setting up the captive power plant in

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April, 1975, this was not agreed to by the Department of power. It was not before 1982 that the justification for the captive power plant was realised and a plant of the capacity of 270 MW was sanctioned. The failure to take timely decision in regard to captive power plant has cost heavily in terms of production loss. The Company has already lost production worth about Rs. 378 crores upto 1982-83 as against the estimated cost of Rs. 285 crores for the captive power plant and the production loss was estimated to go up to Rs. 646 crores by the time the power plant comes up in 1986-87 assuming the current average selling prices of aluminium metal fixed by Government. Strangely enough adequate funds have not yet been made available to take up the work in 1983-84. The Committee would urge that there should be no further delay in setting up the captive power plant for BALCO and the required funds should be made available as early as possible so that construction of the Plant could be taken up in time.

The Committee find that 15% of the power produced by super thermal power plant of N.T.P.C. at Korba has been set apart for allocation by the Centre. They desire that out of this quota, power should be made available to BALCO for meeting their immediate requirements till the captive power plant comes up.

14 3.41

The Committee find that as against the installed capacity of 35,000 tonnes, the actual production of properzi rods in 1981-82 was only 13,403 tonnes. This was stated to be due to lower production of EC grade metal on account of contamination of imported calcined petroleum coke, resulting in a loss of about Rs. 3 lakhs to the Company. The material is stated to have been subject to contamination owing to storage in the open area near the wharf. The Committee regret that in spite of the fact that in the quarterly performance review meeting held in March 1982, the Ministry had asked the Company that the matter should be examined and responsibility fixed, no such responsibility was fixed. It is only now, after the matter was taken up by the Committee, that further investigation in depth has

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been ordered with a view to identifying specific sources of lapses in handling, storage and transport of the material. The Committee desire that the investigation should be expedited.

15 4.22

The cost of production of various products has been higher than the standard and budgeted costs during the last three years. This has been stated to be mainly due to gross under-utilisation of capacities on account of inadequate availability of power. Higher consumption of inputs as compared to D.P.R. norms as well as the norms fixed by B.I.C.P. for the purpose of retention price has also contributed to higher cost of production. The excess consumption of some of the main inputs as compared to B.I.C.P. norms resulted in higher cost of production to the extent of Rs.635/-per tonne in 1981-82. This calls for greater control over the consumption of materials. The power consumption in terms of KWH per tonne of metal was also much higher (17560) than the norms (16020). This has been attributed to erratic nature of power supply. The Committee however, feel that there is scope for reduction in energy consumption in the smelter through adoption of modern control techniques.

16 4.23

The labour productivity was also much lower than the D.P.R. norm in the mines and alumina plant. This was due to the fact that in spite of low production, number of persons employed was even more than that provided in the D.P.R. The Committee regret to note the failure to make phased recruitment as per the requirements resulting in higher labour cost. They hope that steps would be taken for better utilisation of manpower.

17 4.30

The Committee find that the Company is carrying high inventory which has gone up from Rs. 34.70 crores in 1979-80 to Rs. 50.77 crores in 1981-82. The position is particularly bad in regard to process stock and finished goods. While the accumulation of process stock was stated to be due to non-stabilisation of production in fabrication in fabrication units, the stock of finished goods was reported to be high in 1981-82 due to recessi-

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onary trend on account of fall in demand from State Electricity Boards. The Committee would stress the need for adopting an aggressive marketing policy and for intensifying efforts by the Company to capture the competitive market for fabricated items.

18 4.44

It is distressing to note that the Company has been incurring losses since its inception. Upto March, 1982 the Company had incurred an accumulated loss of Rs.107-18 crores, whereas its paid up capital is Rs.169.26 crores. The Company's dismal financial performance has been attributed to variety of reasons. Some of the reasons like low capacity utilization, higher consumption of raw materials, etc. have been discussed and commented upon earlier in this Report. The Committee are anxious that BALCO should be made soon economically if not financially viable. They would await the actual internal rate of return (economic) reached so far. An analysis in this regard should be made in consultation with the Planning Commission. The Committee would like to know the steps proposed to be taken by Government to make the company viable.

