# **NOTICE**

Notice is hereby is given that the 10<sup>th</sup> Annual General Meeting of the Shareholders of National Aluminium Company Limited will be held at the Registered Office of the company at IDCO Towers, Bhubaneswar at 12.30 hrs. on Monday 30<sup>th</sup> September 1991 to transact the following business:

To consider and adopt the audited Balance Sheet and the Profit and Loss Account for the year ended 31<sup>st</sup> March 1991, the Report of the Directors, Auditors and the comments of the Comptroller & Auditor General of India thereon.

By order of the Board

Bhubaneswar 2<sup>nd</sup> September 1991.

(NS Parameswaran) Company Secretary

Note: A member of the Company entitled to attain and vote at the meeting is entitled to appoint a proxy to attend and vote instead of himself and the proxy need not be a member of the Company.

To: 1. All Shareholders.

2. Tej Raj & Pal,

Chartered Accountants, 1, Kalpana Square,

Bhubaneswar - 751014

# 01. Directors' Report.

# 02. Annexures to the Directors' Report.

- A. Information U/S 217(2A)
- B. Statement of Particulars under the Companies (Disclosures of Particulars in the report of Board of Directors) Rules, 1988
- C. Review of Accounts by C&AG

# **Director's Report**

To The Shareholders, National Aluminium Co. Ltd., Bhubaneswar.

Gentlemen,

Your Directors are pleased to present the Tenth Annual Report and audited accounts of the Company for the financial year ended 31<sup>st</sup> March 1991. The review of the accounts of the Company by the Comptroller & Auditor General of India in terms of Section 619(4) of the Companies Act, 1956 for the year is annexed as part of this report.

#### 1.0 PRODUCTION PERFORMANCE

On 7<sup>th</sup> January 1991, your Company completed the first decade of its existence. The period witnessed another rewarding year for the Company in terms of production, sales, resource generation and foreign exchange earnings despite two major setbacks like a major fire accident in the CPP in March 1990, a devastating Cyclone in May '90 resulting in suspension of production in the Alumina Refinery for nearly six weeks due to disruption of rail links in the Koraput district of Orissa and the East Coast of India.

#### 1.1 Bauxite

At Panchpatmali hills, the production of metal grade bauxite reached the mines rated capacity of 2.40 mln. tpy. Mines safety was maintained at the highest level and loss due to injury was minimum. The equipments continue to be maintained in good condition.

#### 1.2 Alumina

The demand for alumina is intimately related to production of aluminium. Production at the Refinery at Damanjodi which is the largest in Asia, continue to show good results. In view of the overall present surplus in the world alumina production the short sport alumina prices are on the decline. Due to expected narrowing down of the gap between supply and demand from the year 1993, medium prices/long term prices are expected to improve.

## 1.3 Aluminium

International prices for primary aluminium metal remained low during the major part of the year and owing to the Gulf war and general depression in the world economy no significant improvement in the price levels is expected owing to the surplus availability of the metal. The plant operation during the year was satisfactory and the Company could attain the target for the year, despite unfavourable circumstances of a major fire accident in conveyor system in CPP resulting in closure of Pot line-I with 240 pots of Smelter Plant for a period of 45 days, and complete disruption of rail link between Koraput-Kotavalsa (KK line) due to cyclone in Andhra Pradesh in May '90 resulting in suspension of Alumina production for about six weeks. Difficulties were also caused several times by work force which had an impact on the working of the Smelter. These major set backs forced the Company to scale down the original targets set in March 90. Improvement in work practice can contribute to a significant measure to productivity and provide the Company an edge in competition to others in the domestic and international markets. Special training programmes are on hand to improve the skills

and work culture. In order to ensure full and reliable power supply, steps are being taken for installation and commissioning of the VIth power unit.

**1.4** The performance of the Company is indicated below:

Production	1990-91	1989-90
Bauxite (T) Alumina (T) Aluminium (T)	19,20,000 6,52,485 1,51,330	22,30,040 7,39,000 1,35,018
Sales		
Alumina export (T) Aluminium export (T) Aluminium domestic (T) Foreign exchange earned (Rs. crores) Sales Turnover (Rs. crores)	3,28,782 27,877 1,28,813 277.89* 884.00	4,48,554 27,391 98,843 409.32 846.01

<sup>\*</sup> Includes export value of trial production

#### 2.0 FINANCIAL HIGHLIGHTS

**2.1** The Company has registered profit for the third successive year after commencement of commercial production during 1987-88. The operating results for the financial year ended 31<sup>st</sup> March '91 showed a profit of Rs. 80 crores against Rs. 172.03 crores of the previous year and a cash surplus of Rs. 294 crores against Rs. 343 crores of previous year.

The financial highlights are summarised below:

(Rs. Crores)

		1990-91	1989-90
1.	Sales Indigenous Export	606 278 (US\$ 154 mln) 884	441 405 (US\$ 244 mln) 846
2.	Other income including accretion of	stock 73	88
3.	Total Income	957	934
4.	Manufacturing expenses	386	342
5.	Excise Duty	131	90
6.	Selling and Distribution Expenses	13	12
7.	Interest and Financing Charges	184	178
8.	Depreciation	163	140
9.	Total	877	762
10.	Net profit for the year	80	172
11.	Cash Surplus	294	343

**2.2** Though the international prices of aluminium metal and alumina during the year were depressed, the total sales increased during the year by Rs. 38 crores mainly because of higher production of aluminium metal in the Smelter and higher realisation in terms of rupees due to depreciation of Rupee against US Dollar. The Company realised an average price of \$ 1727/t against the LME average of \$ 1637/t for the aluminum metal exported during 1990-91

During the year the expenditure on publicity and exhibition was Rs. 41.41 lakhs (Rs. 37.14 lakhs previous year) and expenditure on entertainment was Rs. 4.63 lakhs (previous year Rs. 4.25 lakhs).

#### 2.3 Share Capital

As on March 31, 1991 the Authorised Capital of the Company is Rs. 1300 Crores. The paid-up capital of Rs. 1288.62 crores is wholly contributed by the Government of India. The capital expenditure on installation of VIth Unit of Captive Power Plant, Billet Casting Facilities at Smelter etc. is financed by the Company from its internal resources.

#### 2.4 Euro-Dollar Loans

The project cost was financed through two foreign currency commercial loans totaling US\$ 980 million, French Credit of FF 1050 mln. and the balance by equity contribution by the Government of India. The Company met its loan repayment and interest payment obligations during the year on due dates. In terms of US Dollars the loan outstanding is US\$ 903.00 mln as on 31.3.91 as against U.S.\$ 977 mln as on 31.3.90. In view of the depreciation of Rupee against other foreign currencies, though the loan outstanding in terms of US dollar has reduced as on 31.3.91 but in Rupee terms the liability increased to Rs. 1793.69 crores at the end of 1990-91 against Rs. 1688.61 crores at the end of 1989-90.

**2.4.1** The Reserve Bank of India announced re-adjustment of Rupee parity rates with major foreign currencies in the first week of July 1991. The exchange rates announced by RBI indicated depreciation of Rupee by about 33% between April'91-July'91. The external loans outstanding as on July'91 amounted to US\$ 876 Million. As compared to the outstanding Rupee liability of external loans as on 31<sup>st</sup> March'91, the liability has increased by Rs. 570 crores as on 3<sup>rd</sup> July, 1991. This event has far reaching financial implications and would affect operating results of the Company in the coming years.

#### 3.0 PROJECT IMPLMENTATION

After completing all the project work at Angul and Damanjodi two new projects were taken up during the current financial year.

#### 3.1 VIth Unit of Captive Power Plant

The work on the installation and commissioning of the VIth Unit of the Captive Power Plant has been proceeding satisfactorily. The contract for the civil work was awarded in October'90 and the progress is ahead of Schedule. BHEL have also commenced the work of erection of Power House Structures and Boiler, and have progressed so far as per Schedule. There have, however, been some delays in the import of certain critical components by BHEL due to imposition of restrictions on imports and opening of Letters of Credit by the Government. The matter is being vigorously followed up with BHEL.

#### 3.2 Billet Casting Facility

The contracts for the civil and structural works for the Billet Casting Facility were awarded in March'90 and April'90 respectively. The progress is on schedule. Tenders for the Billet Casting Machine and other packages have been invited and the finalisation of orders is in an advanced stage. There has, however, been a delay of nearly 24 weeks in the placement of orders for the Billet Casting Machine, on account of travel restrictions imposed on the American representatives of the Vendors due to Gulf War as also due to restrictions imposed on import of Capital goods.

#### 4.0 SYSTEM SUPPORT

Construction of Koraput-Rayagada Railway Line, completion of Coal Handling Plant by SECL, 220 KV Transmission Line by OSEB are some of the critical support systems outside the scope of NALCO's projects which are indicated hereafter.

#### 4.1 Railways

## Koraput-Rayagada (KK RV Line)

The Railway line is under construction. Progress during 1990-91 was slow as the resources were diverted to restore the KK line which was completely damaged and disrupted during cyclone in Andhra Pradesh in May'90. The present trend of progress indicates that this line may be available for trial runs in 1992. On completion and commissioning of this line, the movement of raw materials and finished product to and from Damanjodi is expected to improve.

#### 4.2 Coal

The phase-I permanent Coal Handling Plant comprising of surge bunker & loading silo and wagon loading system has been completed and commissioned by SECL. The coal movement has improved and required quantity of coal is being received.

The phase-II of permanent coal handling plant comprising of coal bunker at pit head and cross country conveyor from pit head to surge bunker at loading point has been delayed and is expected to be ready by end of 1991.

#### 4.3 Power

220KV sub-station at Rengali is practically completed but for the transmission line from Rengali to CPP, the work is yet to be taken up by OSEB, despite the fact that the forest clearance was received in May'90.

OSEB is now planning to install 220 KV sub-station at Kaniha, near NTPC project which will be connected to the proposed 220 KV transmission line to our CPP. However, this has not yet been finalised. This link is essential for NALCO to meet emergencies during load throw-off condition or power shortage.

#### 5.0 EXPANSION OF INTEGRATED ALUMINIUM COMPLEX

With a view to meet the anticipated demand of aluminium metal in the country NALCO obtained Govt. approval in May 1989, for preparation of a Detailed Project Report (DPR) for expansion of the production capacity at its various segments including the setting up of the semi fabrication facilities. The estimated cost of the project would be Rs. 2400 crores at 1990 price level:

Segment	Present Capacity	Proposed Capacity
Bauxite Mine	2.4 million tpa	4.8 million tpa
Alumina Plant	800,000 tpa	1.35 million tpa
Aluminium Plant	218,000 tpa	345,000 tpa
Power Plant	600 MW	960 MW

M/s Engineers India Limited was appointed Consultants for Mines, Alumina and Aluminium sector while M/s. Development Consultants Ltd. for 7<sup>th</sup> and 8<sup>th</sup> Units of Captive Power Plant. The Detailed Project Report was submitted to Govt. Pre-PIB meeting was held in Feb'91 which recommended the proposal subject to clearance of CEA and Deptt. of Environment. For the supporting systems like Coal, Power, Water etc. the clearance from respective organisations has been received. No-objection certificates from State Pollution Control Board are also obtained. However, clearance from Central Pollution Control Board and CEA is yet awaited. It is hoped approval from Govt. for the expansion will be available by end of 1991.

The semi-fabrication facilities envisages production of 36,000 tpa Aluminium Rolled Products. An agreement has been signed with FATA (Italy) and Indian Counterpart M/s. Dastur & Co. of preparation of DPR. The final DPR for Downstream facility has also been submitted with DPR for expansion of integrated aluminium complex.

#### **6.0 EXPORT THRUST**

NALCO is the largest producer of Alumina and Aluminium in India. NALCO's alumina has found acceptance among the leading Smelters in the World and registration of NALCO's metal in the London Metal Exchange has enabled acceptability of our metal by overseas customers. In the international market NALCO has earned a good name in view of the spectacular achievement on export front against stiff competition. Starting alumina export in 1987-88 with 76,000 tonnes which shot up to 384,161 tonnes in 1988-99 to 448,544 tonnes in 1989-90. Only in 90-91 alumina exports dropped to 3,29,000t, due to lower production due to natural calamities. NALCO's alumina has sailed to several countries in the world including middle east, USA, Brazil, USSR, China etc. On the metal export front also, NALCO has consolidated its position. During the last three years, the Company has exported over 60,000 tonnes of metal to various countries including UK, Belgium, Hongkong, Singapore, Italy, West Germany, Taiwan, South Korea, Japan, Thailand, Bangladesh, Pakistan etc.

The Company's cumulative foreign exchange earnings which exceeded Rs. 900 crores by March 1991, has now crossed Rs. 1000 crores.

#### 7.0 ANCILLARY DEVELOPMENT

The Company has been making special efforts to encourage SSI units to manufacture goods of acceptable quality to meet its requirement. Since 1988-89, the Company has made purchases from SSI units to the tune of Rs. 864 lakhs. The process of Registration of Ancillary units, award of Ancillary status including encouragement to SSI units is continuing. In addition the Company has decided to extend technical and technological support to SSI units interested in manufacturing bricks from red mud & fly ash and in setting up of lime factory at Damanjodi.

#### 8.0 CONSERVATION OF ENERGY & TECHNOLOGY ABSORPTION

In terms of Rule 2 of the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules 1988, disclosure of particulars with regard to conservation of energy, technology absorption and foreign exchange earning and outgo etc. are given in Annexure to the report.

#### 9.0 COLLABORATIVE R&D

#### 9.1 Aluminium Silicon Alloys

Your Company has taken up Collaborative Research & Development work on Aluminium Silicon Alloys in association with VAMI of USSR with the assistance of UNDP. The Laboratory tests carried out on Indian raw materials have proved successful. The interim report given by the Soviets to NALCO concerning preliminary results of Pilot Scale Testing conducted during Oct. 1990 has shown suitability of Indian raw materials for the process. Project Performance Evaluation Report (PPER) for Pilot Scale Testing has been submitted to UNDP. The updated Feasibility Report based on Pilot Plant test results for setting up a demonstration unit of 30,000 tpy capacity at Angul is expected to be received shortly.

