

**MINISTRY OF MINES**

**CHAPTER V**

**National Aluminium Company Limited**

**Acquisition and operation of Rolled Products Unit (RPU)**

***Highlights***

While acquiring (March 2000) International Aluminium Products Limited, a 100 *per cent* Export Oriented Unit (EOU) to manufacture rolled products promoted by Mukund Limited, National Aluminium Company Limited (Company) did not adequately consider the problems consequent on takeover of a partially completed unit with imported equipment lying in prolonged storage.

*(Paras 5.2.1 and 5.2.2)*

The Company entered the rolled product segment through acquisition route but its performance in the downstream segment was not up to the mark.

*(Para 5.2.3)*

With the installation of four Rolled Products Unit (RPU) casters (52000 MT) in addition to the existing two Smelter Casters (26000 MT), there was a surplus capacity build-up of casting to the extent of 56000 MT.

*(Para 5.2.3)*

The DPE guidelines framed by the Government of India (GOI) stated that any project with cost exceeding Rs.300 crore required prior approval of the GOI. Though the project cost exceeded Rs.300 crore, prior approval of the GOI was not obtained.

*(Para 5.3.1)*

The Company's failure to fully commission the plant in time and absence of a competitive marketing strategy for rolled products led to low capacity utilisation.

*(Para 5.4)*

The inability of the RPU to export would call for payment of duty of Rs.78.35 crore because of the EOU status of RPU. In the absence of any significant export order in hand coupled with technically deficient and incomplete equipment, the Company was unlikely to fulfil its export commitment

*(Paras 5.5.3 and 5.5.4)*

As the Company failed to generate any significant sales volume, Rs.361.74 crore invested (September 2006) towards acquiring and commissioning of the unit remained unproductive.

*(Paras 5.5.2, 5.5.3 and 5.6)*

## **Recommendations**

- Acquisition and diversification of product lines should be consistent with the long term corporate policy of the Company.
- Resource planning, mobilisation and support of foreign technical experts have to be planned well in advance. Necessary contractual and other formalities should be completed in advance to facilitate prompt commissioning.
- The project cost needs to be correctly estimated beforehand taking into consideration future eventualities like exchange variation, escalation and other contingencies to avoid slippage in implementation schedule and project cost.
- A marketing plan for various categories of rolled products including pricing, promotional campaign and advertising support needs to be put in place at the earliest. Target markets for export possibilities need to be identified and prioritised for export of rolled products.

### **5.1 Introduction**

**5.1.1** The National Aluminium Company Limited (Company) was incorporated in January 1981 to set up an integrated Aluminium project backed by captive mines and captive power plant. The original capacities of the Bauxite mine, the Alumina Plant, the Smelter Plant and the Captive Power Plant (CPP) were expanded between 1999 and 2004. The Company installed two casters of 13000 MT capacity each in Smelter plant for producing cast strips in 1999 and 2001 respectively. The Company's turnover and profit after tax (PAT) during 2005-06 were Rs.5287.36 crore and Rs.1562.20 crore respectively.

The Company acquired (March 2000) International Aluminium Products Ltd (IAPL). IAPL had been promoted by Mukund Limited, Mumbai as a 100 *per cent* Export Oriented Unit (EOU) at Angul in Orissa to manufacture 50000 MT of Cold Rolled Aluminium Coils and Sheets per annum. The total cost of the project estimated at Rs.228.50 crore was proposed to be financed by equity share capital of Rs.118.56 crore (promoters Rs.53.72 crore, others Rs.64.84 crore) and buyers credit of Rs.109.94 crore from EFIBANCA, Italy. Consequent upon amalgamation of IAPL with the Company, IAPL was renamed the Rolled Products Unit (RPU) and the EOU status was retained.

The major plant and machinery required for the RPU were four melting furnaces, four holding furnaces, four continuous thin strip casters, one Cold Rolling Mill (CRM) and three Annealing Furnaces capable of producing sheets with minimum thickness of 0.12 mm and maximum width of 1650 mm. The entire technology of strip caster and CRM was to be supplied by FATA HUNTER on a turnkey basis.

#### **5.1.2 Scope of Audit**

The Performance audit covered the acquisition of the RPU, its commissioning and operation alongwith marketing of rolled products during the period from 2000-01 to 2005-06.

#### **5.1.3 Audit objective**

The audit objective was to examine whether:

- (i) The acquisition of RPU was in line with the long term Corporate Policy of the Company;

- (ii) The RPU could be commissioned in time at the estimated appraised cost;
- (iii) The RPU could be operated efficiently to maximise production of value added products;
- (iv) Proper marketing strategy was formulated and followed for marketing value added products.

#### **5.1.4 Audit criteria**

Performance of the RPU was assessed broadly with reference to the following parameters for evaluation of activities connected with the acquisition and operation of the RPU.

- Identification of downstream products as reflected in the Corporate Plan/Annual MOU.
- Commission schedule and cost as assessed at the time of acquisition and its subsequent revision.
- Installed Capacity in the Draft Project Report and as per Annual Memorandum of Understanding.
- Capacity Utilisation of existing downstream products.
- Export obligation commitment.