19 4.45

It has been brought to the notice of the Committee that delay in revision of retention price is also one of the reasons for the losses suffered by the Company. It is seen that there has been considerable time lag between the increase in cost of inputs and the revision of retention prices. The Committee have been informed by the the Company that as a result of increase in the rate of power in February and September, 1982 the direct cost of production had gone up by Rs. 1300 per tonne. But Government have not raised the retention price after 3rd December, 1981 revision. The Ministry is empowered to notify itself the consequential increase in the reention price on account of increase of electricity prices. The Committee are surprised that the Ministry have not acted promptly in this regard and the revision in retention price after September 1982 increase in power rate, is still pending with them which has resulted in a great loss to the Company. In evidence, the Secretary of the Ministry had informed the Committee

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that presently there was no proposal under consideration for further streamlining the procedure for the revision of the retention price. The Committee are of the view that some procedure should be evolved so that delay in revising the retention price could be cut down and the Company has no complaint to make in this regard. The Committee desire that this matter should be discussed with all the concerned Ministries immediately and the decision arrived at be intimated to them.

20 4.46

The Committee also find that the retention price formula provides for interest and depreciation on the basis of actual capital cost. With the increase in capital cost on account of delays in construction etc. the retention price also goes up. The Committee recommend that in order to provide a built-in incentive for keeping down the capital cost, for new projects whenever there is delay in commissioning, the escalation in capital cost on account of the delay should not be reckoned for the purposes of retention price, except in respect of cost of equipment due to circumstances beyond the control of project authorities as has been done in the case of fertilizer industry.

21 4.47

The Committee note that since March, 1980 a producer is entitled to a return on net worth even on capacity utilisation lower than 55%. They feel that there should be a sufficiently higher limit of capacity utilisation for an assured return to encourage better capacity utilisation.

22 5.7

The Management of Alucoin Jaykaynagar Industrial Undertaking which was taken over by Government under the Industries (Development and Regulation) Act 1951 was handed over to BALCO in May 1978. Even after its taking over the performance of the units has not been satisfactory. The capacity utilisation during the last two years (1980-82) was barely 23% and 19% of the capacity assessed at the time of taking over. It has suffered a loss of Rs. 1883.98 lakhs during 1979-82. The poor performance was stated to be mainly due to the

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plant being very old. The Committee find that even after more than four years of taking over the unit no decision has yet been taken for its nationalisation. They desire that an early decision be taken in this regard. They also feel that to make the plant economically viable immediate measures are necessary for its rehabilitation and modernisation.

23 5.17
& 5.18

The setting up of Ratnagiri Aluminium Plant has been under consideration of Government since 1966. The Project was ultimately sanctioned in 1974 after having detailed project reports prepared both by foreign and Indian consultants at a cost of Rs. 70.20 lakhs. Against the estimated cost of Rs. 78.82 crores a provision of Rs. 15 crores was made in the 5th Five Year Plan for the project. The actual budget provision from the year 1974-75 to 1981-82 was, however, only Rs. 1.82 crores which was stated mainly due to financial constraints. According to the Ministry an investment decision on this project would be taken depending upon the results of the detailed exploration being conducted by Mineral Exploration Corporation with a view to establishing additional sources of bauxite required to sustain larger plant. An expenditure of Rs. 188.62 lakhs has been incurred on the project upto and of 1981-82 out of which Rs. 136.67 lakhs was spent on the preparation of DPRs, staff and contingencies, dead rent on mines etc.

The Committee would invite attention in this connection to the recommendation contained in the 10th Report of the Committee on Petitions (7th Lok Sabha) wherein they have suggested that even if it is not possible to establish at Ratnagiri as big a plant as on the East coast, Government should have a medium sized plant so that the economic backwardness of the people of the area is ameliorated. Committee desire that the decision in regard to the project should be expedited.

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is at Korba in Madhya Pradesh the Head Office of the Company continues to be in Delhi. In spite of the fact that the decision had been taken by the Government to shift the Head Office from Delhi, it has not yet been implemented. They would invite attention in this connection to their recommendation in Tenth Report (1977-78) which had been accepted by Government wherein they had pointed out that with the development of rapid means of communication like telephones, teleprinters etc. there is no reason why the head offices of the Public Undertakings should continue to be located in the metropolitan cities. The concentration of the capital offices of the Public Undertakings in these cities resulted in creating severe overcrowding and scarcity and the availability not only of office accommodation but also residential accommodation and sharp rise in the rental charges of both office and residential accommodation, causing distress and hardship to a large number of people residing in these cities. The Committee feel that interests of the Company would be better served if its head office is close to the manufacturing unit, and it would also help to have close liaison with the State Government.

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The Committee hope that in future the Annual General Meetings would be held in time and after giving the notice as required under the Companies Act.

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Published under Rule 382 of the Rules of Procedure and Conduct of
Business in Lok Sabha (Sixth Edition) and Printed at S. Narayan & Sons,
7117/18, Pahari Dhiraj, Delhi-110006.