#### 9.2 Gallium Extraction

Another Collaborative R&D venture is proposed for the extraction of Gallium from Bayer's liquor, its refining to 6 N Purity and testing and characterisation to ascertain the required degree of Purity for the Gallium with UNDP assistance in CP IV. The content of Gallium of NALCO's bauxite being highest in the country, it is proposed to set up an on-line demonstration unit for extraction of two tonnes per year of Crude Gallium in the Alumina Refinery at Damanjodi followed by refining to 6N level characterisation utilising the latest and most modern technology. The pre-feasibility document (Project Formulation Frame-work) has been submitted to the Govt. of India for getting UNDP assistance. The cost of Indian input is proposed to be funded by NALCO's internal resources.

### 9.3 Aluminium-Lithium Alloys

In view of NALCO's capability is produce high purity aluminium and after concluding certain preliminary tests at Defence Metallurgical Research Laboratory, Hyderabad, the newly set up Nonferrous Materials Technology Development Centre have proposed to set up a Pilot Plant for development of AL-Li alloys using NALCO's aluminium metal. Defence Metallurgical Research Laboratory (DMRL), Non-ferrous Materials Technology Development Centre (NFTDC) & Aeronautical Development Authority (ADA) have entered into an agreement to supply 4t of AL-Li products to ADA for their LCA (Light Combat Air-craft) programme. This is expected to be jointly developed at USSR for which 24 tonnes of HP aluminium metal has been despatched from NALCO to USSR. Billets for AL-Li were Cast at DMRL & after extrusion & further heat treatment it will be used in INSAT-II Project. AL-Li sheets, extruded products developed from experimental castings have been fully characterised.

# 9.4 Prototype Development of AL-air Battery at CECRI, Karaikudi

Successful alloy anodes based on 99.8% pure aluminium from NALCO have been developed. Plate type Porous Carbon Cathodes have been prepared and their characteristics studied. Characteristics of aluminium-air battery with uncatalysed Porous Carbon Cathodes & alloy anodes based on 99.8% pure aluminium & alkaline citrate-cum-stannate electrolyte have been studied.

#### 9.5 In-house R&D

- Development of special grade calcined alumina and hydrate and microfined alumina has been taken up in the Alumina Plant Laboratory at Damanjodi.
- Laboratory scale work has been carried out for production of low Soda alumina & high purity alumina.
- Laboratory scale production of alumina fibre using natural fibre (sisal hemp) has also successfully been done which finds application in Metal Matrix composites.
- Chemically bonded building bricks without firing or steam curing has been successfully made from out Red Mud & Fly Ash.
- Test on amenability of our Red Mud for dry disposal has been conducted at Damanjodi. Deep thickened red mud up to 900 gms/litre solid content have been achieved.
- The production of special aluminium alloys belonging to Al-Si-Fe-Cu group was taken up at Angul works with the existing rotary furnace and manual casting facilities for use in automotive industry. About 225t of different alloys consisting of 70 tonnes of AL-Si-132, 100 tonnes of LM-6,5 tonnes of LM-2 &50 tonnes of LM-24 have already been produced. Procurement of Aluminium alloy ingot casting machine is in an advanced stage.

#### 10.0 HUMAN RESOURCES, EMPLOYEES RELATIONS & WELFARE

# **10.1 Human Resources Development**

The Company has employed 974 executives and 4223 non-executives as on 31.3.91. In addition 51 Graduate Engineer Trainees, 181 Operative Trainees and 15 Trainee Assistants are undergoing training. Special attention is paid to the Human Resources Development in the Company. During the year'90 Development Programmes were organised covering 1661 employees. 199 executives were sponsored for training programmes, seminars and conferences within the country. 9 executives were sponsored for training abroad under Colombo Plan and other programmes for 427 mandays.

Particulars of employees as required by section 217 (2A) of the Companies Act 1956 are given in the Annexure to this report.

#### 10.2 Scheduled Castes/Scheduled Tribes

During the year, efforts were continued to improve the representation of SC/ST communities in employment. As on 31.3.91, 934 persons belonged to SC and 979 to ST community out of total strength of 5444 including the Trainees. The representation works out to 17.16% in case of SC and 17.98% in case of ST.

#### 10.3 Industrial Relations

The Industrial Relations continued to be normal. The second long term wage settlement in respect of non-executive employees was implemented during the year and valid upto 31.12.91.

The pay structure in respect of executives has also been revised during the year.

#### 10.4 Use of Hindi

During the year the Third Sub-committee of Parliamentary Committee on Official Language inspected the position of the implementation of official language and appreciated the efforts made by the Company in the direction and made valuable suggestion in the matter.

#### 10.5 Presidential Directives

In terms of Article-69 of the Articles of Association, the Company had received two Presidential Directives from the Govt. of India and complied with the same.

# 10.6 Vigilance

Vigilance Deptt. continued its activities during the year for identifying corruption prone areas, reviewing systems and procedures and detecting specific cases resulting in departmental action or criminal prosecution.

#### 11.0 ENVIRONMENT

NALCO has given utmost importance to ecological balance and since inception had planted 2.7 million trees in the units at Damanjodi and Angul sectors of the Company.

The environmental clearance has been accorded for Bauxite Mines and Alumina Refinery. As desired by the Central Pollution Control Board combined Rapid EIA (Environmental Assessment Impact report) for Smelter and CPP has been submitted. 12 month EIA is under preparation and will be furnished shortly to obtain clearance for Smelter and CPP. To give more emphasis on environmental control, a senior officer in the rank of Dy. General Manager has been posted at Corporate Office who will coordinate with all the units and statutory bodies to ensure maintaining of norms and quality of air & water and to maintain ecological balance.

#### 12.0 DIRECTORS

Govt. of India has appointed Mrs. S.J. Das, Commissioner-cum-Secretary, Govt. of Orissa and Shri A. Ramji, Chief Operating Superintendent, SE Railway, Calcutta as Directors of the Company from 27.1.91 and 11.4.91 respectively. On relinquishing his office as Addl. Secretary & Financial Advisor, Govt. of India, Ministry of Steel & Mines, Shri S Panchapakesan ceased to be a Director of the Company from 1.3.91. Board wishes to place on record their appreciation for the valuable services rendered by him during his association with NALCO. Shri A.C. Sen, Addl. Secretary & Financial Advisor has also joined the Board from 27.5.91. In view of his vast experience in the Department of Economic Affairs, Ministry of Finance, the Company would greatly benefit from his association.

#### **ACKNOWLEDGMENT**

Board of Directors wish to place on record their appreciation for the assistance received from the Ministry of Steel & Mines, Govt. of India, Govt. of Orissa, Railways, Coal India Limited and the Orissa State Electricity Board. We are also thankful to the encouraging response and the excellent support we have received from all our customers in India and abroad. Thanks are also due to the technical consultants namely Aluminium Pechiney, France, Engineers India Limited of India for their continued cooperation. Due to continued and sustained efforts of all our employees, NALCO has been able to attain an all-round satisfactory performance and achieve an outstanding performance level in the export sector. Management gratefully acknowledge the good work done by all our employees and feel confident of their dedicated hard work in future.

For & on behalf of the Board

(KVB Pantulu) Chairman-cum-Managing Director

#### **Annexure to the Director's Report**

Statement of particulars under the Companies (Disclosure of particulars in the Report of Board of Directors) Rules, 1988.

#### A. CONSERVATION OF ENERGY

#### (a) Energy Conservation Measures taken:

NALCO has adopted the most modern and latest energy efficient technology thereby leading to optimal energy consumption for production of alumina and aluminium. Utmost importance is given to regular Energy Audits and consumption figures are constantly monitored. Salient Energy Conservation features being adopted by NALCO are as under:

#### Mines:

- i) Selection of single stage double tooth roll crusher of 900 tph capacity for crushing of ore from 800 mm to 150 mm size. This will save about 20% energy as compared with the installation of hammer crusher for similar duty applications.
- ii) Ripping of overburden by a 700 HP rating Bull Dozer.
- Installation of a 14.6 km downhill single flight multicurve cable belt conveyor system of 900 tph capacity equipped with Power Regeneration System.
   The Energy consumption for mining of Bauxite is anticipated as 3 kwh/t as electrical power and 1 litre/t of HSD.

#### **Alumina**

- i) Installation of Fluidised Bed Calciner of 1400 TPD capacity where an energy saving of about 30% is achieved as compared to conventional Kilns.
- ii) Utilisation of Mechanical Agitators for Precipitation & other vessels.
- iii) Co-generation of power by use of back pressure turbines to achieve maximum utilisation of coal.
- iv) Installation of multiple effect falling film evaporators.
- v) Provisioning of hydraulic variable speed coupling & frequency converters for pumps and drives.

#### **Smelter**

- i) Selection of high current (180 KA) pre-baked centre fed and hooded pots for Aluminium smelting with DC Power consumption of 13,540 kwh/t of metal.
- ii) A microprocessor based pot regulation system for stable operation of pots.
- iii) Computer controlled heating and regulation system for baking furnaces thereby saving in energy consumption.

#### **Captive Power Plant**

i) Specially designed barrel type high pressure module of the turbine with 60% by pass provision in high pressure stage & 100% by pass in low pressure stage. This alongwith electro-hydraulic control will ensure the quick start up as well as sudden

move throw offs without adversely affecting the thermal limits of the reheat cycle condensing steam turbines.

- ii) Microprocessor based burner management system to ensure optimum thermal efficiency of the boiler.
- iii) The Computer controlled data acquisition system will do the alarm monitoring as well as online monitoring of the operation to ensure the highest possible operating efficiency.
- iv) Automatic turbine run up system for generator turbines makes the entire operation from start up to full load operation fully automatic.

## (b) Additional investment and proposals being implemented

Every effort is being made to restrict the energy consumption and to achieve the designed norms during the process of commissioning and stabilisation itself.

Possibilities of implementing energy conservation measures based on new development in the aluminium industry in the world are being looked into.

## (c) Impact of Measures (a)&(b) above

Due to adoption of latest energy efficient technology, NALCO's energy consumption per tonne of aluminium produced is lowest in the country and is comparable with other energy efficient plants in the developed countries.

#### (d) Total Energy Consumption and Energy Consumption per unit

The figures are given in Form 'A'

Form A (See Rule - 2)

#### Form for disclosure of particulars with respect to conservation of Energy

Α.	Power	and	Fuel	Consumption

	·		Captive Power	er Plant, Angul	Alumina Refin	ery, Damanjodi
_			Current Year	Previous Year	Current Year	Previous Year
			(1990-91)	(1989-90)	(1990-91)	(1989-90)
1 Ele	ectricity					
(a) Pu	urchased from OSEB					
Un	nit	(Million KWH)	7.235	11.97	62.26*	117.78*
To	otal amount	(Rs. In lakhs)	88.99	157.12	646.18	1135.83
Av	verage rate	(Rs./KWH)	1.23	1.31	1.038	0.964
b) Ov	wn Generation					
i) Th	rough Diesel Generator Unit			Not applicable		
Un	nits per Ltr. of Diesel Oil Cost/Unit					
ii) Th	rough Steam Turbine/Generator Unit	(Million KWH)	2937.2	2805.2	183.87**	151.56**
En	nergy cost per unit (Coal and Fuel Oil)	(Rs./KWH)	0.2321	0.2082		
2 Co	oal (Specify Quality and where used)					
Qι	uality 'G' Grade					
Qι	uantity	(Tonnes)	24,13,999	22,60,934	453825	530947
To	otal Cost	(Rs. In lakhs)	S	4767.32	2573.03	2712.80
Av	verage rate	(Rs./tonne)	231.97	210.86	566.96	510.94

#### 3 Fuel Oil

		Captive Powr Plant,		Alumina Refinery,		Smelter,	
		Angul		Damanjodi		Angul	
		1990-91 1989-90		1990-91	1989-90	1990-91	1989-90
Quantity	KL	20219	15174	64953	79731	13750	12622
Total amount	Rs. In lakhs	727.57	508.21	2340	2558	494.61	400.41
Average Rate	Rs./KL	3598 3349		3602	3208	3597.18	3172.32

# B. Consumption per Unit of Production

		Standards	Current Year	Previous Year	Remarks
		(if any)	1990-91	1989-90	
Products (with details) uni	t				
Alumina Refinery, Dama	njodi				
. Power	KWH/Ton	380	375.95	350.64	
. Fuel oil for calcination	KG/Ton	85.3	82.44	83.85	
. Coal for steam	KG/Ton	750	668.30	628	
. Oil for Steam	KG/Ton	10	10.89	16.5	
Smelter, Angul					
. AC Energy	KWH/Ton	14600	***15543	14910	
. Fuel Oil	KG/Ton	95	86.4	89.1	
. Others					
i. C.P. Coke	KG/Ton	408	***424.7	*415.3	
ii. C.T. Pitch	KG/Ton	106.5	***107.8	102.2	

<sup>\*</sup> From CPP 62.26 MKWH and 117.78 MKWH of powr were transferred to Alumina Refinery.

 $<sup>^{\</sup>star\star}$  Since power is generated from Steam, no separate cost is available.

<sup>\*\*\*</sup> Because of fire in captive power plant at Angul, on 26.3.90 240 pots in Potline 1 were shunted out and re-started in phases, resulting in higher consumption of power, CP Coke and CT Pitch.

#### **B. TECHNOLOGY ABSORPTION**

### (e) Efforts made in technology absorption

#### FORM-B

# I. Research and Development (R&D)

## 1. Specific areas in which R&D carried out by the company.

R&D activities of the Company have been divided in two categories viz. In-house and Collaborative R&D Work. The In-house R&D activities are being carried out in the areas of alloy and product development, development of special alumina, microfined alumina, low-soda alumina and high purity alumina. Indigenisation of imported materials and spare parts etc have also been taken up. Emphasis is also given for the work concerning the energy conservation, pollution control, and waste utilisation. Production of alumina fibre using natural fibre, amendability of our red mud to deep thickening and possibility of Titanium dioxide production from the sand from the sand separation cyclone under-flow have also been taken up.

In collaborative R&D, NALCO has undertaken the following projects:

- i) "Technological development of non-ferrous materials" in collaboration with NFTDC, Hyderabad,
- ii) "Development of high strength aluminium-Lithium Alloys for aeronautical and defence applications" in collaboration with DMRL and NFTDC, Hyderabad.
- iii) "Prototype development of aluminium-air battery" in collaboration with CECRI, Karaikudi.
- iv) "Direct electro-Smelting of Al-Si alloys" in collaboration with UNDP.
- v) "Extraction of Gallium from Bayer's liquor, its refining to 6N purity, followed by testing & characterisation" with UNDP assistance (Proposed).