#### **5.1.5 Audit methodology and acknowledgement**

The draft Performance audit report was prepared based on discussion and interaction with the Management and scrutiny of documents such as Board Agenda and Minutes, Annual Reports, Project Appraisal and the exit conference (8 September 2006) and issued to the Management on 15 September 2006.

Audit acknowledges the cooperation and assistance extended by the Company at various stages of the Performance audit.

### **5.2 Acquisition**

#### **5.2.1 Take-over decision**

IAPL project started in 1995 and was scheduled to be completed by December 1999 at an estimated cost of Rs.228.50 crore. The project's requirement of liquid metals upto 30000 MTPA<sup>♦</sup>, electrical power upto 14 MW and 180 cubic metre of water per hour were to be supplied by the Company as per the agreement executed in April, 1995. The Company also had an option to participate in the equity of IAPL to the extent of 26 *per cent*.

The Board of Directors of the Company initially approved (November 1995) subscription to 11 *per cent* equity involving Rs.13.04 crore and subsequently increased (December 1996) this to 26 *per cent* involving Rs.30.82 crore. The decision of the Company regarding acquisition of 26 *per cent* share in the equity capital of IAPL was approved by the Ministry in January 1998. Mukund Limited approached the Company in May 1998 with a request for stronger and greater involvement in IAPL with expanded management role and participation in it as they would prefer to concentrate on their core business of steel. The Company's internal committee constituted to consider various aspects of the

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<sup>♦</sup> *Metric Tonnes per annum*

acquisition recommended (January 1999) 100 *per cent* takeover of IAPL. Based on the recommendation, the Company engaged MECON Limited (i) to validate the data given by Mukund Limited and IAPL to the committee constituted by the Company; (ii) to make an independent and realistic appraisal of the project; and (iii) to give a firm recommendation on the economic viability of the project after considering all relevant factors.

Based on the recommendations of MECON Limited, the Board gave its in principle approval for taking over IAPL in April 1999. Thereafter, M/s A.F. Ferguson was appointed for review of financial statements of IAPL and assessment of completion cost of the project. M/s A.F. Ferguson assessed (June 1999) the completion cost of the project at Rs.284.62 crore assuming a completion period of 12 months. The Board of directors approved the acquisition in April, 1999 and the project was formally taken over in March 2000 without seeking approval of the Government of India (GOI). The Management stated (October 2006) that as the Board of Directors had already accorded its approval in principle and the amount arrived at by M/s A.F. Ferguson was within the powers of the Board to sanction, approval of the GOI was not necessary at that point of time. However, the fact that the completion cost of the project had increased considerably due to takeover in March 2000 and had exceeded the limit of Rs. 300 crore necessitating approval from the GOI. This aspect was overlooked by the Company. (refer to para 5.3.1).

### ***5.2.2 Status of the project at the time of takeover***

The whole package of imported equipment for the project comprising casters, rolling mill and furnaces received in 1996-97 were either stored on site or in warehouse at Kolkata in packed condition. Major civil works of flooring and concreting for equipment foundation were pending. The construction work at site which had started in 1995 had stopped since November 1998 due to financial constraints faced by IAPL. The performance guarantee tests of major equipment could not be conducted by the Company since warranties of major equipment had expired prior to takeover. While ascertaining the project cost and completion schedule the Company had not taken into account the fact that Mukund Limited had made payments to suppliers and civil contractors without ensuring completion of their work. The fact that all civil, mechanical and electrical contracts were awarded to a single contractor by the erstwhile management was not given due cognizance by the Company. The contractors did not complete their job after takeover by the Company and they were dealt with as per terms of the contract between the Company and IAPL, executed at the time of takeover. The renegotiation of civil, mechanical and electrical contracts caused delay of around one year in execution of various works after takeover.

### ***5.2.3 Performance in downstream metal segment***

At the time of acquisition of partially completed RPU in March 2000, the Company's performance in the downstream segment was low (ranging from 4.81 *per cent* to 55.74 *per cent* of installed capacity) as indicated below:

**Statement showing capacity utilisation of downstream products**

Product	Installed capacity (MT)	Capacity (1994-95 to 1999-2000) percentage	Utilisation (1999-2000)	Capacity utilisation (2000-01 to 2005-06) percentage
Billet	30000	19.46 to 41.50		18.15 to 56.48
Wire rod	100000	36.34 to 55.74		32.79 to 67.32
Strip coil	13000/26000	4.81 (1999-2000)		13.93 to 25.01

It could not fully utilise its existing billet, wire rod and strip casting production capacities. Other primary producers in the private sector, however, made full utilisation of their downstream facilities. During 2003-04 to 2005-06 sales of downstream products (billets, wire rods and strip coils) in the metal segment constituted 22 per cent to 27 per cent of the total metal (Aluminium) sales. The Company had two Smelter Casters of 13000 MT capacity each of its own. In addition it acquired four RPU casters (13000 MT each) from IAPL which were finally installed in 2005. Thus, the total casting capacity with the Company became 78000 MT per annum. The planned annual production (2007-12) was 20000 MT per annum for rolled products and 2000 MT per annum for strip castings. This meant that the Company had an excess casting capacity of 56000 MT per annum. Considering that, the Company had spent more than Rs.63 crore in acquiring its own casters (one in 1998 and the other in 2001), acquisition of the additional capacity of 56000 MT per annum had clearly involved unfruitful expenditure in excess of Rs.100 crore for the Company. The expenditure actually incurred by the Company in acquiring the four casters could not be ascertained in audit.