#### 2. Benefits derived as a result of the above R&D

- i) NALCO has developed few aluminium silicon and aluminium-Silicon-Copper alloys for Automobile industry as value added products in its in-house R&D work. Regular production facilities for these group of alloys is under progress.
- ii) All the above R&D projects under collaborative R&D are still in progress. The results obtained till now are showing encouraging trends.

#### 3. Future Plan of action

- i) To establish a full-fledged R&D Centre for NALCO to carry out in-house R&D activities.
- ii) To continue all the above collaborative R&D projects.
- iii) To start collaborative R&D work concerning development of aluminum alloys sacrificial anodes for cathodic protection.

#### 4. **Expenditure on R&D**

		1990-91	(Rs. in lakhs) 1989-90
(a) (b) (c) (d)	Capital Recurring Total Total R&D expenditure as percentage of turnover	5.16 5.16 0.006%	302.24 68.50 370.74 0.44%

#### II. Technology absorption, adaption and innovation

#### 1. Efforts made in brief

- Utilisation of AP experts for proper and efficient performance, as per agreement with i) Aluminium Pechiney of France.
- Training of our executives and non-executives for improving their knowledge and operational ii) and maintenance skills.
- Creation of R&D Division for taking up Research & Development work relevant to the iii) Company.
- Proper coordination between top management and other divisions of the units through a well iv) planned management information systems.
- Setting up of planning & design cells at different Units and Corporate Office. v)
- Indigenisation of imported spare parts. vi)

#### 2. Benefits derived as a result of the above efforts

The main benefits derived are development of new alloys, indigenisation of imported spare parts, reduction in energy consumption and cost of production etc.

#### 3. Details of technology imported during the past 5 years

a)	Technology imported	Nil
b)	Year of import	Not Applicable
c)	Has technology been	Not Applicable
	fully absorbed	
d)	If not fully absorbed	Not Applicable

#### (C) FOREIGN EXCHANGE EARNINGS AND OUTGO

#### (a) **Activities relating to export**

NALCO is a new entrant in the international alumina/aluminium market having stated commercial production only during the year 1987. With sustained efforts, the Company could achieve spectacular results on exports against stiff competition from other multinational Aluminium Companies.

NALCO's alumina has sailed to Switzerland, Egypt, China, S. Korea, Bahrain and USSR. It has also successfully exported about 60,000t of metal to various countries including USA, UK, Belgium, Hongkong, Singapore, Italy, France, W. Germany, Norway, South Korea, Japan, Netherlands, Bangladesh and Pakistan.

During the year under report, NALCO achieved the export target of alumina and aluminium despite an unfortunate accident in the Power Plant in March 1990 and dislocation of Rail Transport resulting in closure of the plants for a month leading to considerable loss of production during the early part of the financial year 1990-91

The physical achievements are indicated below:

Products	Target	Actual
Alumina (Tonnes)	3,30,000	3,28,782
Metal (Tonnes)	25,000	27,877

The export performance as far as timely shipments is concerned, were exceptionally good and the Company's image as a reliable supplier of good quality alumina and aluminium ingots has been consolidated.

Owing to rapidly falling prices of Alumina & Aluminium, earnings from exports was considerably less during the year. The average FOB price of alumina realised in the year 1990-91 was US\$ 314/MT compared to US\$ 431/MT in the previous year. Similarly, the average CIF price of aluminum metal realised in the year 1990-91 was US\$ 1727/MT compared to US\$ 1846/MT in 1989-90. The spot prices towards the end of the year 1990-91 were even lower-Alumina around \$ 180 to \$ 190 FOB and metal around \$ 1500-\$ 1600 CIF.

During 1989-90 considerable shipment of alumina was sent to Egypt Aluminium Co. However, in a fresh long term tender, as the prices quoted by the competitors were much lower, NALCO could not get orders in the said long term tender.

NALCO has entered into long term contracts for supply of about 800,000t alumina varying from 3 to 5 years with two major international buyers during the period under report.

#### (b) Export Plans

During the current year, the Company has plans to export 4,00,000 t of calcined alumina/hydrate and 60,000 t of aluminum metal.

#### (c) Total foreign exchange earned and used

Dowtioulous	(Rs. in crores)		
Particulars	1989-90	1990-91	
Foreign exchange earnings	409.32	277.89	
Foreign exchange Outgo	205.06	218.09	

# **Annexure to the Director's Report**

# Information as per Sec. 217(2A) of the Companies Act, 1956 forming part of Directors' Report for the year ended 31.3.91

SI. No.	Name	Designation of the Employees	Remunerat ion recd. (Rupees)	Nature of Employment whether contractual or otherwise	Other terms & conditions	Nature of duties of the employees	Qualification & experience (years)			Last employment held before joining the company	Percentage of equity shares held by the employee in the company
1	2	3	4	5	6	7	8	9	10	11	12
1	Pantulu KVB	CMD	1,67,929	Presidential appointment/ tenure contract	As per Company Rule / Schemes	Chairman and Managing Director	BE(Civil) 36 years	12.9.83	57	Consultant	Nil
2	Azad SH	Director (P&T)	1,81,184	do	do	Functional Director	B.Sc., Mech. Engg. 31 years	4.5.84	54	ED, JP Associates	Nil
3	Mohanty N	Director (Prodn.)	1,81,817	' do	do	do	B.Sc., Hons. M.Sc. (Tech) AMIE 34 years	12.10.81	57	Supdt. (R&D) (A), INDAL	Nil
4	Panda LK	ED(R&D)	1,77,998	Regular	do	Managerial	B.Sc. BE (Chem) Member IIM 33 years	16.4.81	55	Dy. GM(P) BALCO	Nil

Comments of the Comptroller & Auditor General of India under Section 619(4) of the Companies Act, 1956 on the Accounts of National Aluminum Company Limited, Bhubaneswar for the year ended 31<sup>st</sup> March, 1991.

I have to state that the Comptroller & Auditor General of India has no comments upon or supplement to the Auditors' Report under section 619(4) of the Companies Act, 1956 on the accounts of National Aluminium Company Limited for the year ended 31<sup>st</sup> March, 1991.

(SMT. A. BASU)
PRINCIPAL DIRECTOR OF COMMERCIAL
AUDIT & EX-OFFICIO MEMBER, AUDIT
BOARD-I, Calcutta

Dated, Calcutta The 3<sup>rd</sup> September, 1991. Review of the Accounts of National Aluminium Company Limited for the year ended 31<sup>st</sup> March 1991 by the Comptroller and Auditor General of India.

# 1. FINANCIAL POSITON:

The table below summarises the financial position of the Company under broad heading for the last three years.

			(Rs. in lakhs)	
	LIABILITIES	1988-89	1989-90	1990-91
a)	Paid up Capital	1,28,861.92	1,28,861.92	1,28,861.92
b)	Reserves and Surplus	-	12,167.30	19,361.16
c)	Borrowings:			
	i) From Bank-cash credit/Export Packing credit	1,706.47	3,908.46	4,087.46
	ii) Consortium of International Banks	1,67,785.83	1,68,861.08	1,79,369.36
	iii) Others	97.48	94.90	91.95
d)	Trade dues and other current liabilities	14,291.07	24,079.20	23,271.18
	(including provision)			
	TOTAL	3,12,742.77	3,37,972.86	3,55,043.03
	ASSETS			
e)	Gross Block	2,36,197.05	2,80,744.92	3,08,800.42
f)	Less Depreciation	18,628.14	33,054.11	49,327.19
g)	Net fixed Assets (e-f)	2,17,568.91	2,47,690.81	2,59,473.23
h)	Capital work-in-progress	46,274.36	14,601.67	13,393.48
i)	Investment	1,978.12	8,562.44	986.22
j)	Current Assets, Loans and Advances	41,805.07	59,806.69	74,534.37
k)	Miscellaneous expenditure and losses not written off	5,116.31	7,311.25	6,655.73
	TOTAL	3,12,742.77	3,37,972.86	3,55,043.03
	Capital Employed	2,45,082.91	2,83,418.30	3,10,736.42
	Net worth	1,23,745.61	1,33,717.97	1,41,567.35

Note 1: Capital Employed represents net fixed assets plus working capital.

Note 2: Net worth represents paid-up-capital plus reserves less intangible assets.

#### 2. CAPITAL STRUCTURE

Debt equity ratio: The debt equity ratio of the company was 1.30 : 1 in 1988-89, 1.20 : 1 in 1989-90 and 1.21 : 1 in 1990-91;

## 3. RESERVES AND SURPLUS

The Reserves and Surplus (Rs. 19,361.16 lakhs) amounted to 5.45% of the total liabilities in 1990-91 as against 3.60% in 1989-90 and to 15.02% of the equity capital (Rs.1,28,861.92) in 1990-91 as against 9.44% in 1989-90.

#### 4. LIQUIDITY AND SOLVENCY

- a) The percentage of current assets to total net assets varied from 13.37 in 1988-89 to 17.70 in 1989-90 and to 20.99 in 1990-91.
- b) The percentage of current assets to current liabilities (including provisions) varied from 292.53 in 1988-89 to 248.37 in 1989-90 and to 320.29 in 1990-91.
- c) The percentage of Quick Assets (Cash and Bank Balances, debtors and advances) to current liabilities (excluding provisions) varied from 203.94 in 1988-89 to 192.88 in 1989-90 and to 272.07 in 1990-91.

#### 5. WORKING CAPITAL

The working capital (current assets, loans and advances less trade dues & current liabilities excluding provision for gratuity) at the close of the three years ending 31<sup>st</sup> March, 1991 amounted to Rs.27,514.00 lakhs, Rs.35,727.49 lakhs and Rs.51,263.19 lakhs respectively and represented 9.24 months, 7.06 months and 9.16 months value of production at cost (excluding depreciation) during these years.

#### 6. SOURCES AND USES OF FUNDS

Funds amounting to Rs.24,520.25 lakhs from internal sources (depreciation, provisions, reserves and surplus) and Rs.8,823.00 lakhs from other sources were utilised during 1990-91 as follows:

1. 2. 3. 4.	Gross Fixed assets (including capital work-in-progress) Investments Current Assets, Loans and Advances Miscellaneous Expenditure not written off	(Rs. in Lakhs) 26,847.31 (-) 7,576.22 14,727.68 (-) 655.52
	Total	33,343.25

# 7. WORKING RESULTS

The working results of the Company for the last three years are indicated below:

		1988-89	1989-90	1990-91
i)	Profit (+)/Loss (-) as per accounts	1,295.63	17,202.82	7,994.71
ii)	Add/deduct prior period adjustments	(+) 596.75	( - ) 1,516.04	( - ) 800.85
iii)	Profit (+)/Loss (-) before tax	1,892.38	15,686.78	7,193.86
iv)	Tax Provision	-	-	-
v)	Profit (+)/Loss (-) after tax	1,892.38	15,686.78	7,193.86
1.	Percentage of Profit before tax :			
a)	To Sales	4.01	17.72	7.95
b)	To Gross Fixed Assets	0.80	5.59	2.33
c)	To Capital Employed	0.77	5.53	2.32
2.	Percentages of Profit after tax :			
a)	To Net worth	1.53	11.73	14.03
b)	To Equity Capital	1.47	12.17	5.58
c)	To Capital Employed	0.77	5.53	2.32

#### 8. COST TRENDS

The table below indicates the percentage of cost of sales to sales during the last three years :

(Rs. in Lakhs) 1988-89 1989-90 1990-91 Sales (including sales of scrap, export incentive) a) 45,185.65 87,197.80 90,233.53 Internal Consumption b) 2,034.61 1,316.57 266.95 c) Total 47,220.26 88,514.37 90,500.48 d) Add: Loss/profit before tax (-)1,892.38(-)15,686.78 (-)7,193.86e) Cost of Sales 45,327.88 72,827.59 83,306.62 Percentage of cost of sales to sales f) 95.99 82.28 92.05

#### 9. PRODUCTION PERFORMANCE

The value of production during the last three years is worked out below:

		(Rs. in lakhs)		
		1988-89	1989-90	1990-91
a)	Sales (including sale of scrap and export incentive)	45,185.65	87,197.80	90,233.53
b)	Internal Consumption	2,034.61	1,316.57	266.95
c)	Closing stock of finished products	3,897.86	5,742.98	5,902.29
d)	Opening stock	2,591.01	3,897.86	5,742.98
e)	Value of production (a+b+c) - d	48,527.11	90,359.49	90,659.79

The percentage of value of production of net worth increased from 39.22 in 1988-89 to 67.57 in 1989-90 and to 64.04 in 1990-91.

The percentage of value of production of the total net assets of the company increased from 15.52 in 1988-89 to 26.74 in 1989-90 and to 25.53 in 1990-91.

#### 10. INVENTORY AND PRODUCTION

The following table indicates the comparative position of the inventory and its distribution at the close of the last three years.

		(Rs. in lakhs)		
		1988-89	1989-90	1990-91
a)	Raw materials (Including in transit)	1,943.36	1,925.28	1,892.22
b)	Stores, spares & loose tools (including in transit)	7,208.78	10,106.23	12,883.00
c)	Finished products	3,897.86	5.742.98	5,902.29

The stock of raw materials, stores and spares, loose tools (including in transit) was equivalent to 12.32 months consumption in 1990-91 as against 11.05 months' consumption in 1989-90 and 16.50 months' consumption in 1988-89.

The finished products represented 0.78 month's sales (including sale of scrap, export incentive and internal consumption) in 1990-91 as against 0.78 month's sales in 1989-90 and 0.99 month's sales in 1988-89.

#### 11. SUNDRY DEBTORS AND TURN OVER

The following table indicates the volume of book debts and sales for the last three years:

		Total Book Debts		(Rs. in Lakhs)	
As on	Considered good	Considered doubtful	Total	Sales (including sale of scrap and export incentive)	Percentage of debtors to sales
1	2	3	4	5	6
31.3.89	4720.56	-	4720.56	45,185.64	10.44
31.3.90	10105.80	-	10105.80	87,197.80	11.59
31.3.91	11713.22	-	11713.22	90,233.53	12.98

The Sundry debtors represent 1.25 months' sales in 1988-89, 1.39 months' sale in 1989-90 and 1.56 month's sale in 1990-91.

The following table indicates the details of debts outstanding for more than one year as on 31<sup>st</sup> March, 1991:

		(Rs. in Lakhs)		
		Government Department	Private parties	Total
1.	Debts outstanding for more than one year but less than two years.	2081.73	3.33	2085.06
2.	Debts outstanding for two years or more but less than three years	953.14	2.53	955.67
3.	Debts outstanding for three years and above.	4.65	8.73	13.38

(Smt. A. Basu)
Principal Director of commercial
Audit and Ex-Officio Member,
Audit Board-I, Calcutta

Calcutta:

The 3<sup>rd</sup> September, 1991.

Auditor's Report	2
Appexure Referred to in Paragraph-2 of our Report of even Date	3

# Auditor's Report

To
The Member of
National Aluminum Company Limited

- 1. We have audited the annexed Balance Sheet of National Aluminum Company Limited as at 31<sup>st</sup> March, 1991 and also the Profit and Loss Account for the year ended on that date annexed thereto.
- 2. As required by the manufacturing and other Companies (Auditor's) Report Order. 1988 issued by the Company Law Board in terms of section 227(4A) of the Companies Act, 1956, we enclose in the Annexure a statement on the matters specified in paragraphs 4 and 5 of the said order.
- 3. Further to our comments in the Annexure referred to in paragraph 2 above, we report that :
  - (a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;
  - (b) In our opinion, proper books of accounts as required by law, have been kept by the Company so far as appears from our examination of the books;
  - (c) The Balance Sheet and Profit and Loss Account dealt with by this report are in agreement with the Books of Account
  - (d) In our opinion and to the best of our information and according to the explanations given to us, the Company's Profit and Loss Account for the year ended 31st March, 1991 and the Balance Sheet as at that date, read with the notes thereon and Statement of Accounting Policies, give the information required by the Companies Act 1956 in the manner so required and subject to:
  - (i) charging of depreciation on certain assets at rates other than those prescribed in Schedule XIV of the Companies Act, 1956 resulting in undercharging of depreciation for the year by Rs.18,360.98 lakhs with corresponding effect in the trading results and also understatement of accumulated depreciation by Rs.48,143.20 lakhs (Refer Note No. 6).
  - (ii) Provision of liability in respect of cess on coal and in respect of cess on products mined amounting to Rs.1199 lakhs and Rs.834 lakhs respectively having been made pending final decision of the High Court of Orissa against the Company resulting in consequential understatement of Profits.
    - give a true and fair view:
  - (a) In the case of the Balance Sheet of the state of affairs of the Company as at 31<sup>st</sup> March, 1991, and
  - (b) In the case of the Profit and Loss Account of the Profit of Company for the year ended on that date.

P. Venugopala Rao Partner For and on behalf of Tej Raj & Pal Chartered Accountants

Bhubaneswar, 15<sup>th</sup> July, 1991.

## Annexure Referred to in Paragraph-2 of our Report of even Date

- I. (a) The Company has maintained proper records to show full particulars including quantitative details and situation of its fixed assets.
  - (b) Pursuant to the Company's programme of physical verification of fixed assets, which in our opinion reasonable, movable fixed assets of the Company have been verified by the management during the year and such verification revealed no material discrepancies.
- II. The fixed assets of the Company have not been revalued during the year.
- III. The stocks in hand of finished goods, stores, spare parts and raw materials of the Company have been physically verified by the management, and the frequency of verification is reasonable.
- IV. In our opinion, the prescribed procedures of physical verification of stocks followed by the management are reasonable and adequate in relation to the size of the Company and the nature of its business.
- V. The discrepancies between the physical stocks and the book stocks, which were not material, have been properly dealt with in the books of account.
- VI. On the basis of our examination of stock valuation, we are of the opinion that the valuation of the stocks of finished goods, stores, spare parts and raw materials (a) has been fair and proper in accordance with the normally accepted accounting principles and (b) is on the same basis as in the previous year.
- VII. The Company has not taken any loans from Companies, firms or others parties listed in the Register maintained under Section 301 of the Companies Act, 1956 and/or from Companies under the same management as defined under sub-section (1B) of Section 370 of the Companies Act, 1956.
- VIII. The Company has not granted any loans to Companies, firms or other parties listed in the Register maintained under Section 301 of the Companies Act, 1956 and/or to Companies under the same management as defined under sub-section (1B) of Section 370 of the Companies Act, 1956.
- IX. Loans or advances in the nature of loans given to the parties are being repaid as stipulated together with interest, where applicable.
- X. In our opinion, internal control procedures of the Company relating to purchase of stores, raw materials including components, plant and machinery, equipment and other similar assets and for the sale of goods are adequate, and commensurate with the size and the nature of the business of the Company.
- XI. The Company has not purchased goods and materials and sold goods, materials and services aggregating to Rs.50,000/- or more in value from/to any of the parties listed in the register maintained under Section 301 of the Companies Act, 1956.
- XII. The Company has a system of determining unserviceable or damaged stores and raw materials on the basis of technical evaluation and on the aforesaid basis no amount was considered necessary to write off such stocks in the accounts.
- XIII. The Company has not accepted any deposits from public.

- XIV. In our opinion, reasonable records have been maintained by the Company for sale and disposal of scraps. The Company has no byproduct.
- XV. In our opinion, the Company's Internal Audit system is by and large commensurate with the size and nature of its business. However, the frequency of reporting needs to be increased in order to effectively implement the internal audit system.
- XVI. On the basis of the records produced, we are of the opinion that, prima facie, the cost records and accounts as prescribed by the Central Government under Section 209(1) (d) of the Companies Act, 1956 and applicable to the Company have been maintained. However, we are not required to and have not carried out any detailed examination of such accounts and records.
- XVII. The Company is regular in depositing Provident Fund dues with the appropriate authorities. None of the employees of the Company are members of the Employee's State Insurance.
- XVIII. As at 31<sup>st</sup> March, 1991, there were no amounts outstanding in respect of undisputed income tax, sales tax, customs duty and excise duty which were due for more than six months from the date they became payable. The Company is not liable to pay wealth tax.
- XIX. During the course of our examination of the books of account carried out in accordance with the generally accepted auditing practices we have not come across any personal expenses which have been charged to Profit and Loss Account, nor have we been informed of any such case by the management.
- XX. The Company is not a sick industrial company within the meaning of clause '0' of Section 3(1) of the Sick Industrial Companies (Special Provisions) Act, 1985.

P. Venugopala Rao Partner For and on behalf of Tej Raj & Pal Chartered Accountants

Bhubaneswar, 15<sup>th</sup> July, 1991

# **Annual Accounts**

- 01. Balance Sheet
- 02. Profit & Loss Account
- 03. Schedules Forming Part of the Balance Sheet
- 04. Schedules forming Part of the Profit & Loss Account
- 05. Significant Accounting Policies

## **Balance Sheet**

as at March 31, 1991

	Schedule	As at Marcl	h 31, 1991	As at	March 31, 1990
SOURCES OF FUNDS			,		,
Shareholder's Funds					
Share Capital	1.1		1288,61,92		1288,61,92
Reserves and Surplus					
Surplus Balance in Profit and					
Loss Account			193,61,16	;	121,67,30
Loans Funds	1.2				
Seruced Loans		40,87,46		39,08,46	i
Unsecured Loans		1794,61,31		1689,55,98	
			1835,48,77		1728,64,44
Total		<del>-</del>	3317,71,85	_	3138,93,66
APPLICATION OF FUNDS					
Fixed Assets	1.3				
Gross Block		3088,00,42		2807,44,92	
Less : Depreciation		493,27,19		330,54,11	
Net Block			2594,73,23	<b>.</b>	2476,90,81
Capital Work in Progress	1.4		133,93,48		146,01,67
Investments	1.5		9,86,22		85,62,44
Current Assets, Loans and Advances	1.6		-,,		,-,
Inventories		206,77,51		177,74,49	ı
Sundry Debtors		117,13,22		101,05,80	
Cash and Bank Balances		125,87,82		75,24,90	
Other Current Assets		211,66,41		178,34,98	
Loans and Advances		83,89,41		65,66,52	
254.15 4.14 / 14.141.1555		745,34,37		598,06,69	
1. Less : Current Liabilities and Provisions		. 10,0 1,01		000,00,00	
Liabilities		195,32,62		213,93,95	
Provisions		37,38,56		26,85,25	
		232,71,18		240,79,20	_
Net Current Assets		,,,,,,	512,63,19		357,27,49
Miscellaneous Expenditure			,,		,,
To the Extent not Written Off or Adjusted	1.8		66,55,73		73,11,25
Total		-	3317,71,85	_	3138,93,66
Note Forming part of the Accounts	1.9		,-,-,		0.00,00,00
In terms of our attached report of even date					
P.Venugopala Rao	New Delhi	N.S. Paramesy	varan	R.B. Rao	K.V.B. Pantulu
Partner	11th July, 1991	Company Secr		Director	Chairman-cum-
For and on Behalf of	, ,	1 7	,	(Finance)	Managing Director
Tej Raj & Pal	Bhubaneswar			(	
Chartered Accountants.	15th July, 1991				

# Profit and Loss Account for the year ended March 31, 1991

(In T	Thousand	Rupees)
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		Year Ended	Year Ended
	Schedule	March 31,1991	March 31,1990
Income			
Sales	2.1	884,04,41	846,00,73
Finished Products Internally Consumed		2,66,95	13,16,57
Accretion/(Depletion) to Stock of Finished Products	2.2	1,58,66	17,25,20
Other Income	2.3	68,33,14	57,47,99
		956,63,16	933,90,49
Expenditure			
Raw Materials Consumed	2.4	92,18,12	82,08,50
Power & Fuel		149,73,77	132,28,00
Repair & Maintenance	2.5	47,24,82	36,07,35
Other Manufacturing Expenses	2.6	31,75,89	29,28,44
Excise Duty		131,07,49	89,59,82
Employees' Remuneration and Benefits	2.7	27,35,32	22,09,29
Administrative, Selling & Distribution Expenses	2.8	34,34,17	34,63,51
Interest and Financing Charges	2.9	183,49,93	177,79,89
Provisions	2.10	15,17,40	16,71,95
Depreciation		162,80,30	139,79,56
Miscellaneous Expenditure Written Off		1,51,24	1,51,36
		876,68,45	761,87,67
Profit for the year		79,94,71	172,02,82
Less Prior Period Adjustments	2.11	8,00,85	15,16,04
Balance Carried Forward		71,93,86	156,86,78
Profit/(Loss) brought Forward from Previous Year		121,67,30	(35,19,48)
Balance Carried Over to Balance Sheet		193,61,16	121,67,30
Notes forming part of the Accounts	1.9		

In terms of our attached report of even date

P.Venugopala Rao New Delhi N.S. Parameswaran R.B. Rao K.V.B. Pantulu
Partner 11th July, 1991 Company Secretary Director Chairman-cumFor and on Behalf of (Finance) Managing Director
Tej Raj & Pal Bhubaneswar
Chartered Accountants. 15th July, 1991

#### **Schedules**

## Forming part of the Balance Sheet

		As at	•	usand Rupees) As at
		March 31,1991		March 31,1990
Schedule 1.1		· · · · · · · · · · · · · · · · · · ·		•
Share Capital				
Authorised				
130,00,000 Equity Shares				
(Previous year 130,00,000)				
of Rs. 1,000/- each		1300,00,00		1300,00,00
Issued, Subscribed and Paid up :				
128,86,192 Equity Shares				
(Previous year 128,86,192)				
of Rs. 1,000/- Each Fully Paid up				
		1288,61,92		1288,61,92
		1288,61,92		1288,61,92
		As at		As at
		March 31,1991		March 31,1990
Schedule 1.2				
Loan Funds				
A. Secured Loans (Secured by				
Hypothecation of Raw Materials				
Semi/Finished Products, Stores & Book Debts)				
Cash Credit From State Bank of India	8,34,35		14,09,32	
Export Packing Credit From				
Sale Bank of India	32,53,11		24,99,14	
		40,87,46		39,08,46
B. Unsecured Loans				
Medium Term Euro Dollar Loan from				
Consortium of International Banks				
(Guaranteed by Government of India)				
US\$ 59.091 Million	115,63,78		230,01,09	
US\$ 150 Million	293,54,21		258,17,56	
US\$ 70 Million	136,98,63		120,48,19	
US\$ 125 Million	244,61,84		215,14,63	
US\$ 300 Milllion				
(including US\$ 51				
Million Swapped to Swiss Franc 100 Million)	622,57,58		542,61,01	
Japanese Yen 20 Billion	282,48,59		263,12,75	
Medium Term Instalment Sale liability	, , , , , ,		, , -	
(US\$ 50 Million from Morgan Grenfell & CO. LTD)	97,84,73		86,05,85	
Loan from Housing Development				
Finance Corporation Ltd.	91,95		94,90	
<u> </u>	<u> </u>	1794,61,31	·	1689,55,98
		1835,48,77	•	1728,64,44

Schedule 1.3 Fixed Assets

(In Thousand Rupees)

		Gross	Block		Total Depreciation	Net B	lock
Particulars	As on	Additiion	Sales/	Cost as on	upto	As on	As on
	1.4.1990		Adjustments	31.3.1991	31.3.1991	31.3.1991	31.3.1990
A. Plant, Mines and Others							
Free Hold Land (including Cost of Development)	29,68,72	1,50		29,70,22		29,70,22	29,68,72
Lease Hold Land (Including Cost of Development)	1,88,44	2,73		1,91,17	38,26	1,52,91	1,59,68
Buildings	133,72,79	35,84	3,97	134,12,60	21,15,63	112,96,97	118,73,84
Roads, Bridges & Culverts	23,32,27	21,57	-2,38,46	21,15,38	4,15,20	17,00,18	20,07,48
Railway Sidings	44,99,19	13,08	-3,96	45,08,31	9,37,18	35,71,13	37,79,89
Water Supply, Drainage & Sewerage	44,24,63	5,91	25,74	44,56,28	9,39,34	35,16,94	36,84,64
Power Supply, Distribution & Lighting	156,41,58	74,42	-11,67	157,04,33	29,36,68	127,67,65	135,26,13
Plants & Machinery	2238,29,90	273,61,08	52,34	2512,43,32	395,60,57	2116,82,75	1980,68,23
Office Equipments	2,23,73	50,48	-71	2,73,50	1,02,43	1,71,07	1,54,34
Furniture and Fittings	4,07,86	37,16	21	4,45,23	72,31	3,72,92	3,50,99
Vehicles	15,19,18	52,91	34,28	16,06,37	7,69,97	8,36,40	9,24,17
Miscellaneous Equipments	10,77,75	32,63	34,28	11,44,66	2,55,70	8,88,96	8,85,85
Total	2704,86,04	276,89,31	-1,03,98	2980,71,37	481,43,27	2499,28,10	2383,83,96

Plant and machinery Includes Capitalisation of Rs. 57661.46 Lakhs Towards Exchange Variation Loss in accordance with Accounting Policy No. A.4

1 Olloy 140: 71:-1							
B. Social Facilities							
Free Hold Land (Including cost of Development)	2,89,26			2,89,26		2,89,26	2,89,26
Lease Hold Land (Including Cost of Development)	38,82			38.82	6,15	32,67	34,64
Buildings	69,56,87	1,89,78	-16,59	71,30,06	6,41,28	64,88,78	64,45,71
Roads, Bridges & Culverts	11,32,52	5,83	2,39,55	13,77,90	1,05,62	12,72,28	10,45,48
Water Supply, Drainage & Sewerage	8,17,30	41,42	-3,19	8,55,53	1,83,19	6,72,34	6,71,46
Power Supply, Distribution & Lighting	7,02,40	10,45	-8	7,12,77	1,72,13	5,40,64	5,65,62
Office Equipments	1,14		-3	1,11	44	67	81
Furniture and Fittings	76,45	1,00	-49	76,96	20,12	56,84	60,78
Vehicles	48,35	7,86	1,03	57,24	24,11	33,13	28,76
Miscellaneous Equipments	1,95,77	10,61	-16,98	1,89,40	30,88	1,58,52	1,64,33
Total	102,58,88	2,66,95	2,03,22	107,29,05	11,83,92	95,45,13	93,06,85
Schedule Total							
For Current Year	2807,44,92	279,56,26	99,24	3088,00,42	493,27,19	2594,73,23	2476,90,81
For Previous Year	2361,97,05	448,35,58	-2,87,71	2807,44,92	330,54,11	2476,90,81	2175,68,91

Included in the above are the following properties laid on land other than lease which do not belong to the Company.

(i) Building - 76.65 (ii) Roads, Bridges and Culverts - 284,52 (iii) Water Supply, Drainage and Sewarage - 12,74 (iv) Power Supply, Distribution and Lighting - 3,79,81 (V) Railways Sidings - 11,85

Schedule 1.4				(In Thous	and Rupees)	
Schedule 1.4         Capital Work - in - Progress           Construction and Erection Work-in-progress at cost (Including Material with Contractors Rs. 204,04)         46,81,76         71,22,61           Advances to Government Departments & Contractors (Unsecured Considered Good)         55,73,91         14,07,07           Advances to Suppliers for Capital Goods (Unsecured Considered Good)         2,02,99         3,31,90           Stock of Construction Materials at Cost         9,79,18         13,98,37           Stock of Construction Materials at Cost         9,79,18         13,98,37           Plant & Machinery In Transit at Cost         9,79,18         33,43,04           Exchange Variation Pending Capitalisation         13,85,52         33,43,04           Exchange Variation Pending Capitalisation         4,96,04         9,08,85           Expenditure on Expansion Projects         74,08         3,151           As at March 31,1991           As at March 31,1992           As at March 31,1992           As at March 31,1992         123,19,84 <td colspa<="" th=""><th></th><th></th><th></th><th></th><th></th></td>	<th></th> <th></th> <th></th> <th></th> <th></th>					
Capital Work - in - Progress           Construction and Erection Work-in-progress at cost (Including Material with Contractors Rs. 204,04)         46,81,76         71,22,61           Advances to Government Departments & Contractors (Unsecured Considered Good)         55,73,91         14,07,07           Advances to Suppliers for Capital Goods (Unsecured Considered Good)         2,02,99         3,31,90           Close Considered Good)         9,79,18         13,98,37           Construction Materials at Cost         9,79,18         13,98,37           Construction Materials in Transit at Cost         9,79,18         3,34,30           Plant & Machinery in Transit at Cost         4,66,04         9,08,65           Exchange Variation Pending Capitalisation         4,66,04         9,08,65           Expenditure on Expansion Projects         74,08         3,151           Expenditure on Expansion Projects         74,08         3,151           Incidental Expenditure During Construction         3,343,04         123,19,84           Administrative Expenses         1         1,7           Rent Incurance         1         1,7           Insurance         2         1,3           Repairs & Maintenance-Uniding         1,1         2,2           Repairs & Maintenance-Others         30         2	<del></del>	M	arch 31,1991	M	larch 31,1990	
Construction and Erection Work-in-progress at cost (including Material with Contractors Rs. 204,04)         46,81,76         71,22,61           Advances to Government Departments & Contractors (Unsecured Considered Good)         55,73,91         14,07,07           Advances to Government Departments & Contractors (Unsecured Considered Good)         2,02,99         3,31,90           Stock of Construction Materials at Cost         9,79,18         13,98,37           Construction Materials at Cost         9,79,18         13,98,37           Plant & Machinery In Transit at Cost         57,93           Incidental Expenditure Puring Construction         4,96,04         9,08,55           Expenditure on Expansion Projects         74,08         31,51           Expenditure on Expansion Projects         74,08         31,51           Expenditure on Expansion Projects         74,08         31,51           Schedule 1.4.1         133,93,48         146,01,67           As at Material Expenditure During Construction           Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses         17,1         11,11           Insurance         -         13         12,19,44           Repairs & Maintenance-Others         30         -         -           Stores & Spares						
(Including Material with Contractors Rs. 204.04)         46,81,76         71,22,61           Advances to Government Departments & Contractors         55,73,91         14,07,07           Advances to Government Departments & Contractors         55,73,91         14,07,07           Advances to Suppliers for Capital Goods         2,02,99         3,31,90           Construction Materials at Cost         9,79,18         13,98,37           Construction Materials in Transit at Cost         -         57,93           Incidental Expenditure During         -         57,93           Construction Schedule -1.4.1         13,85,52         33,43,04           Exchange Variation Pending Capitalisation         4,96,04         9,08,85           Expenditure on Expansion Projects         74,08         31,51           Exchange Variation Pending Capitalisation         4,96,04         9,08,85           Expenditure on Expansion Projects         74,08         31,51           Exchange Variation Pending Capitalisation         33,43,04         123,19,84           Manchal Tagenal Projects         74,08         31,190           Schedule 1.4.1         Incidental Expenditure During Construction         1,171         1,21           Incidental Expenditure During Construction         33,43,04         123,19,84           Adminis						
Advances to Government Departments & Contractors   Unsecured Considered Good)   55,73,91   14,07,07   Advances to Suppliers for Capital Goods   Unsecured Considered Good)   20,299   3,31,90   3,33,30   3,						
(Unsecured Considered Good)         55,73,91         14,07,07           Advances to Suppliers for Capital Goods (Unsecured Considered Good)         2,02,99         3,31,90           Stock of Construction Materials at Cost         9,79,18         13,98,37           Construction Materials in Transit at Cost         -         57,93           Incidental Expenditure During         -         57,93           Construction Schedule -1.4.1         13,85,52         33,43,04           Expenditure on Expansion Projects         74,08         31,51           Expenditure on Expansion Projects         74,08         31,51           Expenditure on Expansion Projects         74,08         31,51           Expenditure on Expansion Projects         8         4         46,016           Expenditure on Expansion Projects         74,08         31,51         46,016           Expenditure on Expansion Projects         8         4         46,016           Expenditure on Expansion Projects         8         4         46,016           Expenditure on Expansion Projects         8         123,19,84           Expenditure Outring Construction         33,43,04         123,19,84           Administrative Expenses         1,71         1,11           Experise & Maintenance- Unidings         1,1 </td <td>•</td> <td></td> <td>46,81,76</td> <td></td> <td>71,22,61</td>	•		46,81,76		71,22,61	
Advances to Suppliers for Capital Goods	•					
(Unsecured Considered Good)         2,02,99         3,31,90           Stock of Construction Materials at Cost         9,79,18         13,98,37           Construction Materials in Transit at Cost         -         39           Plant & Machinery In Transit at Cost         -         57,93           Incidental Expenditure During         -         33,43,04           Exchange Variation Pending Capitalisation         4,96,04         9,08,85           Expenditure on Expansion Projects         74,08         31,51           As at March 31,1990           Schedule 1.4.1           Incidental Expenditure During Construction           Schedule 1.4.1           Incidental Expenditure During Allocation         33,40,04         123,19,49           <			55,73,91		14,07,07	
Slock of Construction Materials at Cost         9,79,18         13,98,37           Construction Materials in Transit at Cost         -         57,93           Plant & Machinery In Transit at Cost         57,93           Incidental Expenditure During         33,43,04           Construction Schedule - 1.4.1         13,85,52         33,43,04           Exchange Variation Pending Capitalisation         4,96,04         9,08,85           Expenditure on Expansion Projects         74,08         31,51           Exchange Variation Pending Capitalisation         4,96,04         9,08,85           Expenditure on Expansion Projects         74,08         31,51           Exchange Variation Pending Capitalisation         4,96,04         9,08,85           Expenditure on Expansion Projects         74,08         31,51           Total Capitalisation         4,96,04         9,08,85           Schedule 1.4.1         1         As at Manterial Machine Pending Capitalisation         3,43,04         123,19,90           Schedule 1.4.1         1         1,17         1,17         1,171         1,171         1,171         1,171         1,171         1,171         1,171         1,171         1,171         1,171         1,171         1,171         1,171         1,171         1,171						
Construction Materials in Transit at Cost         57,93           Plant & Machinery In Transit at Cost         57,93           Incidental Expenditure During         57,93           Construction Schedule - 1.4.1         13,85,52         33,43,04           Exchange Variation Pending Capitalisation         4,96,04         9,08,65           Expenditure on Expansion Projects         74,08         31,51           As at March 31,1991         March 31,1990           Schedule 1.4.1           Incidental Expenditure During Construction           Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses         1         1,71           Rent         -         1,71           Insurance         -         1,71           Repairs & Maintenance- buildings         (-) 1,28         83           Repairs & Maintenance-Others         30         -           Stores & Spares         9         99,77           Power & Fuel         (-) 20,34         5,11           Others         30,26         17,10         1,33,53           Start up & Commissioning Expenses         3,44,70         21,59,73           Technical Consultancy Fees & Expenses         1,20,99         (-) 27,09 <td></td> <td></td> <td></td> <td></td> <td></td>						
Plant & Machinery In Transit at Cost			9,79,18			
Incidental Expenditure During   13,85,52   33,43,04     Schange Variation Pending Capitalisation   4,96,04   9,08,85     Expenditure on Expansion Projects   74,08   31,51     Incidental Expenditure on Expansion Projects   74,08   146,01,67     Incidental Expenditure During Construction   74,09   74,09     Schedule 1.4.1   Incidental Expenditure During Construction   74,09   74,09     Opening Balance Awaiting Allocation   33,43,04   123,19,84     Administrative Expenses   1,71   1,71     Insurance   1			-			
Construction Schedule - 1.4.1         13,85,52         33,43,04           Exchange Variation Pending Capitalisation         4,96,04         9,08,85           Expenditure on Expansion Projects         74,08         31,51           Taylor         133,93,48         146,01,67           Schedule 1.4.1           Incidental Expenditure During Construction         Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses         1         1,71           Rent         -         13         13           Repairs & Maintenance- buildings         (-) 1,28         83         8           Repairs & Maintenance-Machinery         8,07         20,58         8           Repairs & Maintenance-Others         30         -         9         99,77           Power & Fuel         (-) 20,34         5,11         5,11           Others         30,26         5,40         1,33,53           Start up & Commissioning Expenses         3,44,70         21,59,73           Technical Consultancy Fees & Expenses         1,20,09         (-)27,09           Excise Duty         88,83         6,13,71           Enabing Works         3,2         4,94           Selling and distributio			-		57,93	
Exchange Variation Pending Capitalisation         4,96,04         9,08,85           Expenditure on Expansion Projects         74,08         31,51           As at March 31,1991         As at March 31,1990           Schedule 1.4.1           Incidental Expenditure During Construction           Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses         8         1,71           Rent         -         1,71           Insurance         -         1,71           Repairs & Maintenance- buildings         (-) 1,28         83           Repairs & Maintenance- Machinery         8,07         20,58           Repairs & Maintenance-Others         30         -           Stores & Spares         9         99,77           Power & Fuel         (-) 20,34         5,11           Others         30,26         5,40           Start up & Commissioning Expenses         3,44,70         21,59,73           Start up & Commissioning Expenses         3,247,0         2,159,73           Excise Duty         88,83         6,13,71           Enabing Works         3,20         4,94           Selling and distribution Expenses         61         2,21,59,7	Incidental Expenditure During					
Expenditure on Expansion Projects         74,08         31,51           As at 133,93,48         146,016,76           Schedule 1.4.1         Incidental Expenditure During Construction           Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses           Rent         -         1,71           Insurance         -         1,71           Insurance         -         1,31           Repairs & Maintenance- buildings         (-) 1,28         83           Repairs & Maintenance-Others         9         99,77           Repairs & Maintenance-Others         9         99,77           Stores & Spares         9         99,77           Power & Fuel         (-) 20,34         5,11           Others         30,26         5,11           Start up & Commissioning Expenses         3,44,70         21,59,73           Excise Duty         88,83         6,13,71           Enabing Works         3,20         4,94           Selling and distribution Expenses         6         1         2,14,94           Exes: Income         2,24,83         32,72,09         2,83,94           Depreciation	Construction Schedule - 1.4.1		13,85,52		33,43,04	
Name	Exchange Variation Pending Capitalisation		4,96,04		9,08,85	
As at March 31,1991         As at March 31,1990           Schedule 1.4.1         Incidental Expenditure During Construction           Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses         8           Rent         -         1,71           Insurance         -         13           Repairs & Maintenance-buildings         (-) 1,28         83           Repairs & Maintenance-Machinery         8,07         20,58           Repairs & Maintenance-Others         30         -           Stores & Spares         9         99,77           Power & Fuel         (-) 20,34         5,11           Others         30,26         5,40           17,10         1,33,53           Start up & Commissioning Expenses         3,44,70         21,59,73           Technical Consultancy Fees & Expenses         1,20,09         (-) 27,09           Excise Duty         88,83         6,13,71           Enabing Works         3,20         4,94           Selling and distribution Expenses         6         21,07           Depreciation         (-) 5,51         (-) 55,36           Income Tax         (-) 44,13         33,4	Expenditure on Expansion Projects		74,08		31,51	
Schedule 1.4.1         Incidental Expenditure During Construction           Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses           Rent         -         1,71         1           Insurance         -         13         83           Repairs & Maintenance-buildings         (-) 1,28         83         83           Repairs & Maintenance-Machinery         8,07         20,58         2           Repairs & Maintenance-Others         30         -         5           Stores & Spares         9         99,77		_	133,93,48	_	146,01,67	
Schedule 1.4.1         Incidental Expenditure During Construction           Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses           Rent         -         1,71         1           Insurance         -         13         83           Repairs & Maintenance-buildings         (-) 1,28         83         8           Repairs & Maintenance-Machinery         8,07         20,58         2           Repairs & Maintenance-Others         30         -         -           Stores & Spares         9         99,77						
Schedule 1.4.1           Incidental Expenditure During Construction           Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses         1,71           Rent         -         1,71           Insurance         -         13           Repairs & Maintenance- buildings         (-)1,28         83           Repairs & Maintenance-Machinery         8,07         20,58           Repairs & Maintenance-Others         30         -           Stores & Spares         9         99,77           Power & Fuel         (-) 20,34         5,11           Others         30,26         5,40           Start up & Commissioning Expenses         3,44,70         21,59,73           Technical Consultancy Fees & Expenses         1,20,09         (-) 27,09           Excise Duty         88,83         6,13,71           Enabing Works         3,20         4,94           Selling and distribution Expenses         61         21,07           Depreciation         (-) 5,51         (-) 55,36           Income Tax         (-) 44,13         33,41           Less : Income         5,24,89         32,72,09           Interest Earned         2						
Depining Balance Awaiting Allocation   33,43,04   323,19,84   Administrative Expenses   1,771   1,77	Sohodulo 1 4 1	IVI	arch 31,1991	IV	iarch 31,1990	
Opening Balance Awaiting Allocation         33,43,04         123,19,84           Administrative Expenses         1,71         1,71           Rent         -         1,71         1,71           Insurance         -         1,71         1,71           Repairs & Maintenance- buildings         (-) 1,28         83         2,258           Repairs & Maintenance-Others         30         -         2,258           Repairs & Maintenance-Others         30         -         -           Stores & Spares         9         99,77						
Administrative Expenses         Rent       -       1,71         Insurance       -       13         Repairs & Maintenance- buildings       (-) 1,28       83         Repairs & Maintenance-Others       8,07       20,58         Repairs & Maintenance-Others       30       -         Stores & Spares       9       99,77         Power & Fuel       (-) 20,34       5,11         Others       30,26       5,40         Insurance       17,10       1,33,53         Start up & Commissioning Expenses       17,10       1,33,53         Start up & Commissioning Expenses       1,20,09       (-) 27,09         Excise Duty       88,83       6,13,71         Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         Less : Income       2,21,09       38,79,52         Interest Earned       2,21,09       5,87,96         Other Income out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,04,89       38,79,52			22 42 04		100 10 04	
Rent         -         1,71           Insurance         -         13           Repairs & Maintenance- buildings         (-) 1,28         83           Repairs & Maintenance-Others         3,07         20,58           Repairs & Maintenance-Others         30         -           Stores & Spares         9         99,77           Power & Fuel         (-) 20,34         5,11           Others         30,26         5,40           Start up & Commissioning Expenses         1,710         1,33,53           Start up & Commissioning Expenses         1,20,09         (-) 27,09           Excise Duty         88,83         6,13,71           Enabing Works         3,20         4,94           Selling and distribution Expenses         61         21,07           Depreciation         (-) 5,51         (-) 55,36           Income Tax         (-) 44,13         33,41           Less : Income         2,48,35         32,72,09           Interest Earned         2,21,09         5,87,96           Other Income         35,45         19,47           Net Expenditure /(income) During the year         20,00         (9,95,58)           Total Expenditure         3,63,04         113,24,26	-		33,43,04		123,19,64	
Insurance         -         13           Repairs & Maintenance- buildings         (-) 1,28         83           Repairs & Maintenance-Machinery         8,07         20,58           Repairs & Maintenance-Others         30         -           Stores & Spares         9         99,77           Power & Fuel         (-) 20,34         5,11           Others         30,26         5,40           Insurance         17,10         1,33,53           Start up & Commissioning Expenses         3,44,70         21,59,73           Technical Consultancy Fees & Expenses         1,20,09         (-) 27,09           Excise Duty         88,83         6,13,71           Enabling Works         3,20         4,94           Selling and distribution Expenses         61         21,07           Depreciation         (-) 5,51         (-) 55,36           Income Tax         (-) 44,13         33,41           Less : Income         5,24,89         28,83,94           Less : Income         5,24,89         5,87,96           Other Income         35,45         19,47           Other Income         35,48         5,04,89           Net Expenditure /(income) During the year         20,00         (9,95,5	-			4 74		
Repairs & Maintenance- buildings       (-) 1,28       83         Repairs & Maintenance-Machinery       8,07       20,58         Repairs & Maintenance-Others       30       -         Stores & Spares       9       99,77         Power & Fuel       (-) 20,34       5,11         Others       30,26       5,40         17,10       1,33,53         Start up & Commissioning Expenses       3,44,70       21,59,73         Technical Consultancy Fees & Expenses       1,20,09       (-) 27,09         Excise Duty       88,83       6,13,71         Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         Less : Income       5,24,89       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       9,95,58         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation		-				
Repairs & Maintenance-Machinery       8,07       20,58         Repairs & Maintenance-Others       30       -         Stores & Spares       9       99,77         Power & Fuel       (-) 20,34       5,11         Others       30,26       5,40         17,10       1,33,53         Start up & Commissioning Expenses       3,44,70       21,59,73         Technical Consultancy Fees & Expenses       1,20,09       (-) 27,09         Excise Duty       88,83       6,13,71         Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         Less: Income       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04		- () 4 00				
Repairs & Maintenance-Others       30       -         Stores & Spares       9       99,77         Power & Fuel       (-) 20,34       5,11         Others       30,26       5,40         Start up & Commissioning Expenses       17,10       1,33,53         Start up & Commissioning Expenses       3,44,70       21,59,73         Technical Consultancy Fees & Expenses       1,20,09       (-) 27,09         Excise Duty       88,83       6,13,71         Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         Ess: Income       5,24,89       28,83,94         Less: Income       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04 <td>· ·</td> <td>* *</td> <td></td> <td></td> <td></td>	· ·	* *				
Stores & Spares       9       99,77         Power & Fuel       (-) 20,34       5,11         Others       30,26       5,40         17,10       1,33,53         Start up & Commissioning Expenses       3,44,70       21,59,73         Technical Consultancy Fees & Expenses       1,20,09       (-) 27,09         Excise Duty       88,83       6,13,71         Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         Less: Income       3,24,89       28,83,94         Less: Income       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04	· · ·			20,58		
Power & Fuel         (-) 20,34         5,11           Others         30,26         17,10         1,33,53           Start up & Commissioning Expenses         3,44,70         21,59,73           Technical Consultancy Fees & Expenses         1,20,09         (-) 27,09           Excise Duty         88,83         6,13,71           Enabring Works         3,20         4,94           Selling and distribution Expenses         61         21,07           Depreciation         (-) 5,51         (-) 55,36           Income Tax         (-) 44,13         33,41           Less: Income         5,24,89         28,83,94           Less: Income         2,48,35         32,72,09           Interest Earned         2,21,09         5,87,96           Other Income         35,45         19,47           Net Expenditure /(income) During the year         20,00         (9,95,58)           Total Expenditure         33,63,04         113,24,26           Amount Allocated to Fixed Assets/Work-in-Progress         19,77,52         79,81,22           Balance Awaiting Allocation         33,43,04	•			-		
Others         30,26         5,40           17,10         1,33,53           Start up & Commissioning Expenses         3,44,70         21,59,73           Technical Consultancy Fees & Expenses         1,20,09         (-) 27,09           Excise Duty         88,83         6,13,71           Enabing Works         3,20         4,94           Selling and distribution Expenses         61         21,07           Depreciation         (-) 5,51         (-) 55,36           Income Tax         (-) 44,13         33,41           Less: Income         5,24,89         28,83,94           Less: Income         2,48,35         32,72,09           Interest Earned         2,21,09         5,87,96           Other Income         35,45         19,47           Net Expenditure /(income) During the year         20,00         (9,95,58)           Total Expenditure         33,63,04         113,24,26           Amount Allocated to Fixed Assets/Work-in-Progress         19,77,52         79,81,22           Balance Awaiting Allocation         13,85,52         33,43,04	·	_				
17,10       1,33,53         Start up & Commissioning Expenses       3,44,70       21,59,73         Technical Consultancy Fees & Expenses       1,20,09       (-) 27,09         Excise Duty       88,83       6,13,71         Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         5,24,89       28,83,94         Less: Income       1ncome out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04		* *				
Start up & Commissioning Expenses       3,44,70       21,59,73         Technical Consultancy Fees & Expenses       1,20,09       (-) 27,09         Excise Duty       88,83       6,13,71         Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         Less: Income       5,24,89       28,83,94         Less: Income out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04	Others	30,26		5,40		
Technical Consultancy Fees & Expenses       1,20,09       (-) 27,09         Excise Duty       88,83       6,13,71         Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         Less: Income       (-) 44,13       32,72,09         Income out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04						
Excise Duty       88,83       6,13,71         Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         5,24,89       28,83,94         Less: Income       Income out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04						
Enabing Works       3,20       4,94         Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         Less: Income       5,24,89       28,83,94         Less: Income out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04	Technical Consultancy Fees & Expenses					
Selling and distribution Expenses       61       21,07         Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         5,24,89       28,83,94         Less: Income       Income out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04						
Depreciation       (-) 5,51       (-) 55,36         Income Tax       (-) 44,13       33,41         5,24,89       28,83,94         Less: Income       1ncome out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04			3,20			
Income Tax         (-) 44,13         33,41           5,24,89         28,83,94           Less: Income         2,24,835         32,72,09           Interest Earned         2,21,09         5,87,96           Other Income         35,45         19,47           Net Expenditure /(income) During the year         20,00         (9,95,58)           Total Expenditure         33,63,04         113,24,26           Amount Allocated to Fixed Assets/Work-in-Progress         19,77,52         79,81,22           Balance Awaiting Allocation         13,85,52         33,43,04	- · · · · · · · · · · · · · · · · · · ·					
5,24,89       28,83,94         Less: Income       5,24,89       28,83,94         Income out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04	•					
Less : Income       2,48,35       32,72,09         Income out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04	Income Tax		(-) 44,13	_		
Income out of Trial Production       2,48,35       32,72,09         Interest Earned       2,21,09       5,87,96         Other Income       35,45       19,47         Net Expenditure /(income) During the year       20,00       (9,95,58)         Total Expenditure       33,63,04       113,24,26         Amount Allocated to Fixed Assets/Work-in-Progress       19,77,52       79,81,22         Balance Awaiting Allocation       13,85,52       33,43,04			5,24,89		28,83,94	
Interest Earned         2,21,09         5,87,96           Other Income         35,45         19,47           Net Expenditure /(income) During the year         20,00         (9,95,58)           Total Expenditure         33,63,04         113,24,26           Amount Allocated to Fixed Assets/Work-in-Progress         19,77,52         79,81,22           Balance Awaiting Allocation         13,85,52         33,43,04						
Other Income         35,45         19,47           S,04,89         38,79,52           Net Expenditure /(income) During the year         20,00         (9,95,58)           Total Expenditure         33,63,04         113,24,26           Amount Allocated to Fixed Assets/Work-in-Progress         19,77,52         79,81,22           Balance Awaiting Allocation         13,85,52         33,43,04		2,48,35		32,72,09		
Standard         5,04,89         38,79,52           Net Expenditure /(income) During the year         20,00         (9,95,58)           Total Expenditure         33,63,04         113,24,26           Amount Allocated to Fixed Assets/Work-in-Progress         19,77,52         79,81,22           Balance Awaiting Allocation         13,85,52         33,43,04				5,87,96		
Net Expenditure /(income) During the year         20,00         (9,95,58)           Total Expenditure         33,63,04         113,24,26           Amount Allocated to Fixed Assets/Work-in-Progress         19,77,52         79,81,22           Balance Awaiting Allocation         13,85,52         33,43,04	Other Income	35,45		19,47		
Total Expenditure         33,63,04         113,24,26           Amount Allocated to Fixed Assets/Work-in-Progress         19,77,52         79,81,22           Balance Awaiting Allocation         13,85,52         33,43,04		_		_		
Amount Allocated to Fixed Assets/Work-in-Progress 19,77,52 79,81,22 Balance Awaiting Allocation 13,85,52 33,43,04				_		
Balance Awaiting Allocation 13,85,52 33,43,04	·			_		
			19,77,52		79,81,22	
33,63,04 113,24,26	Balance Awaiting Allocation			_		
		_	33,63,04	_	113,24,26	

							sand Rupees)
	Face Value	F	s at March 31,199	91	As	s at March 31,199	0
Particulars	Per - Unit (Rs.)	Number	Market Value	Book Value	Number	Market Value	Book Value
Schedules 1.5							
Investments Valued at Cost							
(Unquoted unless Otherwise Stated)							
Government Securities							
7 Year national Savings Certificate &							
Post Office Term Deposit							
(Deposited with Government Authorities)				8,67			8,67
Other Investments							
13% Nuclear Power Corporation Bonds	1,000.00	95000		9,77,55	185000		18,85,65
13% Hindusthan Zinc Ltd. Bonds	1,000.00			-	260000		26,23,40
13% Mahanagar Telepohne							
Nigam Ltd. Bonds	1,000.00			-	50000		5,00,00
9% Mahanagar Telephone							
Nigam Ltd Bonds	1,000.00			-	100000		9,77,50
Magnums	500.00			-	174000		9,22,72
Units (Quoted)	10.00			-	11500000	16,33,00	16,44,50
			_	9,86,22		_	85,62,44
Aggregte Book Value of Quoted Investment	s		_	-		_	16,44,50
Aggregate Book Value of Unquoted Investr	nents			9,86,22			69,17,94
Aggregate Market Value of Quoted Investm	ents			-			16,33,00

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		As at March		As at March
		31, 1991		31, 1990
Schedule 1.6				
Current Assets Loans & Advances				
Current Assets :				
Inventories				
Raw Materials at Cost (Including Rs. 7,25,43 in Transit)	18,92,22		19,25,28	
Stock in Trade at Lower of				
Cost or Net Realisable value	59,02,29		57,42,98	
Stores and Spares at Cost (Including Rs. 17,13,95 in				
Transit out of Which Rs. 1,03,55 Awaiting Inspection)	128,83,00		101,06,23	
	·	206,77,51		177,74,49
Sundry Debtors ( Unsecured Considered Good)				
Debts Over Six Months	36,59,98		39,42,33	
Other Debts	80,53,24		61,63,47	
		117,13,22		101,05,80
Cash and Bank Balances				
Cash Balance on Hand				
Including Imprest, Stamp & Postal Orders	5,31		4,53	
Bank Balance with Schdeuled Banks				
In Current Accounts	2,54,29		39,31	
In Short Term/Fixed Deposits	123,08,20		74,60,57	
In Post office Savings Accounts	20,02		20,49	
		125,87,82		75,24,90
Other Current Assets				
Deposit with SBI Capital Market Ltd	106,81,48		110,00,00	
Deposit with Canbank Mutual Fund	-		54,00,00	
Deposit with Canfina	89,00,00			
	195,81,48		164,00,00	
Interest Accrued on Investments, Deposits and Unsance LC	14,49,98		13,36,72	
Interest Accrued on advances to Employees	1,22,54		85,33	
Interest Accrued on Loan to Public Sector Company	12,41		12,93	
		211,66,41		178,34,98

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#### Loans, Advances & Deposits Unsecured Considered Good

(Unless otherwise stated)

Loans	

Loans :				
Employees (Rs. 3,73,71 Secured)	5,49,62		3,95,99	
Stores on Loans Basis	77,80		75,03	
Loan to Public Sector Company (Secured				
by a Floating Charge on Stock of Gold				
Held by India Government Mint. Bombay)	5,00,00		7,00,00	
		11,27,42		11,71,02
Advances :				
Advances to Employees	72,00		64,50	
Advance Payment of Sales Tax	4,26		-	
Income Tax Deducted at Source	3,63,38		1,43,28	
Advances to Others	36,66,23		26,49,30	
Amount Due from Balco	1,97		1,97	
Advance for Andhra Bauxite Project	65,99		65,99	
Prepaid Expenses	1,06,08		94,83	
Claims Recoverable	23,73,62		17,02,91	
		66,53,53		47,22,78
Deposits :				
Deposits with Government Departments	43,35		30,20	
Deposits with Customs Authorities	74,11		18,58	
Deposits with Port Authorities	18,97		21,77	
Deposits with Sales Tax Department	2,08,74		3,17,90	
Deposits with Excise Authority	2,43,09		2,67,76	
Deposit with Others	20,20		16,51	
	<u></u>	6,08,46		6,72,72
	<u></u>	83,89,41		65,66,52
	<u></u>	745,34,37		598,06,69
			(In Thousa	and Rupees)

	As at March	As at March
	31, 1991	31, 1990
Schedule 1.7		
Current Liabilities and Provisions		
Liabilities :		
Sundry Creditors	84,40,06	63,41,11
Other Liabilities (Including Advance from		
Customers of Rs. 684,51)	88,83,66	1,16,10,66
Security Deposits	11,58,53	12,26,51
Interest Accrued But Not Due on Loans	10,50,34	22,51,67
commitment Charges Accrued But Not Due	3	-
	195,32,62	213,93,95
Provisions :		
For Doubtful Advances	1,83,38	1,83,39
For Relining	35,55,18	21,06,46
For Sundries	-	3,95,40
	37,38,56	26,85,25
	232,71,18	240,79,20
		(In Thousand Rupees
	As at March	As at March
	31, 1991	31, 1990

Balance Addition/ Written of Balance as at Adjustments During as at April 1,1990 During 1990-91 1990-91 March 31,1991 Preliminary Expenditure 12,01 6,00 6,01 Expenditure for Raising Capital 3,99 1,99 2,00 1,26,39 63,20 Training Expenses 63,19 43,37 Mines Development Expenses 86,74 43,37 Bad and Doubtful Advances 73,35 36,68 36,67 Interest and Penalties on Sales Tax 70,06,53 -5,04,28 65,02,25 2,24 Scientific Research 2,24 Total for Current Year 73,11,25 -5,04,28 1,51,24 66,55,73 58,65,78 Total for Previous Year 15,96,83 1,51,36 73,11,25

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## Schedules forming part of the Profit & Loss Account

(In Thousand Rupees) Year ended Year ended March 31,1991 March 31,1990 Schedule 2.1 Sales **Export:** Alumina Hydrate 3,83,83 5,10 Calcined Alumina 1,84,80,03 3,24,31,12 **Aluminium Ingots** 89,13,87 80,60,39 Aluminium Wire Rods 22,41 2,77,77,73 4,05,19,02 Indigenous: **Bauxite** 14,35 23,50 Alumina Hydrate 2,82,22 15,72,78 Calcined Alumina 2,06,78 1,40,20 **Aluminium Ingots** 3,18,78,71 1,95,56,36 Aluminium Wire Rods 2,66,92,86 2,03,08,13 Electricity 15,51,76 24,80,74 6,06,26,68 4,40,81,71 Total 8,84,04,41 8,46,00,73

Schedule 2.2
Accretion/Depletion to Finished & intermediary products

(In Thousand Rupees) Adjustments Opening Adjusted Closing Accretion/ Stock During the year Stock Stock Depletion Bauxite 97,24 2,05,00 2,05,00 3,02,24 (3,39,30)(3,39,30)(2,05,00)(-1,34,30)Alumina Hydrate 2,80,28 2,80,28 2,13,32 -66,96 (4,01,61)(4,01,61)(2,80,29)(-1,21,33)Calcined Alumina 14,29,18 14,29,18 23,43,24 9,14,06 (11,17,54)(11,17,54)(14,29,18)(3,11,64)**Aluminium Ingots** 19,00,45 65 19,01,10 11,24,31 -77679 (3,35,41)(1,06,23)(4,41,64)(19,00,45)(14,58,81)Aluminium Wire Rods 1,99,78 1,99,78 65,97 -13381 (13,69)(1,99,78)(1,65,88)(20,21)(33,90)Other Items 17,28,29 17,28,29 18,53,21 1,24,92 (16,83,79)(16,83,79)(17,28,29)(44,50)Total 57,42,98 65 57,43,63 59,02,29 1,58,66 (1,19,92)(40,17,78)(57,42,98)(38,97,86)(17,25,20)

Figures in brackets represents those for previous year.

Negative Figure indicates depletion of Finished Products.

(In Thousand Rupees)

		(III Tribusaria Rupees)
	Year Ended	Year Ended
	March 31,1991	March 31,1990
Schedules 2.3		
Other Income		
Income from recovery of Rent, Electericity & Water Charges	65,05	62,24
Income from use of Vehicle & Aviation	8,32	6,80
Income from Guest House	2,85	1,99
Interest (gross) Income from Investments		
(Tax Deducted at Source Rs. 10,80)	4,15,08	4,27,26
Interest Income from Employees, Unsance LCs and Others	5,28,63	2,18,17
Machinery Hire Charges	4,87	2,24
Export Incentive	18,29,12	25,95,71
Miscellaneous Income	2,55,23	49,89
Sale of Scrap	-	1,36
Interest Income from Deposits	36,53,21	22,84,66
Interest Income From Loan to Public Sector Company	70,78	97,67
Total	68,33,14	57,47,99

	Year ended Marc	Year ended March 31st, 1991		h 31st, 1990
	Quantity (MT)	Value	Quantity (MT)	Value
Schedule 2.4				
Raw Materials Consumed				
Caustic soda	37887	26,38,88	49638	30,83,59
C.P.Coke	61286	37,76,13	54421	31,24,86
C.T. Pitch	16695	13,29,24	13064	7,68,25
Aluminium fluroride	3047	9,37,90	2466	6,75,67
Lime	25463	2,36,07	28234	2,79,95
Others		2,99,90		2,76,18
Total		92,18,12		82,08,50

	(In Thousand Rupee	
	Year Ended	Year Ended
	March 31st, 1991	March 31st, 1990
Schedule 2.5		
Repair & Maintenance		
Buildings	1,29,64	34,65
machinery	39,56,40	32,66,87
Others	6,38,78	3,05,83
Total	47,24,82	36,07,35
		(In Thousand Rupees)
	Year Ended	Year Ended
	March 31st, 1991	March 31st, 1990
Schedules 2.6		_
Other Manufacturing Expenses	44.00.44	40.55.00
Royality & Cess	14,28,44	13,55,62
Freight	9,87,05	8,01,42
Others	7,60,40	7,71,40
Total	31,75,89	29,28,44
		(In Thousand Rupees)
	Year Ended	Year Ended
	March 31st, 1991	March 31st, 1990
Schedule 2.7 Employees' Remuneration and Benefits		
Salaries & Wages	21,17,32	17,71,51
Contribution to Provident Fund		
	1,55,48	1,26,11
Staff Welfare Expenses	4,43,88	2,96,54
Gratuity	18,64	15,13
Total	27,35,32	22,09,29

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	Year Ended	Year Ended
	March 31st, 1991	March 31st, 1990
Schedule 2.8		maron orot, root
Administrative, Selling & Distribution Expenses		
Administrative :		
Rent for Office and guest House	63,81	50,64
Rent for Leased Accomodation	14,88	14,99
Rates and Taxes	61,93	31,36
Insurance	1,57,85	1,31,51
Auditors' Remuneration-Fees	1,08	90
Auditors' Remuneration-Expenses	1,05	2,35
Auditors' Remuneration- Tax Audit Fees	40	40
Repairs & Maintenance-Buildings	51,79	66,69
Repairs & Maintenance - Others	1,20,23	2,14,04
Vehicle Operating Expenses	57,34	57,03
Consumption of Stores	44,99	80,34
Recruitment Expenses	20,43	33,13
Bank Charges	45,53	75,28
Legal Expenses	11,11	13,81
Filing Fees	1	1
Printing & Stationery	59,09	58,36
EDP Expenses	14,68	67
Postage, Telegram, Telex & Telephone	1,07,26	1,03,03
Advertisement & Publicity	41,41	37,14
Entertainment	4,63	4,25
Power and Fuel	43,73	46,82
Travelling Expenses	2,10,72	1,97,08
Demurrage	31,44	39,21
Directors' Sitting Fees	2	-
Hire Charges for Machinery/Vehicles	54,88	67,44
Donations	12,42	34
Management Development & Training	25,52	15,09
Planatation/Horticulture	33,28	19,52
Maintenance of Guest House	6,45	8,71
Miscelleneous Consultancy	18,28	27,07
CISF Expenses	3,35,69	2,48,57
Fire Fighting Services	7,85	13,25
Other Miscellaneous Expenses	99,49	94,25
Loss on Sale of Assets and Shortages	16	55
Technical Assistance Fees and Expenses	3,41,61	4,11,59
Research & Development Expenses	5,16	68,50
Sales Tax	9,31	2,64
	20,88,51	22,36,56

Selling and Distribution		
Packing and Forwarding	52,23	15,24
Freight and Handling	11,16,46	10,17,02
Commission to Selling Agents	52,01	41,67
Other Expenses	1,24,96	1,53,02
	13,45,66	12,26,95
Total	34,34,17	34,63,51
	0 1,0 1,17	(In Thousand Rupees)
	Year Ended	Year Ended
	March 31st, 1991	March 31st, 1990
Schedule 2.9		,
Interest and Financing Charges		
Interest on Medium Term Loan	1,45,59,04	1,63,52,14
Interest on Cash Credit, Export Packing Credit		
and Other Short Term Loans	3,53,95	1,54,61
Agency Fees	3,02	2,74
Exchange Variation	34,33,92	12,70,40
Total	1,83,49,93	1,77,79,89
<del>-</del>		(In Thousand Rupees)
	Year Ended	Year Ended
	March 31st, 1991	March 31st, 1990
Schedule 2.10	•	,
Pvovisions		
Relining Expenses	15,17,40	12,76,55
Sundries	-	3,95,40
Total	15,17,40	16,71,95
		(In Thousand Rupees)
	Year Ended	Year Ended
	March 31st, 1991	March 31st, 1990
Schedule 2.11		
Prior Period Adjustments		
Raw Materials Consumed	6,45	2,26,46
Power & Fuel	4,47	-
Repair & Maintenance	1,19,86	69,78
Other Manufacturing Expenses	14,24	11,47
Excise Duty	56,11	-
Employees' Remuneration & Benefits	1,74,86	1,74,11
Administrative, Selling & Distribution Exp. (Including Rs. 18		
& Rs. 38 for Statutory Auditors' Fees & Exp. Respectively)	39,73	29,24
Provisions	-	4,28,53
Depreciation	1,20	5,37,59
Excess Provision of Incomes Written Back	9,35,26	2,85,99
Total Expenses	13,52,18	17,63,17
Prior Peripod Adjustment of Sales	2,38	-
Other Income	-	1,57,26
Excess Provision of Expenses Written Back		
EXCESS FIGURIOUS OF EXPENSES WHITEH DACK	5.48.95	89.87
· · · · · · · · · · · · · · · · · · ·	5,48,95 5.51.33	89,87 2.47.13
Total Income Net Prior Period Adjustments	5,48,95 5,51,33 8,00,85	2,47,13 15,16,04

## Schedule 1.9

# **Notes Forming Part of the Accounts**

- 1. Statement of Accounting Policies and Schedules to the Accounts form part of the accounts.
- 2. (i) Value of Free hold Land represents advance payments made so far for acquisition through State Government. Land acquisition proceedings are still in progress and it is possible that further claims may be made upon the Company. Relevant title deeds for the acquired land have since been executed.
  - (ii) Lease hold land includes land for which lease documents have been executed and possession taken by the Company in respect of Mining leases.
  - (iii) Land taken by the Company includes Government land given on lease basis. Though the company has been permitted recently by the Government to use such lands, the formalities for legal transfer are yet to be completed. The value of lease hold land accounted for includes amounts deposited with the State Government and estimated liabilities provided for.
- 3. The estimated amount of contracts remaining to be executed on capital account and not provided for Rs.9816.82 lakhs (previous year : Rs.363.73 lakhs).
- 4. Contingent liabilities not provided for :

		Year ended	Year ended
		31st March, 91	31st March '90
		(Rs. in lakhs)	(Rs. in lakhs)
Claims	s not acknowledged as debt :		
(i)	OSEB for delayed payment surcharge	135.61	99.90
(ii)	OSEB for import of power (Net)	-	2156.14
(iii)	Sales tax on Works Contract under dispute (on supply portion)	4289.06	4289.06
(iv)	Contractors and others	3073.02	4684.43
(v)	Excise Duty on fabrication work done by contractors	539.08	222.69
		8036.77	11452.22

Besides the above a few more cases in respect of escalation and extra claims for works contracts have been referred to arbitration and the extent of such claims is not ascertainable at this stage.

5. Physical verification covering construction materials, stores and spare parts, Raw Materials etc. were carried out during the year/at the year end and discrepancies noticed on physical verification of such items as on the respective dates of verification with reference to the bin cards, are not of significant value and have been dealt with in the books of account.

In a few cases discrepancies between balances as per priced stores ledger and respective bincards as at 31<sup>st</sup> March '91 which are not significant are under reconciliation.

6. In accordance with Accounting Policy No. B-1, depreciation is charged in respect of following fixed assets based on the estimated useful life adopting straight line method which are different from the respective rates prescribed in the Schedule XIV of the Companies Act 1956.

Asset	Rate of Depreciation adopted
Factory Building including Storage Godown	5 %
Plant and Machinery	5 %
Red mud Pond (Earth work portion)	28.57 %
Ash Pond at Alumina Refinery	
(Earth Work portion)	13.34 %

Had the depreciation been calculated by applying in the rates specified in Schedule XIV of the Companies Act 1956, the charge for the year would have been more by Rs.18360.98 lakhs (previous year Rs.15626.51 lakhs) and consequently the accumulated depreciation as at 31<sup>st</sup> March 1991 is understated by Rs.48143.20 lakhs (previous year Rs.29782.22 lakhs).

- 7. Claims amounting to Rs.153 lakhs are pending with Customs Authorities in respect of payment made under protest/wrong assessment. The case is pending with the Tribunal of Custom, Excise and Gold control New Delhi, Necessary review will be made after pronouncement of judgement of the Tribunal.
- 8. Liability towards Sales Tax on works contracts amounting to Rs.1940.47 lakhs (previous year Rs.1938.42 lakhs) has been provided for and considered for capitalisaton, although the levy of such tax is disputed by the Company and appeals filed in different courts are pending disposal. Liability towards interest/penalty amounting to Rs.6502.25 lakhs (previous year Rs.7006.32 lakhs) imposed by Sales Tax Authorities has been shown as "Miscellaneous Expenditure". Necessary adjustment will be carried out after the decisions of the courts are received.
- 9. Whole-time Directors' Remuneration:

	(Rupees in lakhs)		
	Current	Previous	
	Year	Year	
Salaries	7.13	6.65	
Company's contribution to provident Fund	0.72	0.38	
Leave Travel concession	0.03	0.22	
Medical Benefits	3.84	0.34	
Other Benefits	0.98	0.78	
	12.70	8.37	

In addition, the whole-time Directors are allowed the use of Company's car for private purposes upto 9000 Kms per annum on payment of Rs.3000/- per annum.

10. Particulars of Employees in receipt of remuneration of not less than Rs.1,44,000/- (previous year Rs.72,000/-) per annum or Rs.12,000/- (previous year Rs.6,000/-) per month when employed for a part of the year.

	Employed throughout the Year		Employed fo Ye	•
	Current Year	Previous Year	Current Year	Previous Year
Number of Employees	4	204	-	3
Salaries & Wages (Rs/Lakhs)	6.45	176.59	-	2.25
Contribution to Provident Fund (Rs/Lakhs)	0.64	12.84	-	0.05
Total : Rs/Lakhs	7.09	189.43	-	2.30

# 11. Licensed Capacity, Installed Capacity and Production

	Licensed Capacity	Installed Capacity		Produ	ıction
	(same as last year)	Current Year			Previous Year
Products	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes
Bauxite	Not Applicable	2400000	2400000	1920000	2230040
Alumina Hydrate	Not Applicable	800000	800000	657350	768000
Calcined Alumina	Not Applicable	800000	800000	652485	739000
Aluminium Ingots	118000	98825	85000	94875	84323
				(644)	(5062)
Aluminium Wire Rods	100000	83750	62500	56455	50695
				(299)	(3440)
Electricity (in M.U. net)	Not Applicable	6000MW	600MW	2654	2533
					(49)

Note: 1. Installed capacities are as per project report.

3. Production in respect of Bauxite, Alumina Hydrate, Calcined Alumina and Electricity includes production meant for internal consumption also.

<sup>2.</sup> Production figures include Production during trial runs which are stated in the brackets.

#### 12. Stock and Sales:

	Openin	g Stock	Sales		Closing Stock	
	Qty.	Value	Qty.	Value	Qty.	Value
Products	(Tons)	(Rs./lakhs)	(Tons)	(Rs./lakhs)	(Tons)	(Rs./lakhs)
Bauxite	233113	205.00	7174	14.35	285135	302.24
	(240556)	(339.30)	(12205)	(23.50)	(233113)	(205.00)
Alumina Hydrate	14690	280.28	10152	666.05	9645	213.32
	(20376)	(401.61)	(22247)	(1577.89)	(14690)	280.28)
Calcined Alumina	59524	429.18	332798	18686.81	85642	2343.24
	(40771)	(1117.54)	(451103)	(32571.32)	(59524)	(1429.18)
Aluminium Ingots	8951	1900.45	98946	40792.58	4240	1124.31
	(1032)	(335.41)	(71963)	(27616.75)	(8951)	(1900.45)
Aluminium Wire Rods	931	199.78	56804	26692.86	273	65.97
	(61)	(20.21)	(46464)	(20330.53)	(931)	(199.78)
Electricity (in M.U. net)	-	-	251	1551.76	-	-
			(356)	(2480.74)		
Other Items	-	1728.29	-	-	-	1853.21
		(1683.79)				(1728.29)
Total		5742.98		88404.41		5902.29
		(3897.86)		(84600.73)		(5742.98)

Figures in brackets pertains to previous year. Sales do not include the sale of products out of trail operation. i) ii)

# 13. Expenditure incurred in foreign currency on cash basis :

		(Rupees/Lakhs
	Year Ended	Year Ended
	31 <sup>st</sup> March'91	31 <sup>st</sup> March' 90
Agency, Syndication and Management fees	2.59	2.95
Interest on Loan	15757.21	16311.27
Royalty to Aluminium Pechiney	460.73	316.45
Payment to consultants	317.48	342.39
Travelling Expenses	13.11	11.66
Books and periodicals,		
Advertisement, etc.	1.93	2.48
Total	16553.05	16987.20
	· · · · · · · · · · · · · · · · · · ·	

# 14. Earning in Foreign Currency on cash basis :

			(Rupees / Lakhs)
		Year Ended 31 <sup>st</sup> March '91	Year Ended 31 <sup>st</sup> March '90
i).	Export of goods	25441.85	39673.46
ii).	Interest on Bank Deposits	556.90	654.59
iii).	Others (Despatch Money)	5.32	-
	Total	26004.07	40328.05

# 15. Value of Imports Calculated on CIF basis:

		(Rupees / Lakhs)	
		Year Ended 31 <sup>st</sup> March '91	Year Ended 31 <sup>st</sup> March '90
i).	Raw Materials	3511.07	1929.19
ii).	Components, Spare Parts, Construction materials	1744.55	1589.71
	Total	5255.62	3518.90

# 16. Value of Raw materials and stores/spares and components consumed during the year.

Year Ended	0/	Year Ended	0/
31 <sup>st</sup> March'91	%	31 <sup>st</sup> March'90	%
Rs/Lakhs		Rs./Lakhs	

a) Raw Material

# 10<sup>th</sup> ANNUAL REPORT 1990-1991

i)	Imported		3056.40	32.63	2559.37	30.10
ii)	Indigenous		6311.57	67.37	5943.94	69.90
		Total	9367.97	100.00	8503.31	100.00
			Year Ended 31 <sup>st</sup> March'91 Rs/Lakhs	%	Year Ended 31 <sup>st</sup> March'90 Rs./Lakhs	%
b)	Stores, Spares	and components :				
i)	Imported		1697.62	33.80	1643.04	35.97
ii)	Indigenous		3324.73	66.20	2924.74	64.03
		Total	5022.35	100.00	4567.78	100.00

# 17. Social Amenities

					(R	s./Lakhs)
Expenses	Township	Education	Medical	Social Cultural Activities	Canteen	Total
Payment to Employees	28.38	-	66.84	-	8.03	103.25
Welfare Expenses	-	66.86	65.68	44.37	82.86	259.77
Material Consumed	1.39	-	16.62	-	-	18.01
Repair and Maintenance	57.13	-	0.97	-	0.09	58.19
Fuel, Power & Water charges	9.09	-	0.35	-	0.17	9.61
Misc. Expenses	-	-	-	5.68	-	5.68
Depreciation	209.32	8.38	8.39	10.05	3.30	239.44
Total	305.31	75.24	158.85	60.10	94.45	693.95
Less Income	51.63	-	-	-	-	51.63
Net Expenditure :	253.68	75.24	158.85	60.10	94.45	642.32
For previous Year :	247.46	66.91	122.76	48.53	76.00	561.66

- 18. Outstanding Letters of credit, guarantees and counter guarantees Rs. 1508.64 lakhs (previous year Rs.1204.27 lakhs)
- 19. Previous year's figures have been regrouped/rearranged wherever necessary to make them comparable with those of the current year.

P. Venugopala Rao	New Delhi	N.S. Parameswaran	R.B. Rao	K.V.B. Pantulu
Partner	11 <sup>th</sup> July, 1991.	Company Secretary	Director	Chairman-cum-
For and on Behalf of			(Finance)	Managing Director
Tej Raj & Pal	Bhubaneswar,			
Chartered Accountants	15 <sup>th</sup> July 1991.			

# **Statement of Accounting Policies**

## A. BALANCE SHEET

### Leasehold Land

Leasehold land, including development expenses thereon is amortised on straight line method over a period of 25 years in the case of Mines and 20 years in other cases.

## 2. Capitalisaton

- (a) In the absence of final bills/statement of accounts, capitalisation of assets has been done provisionally on the basis of technical assessment which may undergo change consequent to settlement of final bills/receipt of statement of accounts.
- (b) Interest on term loans incurred during the construction period upto start of commercial operation is capitalised.

# 3. Valuation of Inventory

- (a) Raw materials, stores, spare parts and loose tools are valued at weighted average cost. Finished goods are valued at the lower of cost or net realisable value. The cost excludes administrative overheads, interest, exchange variation and depreciation on exchange variation capitalised.
- (b) Intermediary products, like green and baked anodes are valued at direct material cost and anode butts, anode rejects etc. at lower of direct material cost or net realisable value.
- (c) Value of scrap is recognised in the accounts as and when sold.
- (d) In-process materials are not valued in view of the fact that the entire initial fill for the process has already been capitalised and the quantum thereof at the opening and closing date of the year remaining unchanged.

# 4. Conversion of Foreign Currency

- (a) The loan drawn in US Dollars from the Consortium of International Banks, Currency Swap from US Dollar to Swiss Franc unrealised export proceeds and Bank balances are reflected in terms of rupees after translation at the TT selling rate prevailing on the date of the balance sheet and other payments and export realisations at the actual rates prevailing on the respective dates of the transaction. The interest income is reflected in terms of Rupees at the average rate for each month.
- (b) Exchange variation relating to translation and transaction losses are identified separately. Net translation loss due to exchange variation on term loans raised to finance a part of the project cost is recognised and proportionate amount relating to capitalised value of Plant & Machinery is included in carrying amount of Plant & Machinery and balance included in capital work-in-progress. Depreciation on the amount so included in Plant & Machinery is provided prospectively over the residual useful life. All other losses on account of exchange variation are taken to Profit and Loss Account.

# 5. Incidental Expenditure during Construction

Revenue expenditure incurred during construction period i.e. prior to the relevant fixed asset being brought into use, is treated as expenditure incidental to construction and the same is being allocated along with direct capital expenditure on an appropriate basis to different assets.

# B. PROFIT AND LOSS ACCOUNT

## 1. Depreciation

- (a) Depreciation on the Main Plant and machinery and related Factory Building and Storage godown Is provided on straight line method based on the estimated useful life of the assets.
- (b) Depreciation on all other assets is provided on straight line method on the basis of rates specified in Schedule XIV of the Companies Act, 1956.
- (c) Items of Plant and Machinery valuing Rs.5000/- or less individually are depreciated at the rate of 100%.
- (d) Depreciation is charged on pro-rata basis in respect of assets added/deleted during the year.

# 2. Assets not belonging to the Company

Expenses of capital nature incurred on assets laid on land not belonging to the Company are depreciated over a period of five years.

# 3. Relining Expenses

Provision is made in the accounts at a rate per tonne of aluminium metal to meet the relining expenses of the pots based on technical estimate of the lining life of the pots as four years.

# 4. Miscellaneous Expenditure

Preliminary Expenses, Expenditure for Raising Capital and Training Expenses are written off equally over a period of five years from 1987-88. Balance of Mines Development Expenditure as at 31<sup>st</sup> March, 1987 is amortised equally over a period of five years from 1987-88 and such expenditure incurred subsequent to 31<sup>st</sup> March, 1987 is charged to Profit and Loss Account in the year it is incurred.

# 5. Pre-Paid Expenses and Prior Period Expenses/Income

Income/Expenditure relating to prior periods and prepaid expenses which do not exceed Rs.25,000/- in each case are treated as income/expenditure of the current year.

# 6. Gratuity

Liability accruing from year to year on account of service gratuity is discharged by paying requisite premium on LIC Policy taken under Group Gratuity Scheme.

# 7. Excise Duty

Excise Duty is accounted for on despatch of products from the factory.