The Management stated (October 2006) that the Company was new to the downstream segment and as such would take some time to stabilise and improve capacity utilisation. However, no significant improvement was discernible in the level of production of existing strip coil (downstream segment) even after eight years of commissioning of the production facility.

**5.2.4 Downstream augmentation policy**

The Company's broad strategy as defined in the Corporate Plan (1995-2005) was to first consolidate the Company's operations by capacity utilisation, maximising operational efficiency and then go for expansion and diversification. Such diversification in the metal sector included strip casting facility and equity participation in IAPL at Angul for making rolled products. In the Corporate Plan for 2007-12 prepared by the Company, substantial increases in upstream production (alumina and aluminium) were planned without any corresponding growth in downstream facilities for rolled products. Though the Management stated (October 2006) that the acquisition of IAPL was decided on stand alone basis considering all pros and cons, the acquisition did not appear to be exactly in line with the long term corporate policy of the Company.

**5.3 Commissioning**

**5.3.1 Increase in project cost and approval of the GOI**

Based on the anticipated completion of the project by March 2000 i.e. within 12 months of take over (April 1999) M/s A.F. Ferguson estimated (June 1999) the project cost at Rs.284.62 crore\*. The Company did not consider the fact that with the acquisition

\*Excluding Rs.7.15 crore of leased assets

actually taking place in March, 2000 the project completion schedule would be extended by at least another 12 months with concomitant increase in project cost. The increase in project cost, largely on account of period cost<sup>▼</sup> and exchange variation was Rs.22.16 crore. This increase took the project cost beyond Rs.300 crore in March 2000, *i.e.*, at the time of takeover. The DPE guidelines stated that any project with cost exceeding Rs.300 crore required prior approval of the GOI. But in this case, prior approval of the GOI was not obtained. The project cost estimated by M/s A.F.Ferguson at Rs.284.62 crore increased to Rs.326.33 crore in October 2000 and was forwarded to the Ministry for approval in November 2000. Proposal for further revised project cost of Rs.355.81 crore at May 2001 price level, was forwarded to the Public Investment Board in July 2001 and approval of the Ministry for Rs.330.81 crore eliminating the cost of balancing equipment and civil works amounting to Rs.25 crore was obtained in March 2002. The final cost estimate of the Project which shot up to Rs.398.36 crore due to delays in execution was approved by the Ministry in January 2005 (**Annexure-8**).

### **5.3.2 Delay in arranging mode of payment and finalising work programme**

The major equipment of the project included one cold rolling mill and four casters supplied by FATA HUNTER (FATA) of Italy. In terms of the original agreement between FATA and IAPL, 85 *per cent* of the price was to be paid by drawing a loan from an Italian financial institution, EFIBANCA which was granted in January 1995. At the time of takeover of IAPL by the Company in March 2000, a portion of the loan remained undisbursed. The cost of services on erection, supervision and commissioning payable to FATA experts was to be met from this undisbursed amount. To contain the project cost, the Company decided (July 2000) to suspend drawal of the undisbursed amount of the loan. Suspension of the loan agreement by IAPL implied that the contractual obligation of FATA would also be suspended unless alternative terms of payment acceptable to both the parties were arranged. The Company realised the necessity of arranging alternative mode of payment only at the end of October 2000 and amended the contract in February 2001 with modification in man-month rate and mode of payment. The supervision activities by FATA required a program encompassing erection, startup and commissioning to be communicated to them to plan the arrival of foreign experts. Though FATA had requested in January 2000 for the programme, the Company provided it only in September 2001 after finalising the mode of payment. Without the work programme, arrival of technical experts of FATA and their subcontractors could not be properly scheduled. It caused increase in man-months and 98.81 man months were consumed toward technical services against 50 man-months provided in the agreement with FATA. The cost, therefore, increased from Rs.3.95 crore in 2001-02 to Rs.9.27 crore at the end of 2005-06 resulting in additional expenditure of Rs.5.32 crore. The availment of the undisbursed portion of the loan could have avoided disruption in the completion schedule by ensuring availability of foreign experts.

The Management stated (October 2006) that without obtaining approval from Public Investment Board, incurring further expenditure was not feasible. The above contention was not tenable as expenditure was being incurred since takeover and Rs.293.30 crore was spent by the Company till March 2001. Thus, it was not a fact that expenditure was not being incurred pending Public Investment Board's approval.

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<sup>▼</sup> *Finance charges, pre-operating expenses*

### 5.3.3 *Delayed commissioning of equipment*

The technology and the process of manufacture of aluminium alloy strip/sheet through continuous thin strip casting route involved the stages of melting and alloying of hot metal, refining and continuous thin strip casting, cold rolling, annealing, slitting and cut-to-length line. The Company prepared a bar chart detailing completion schedule for all equipment to obtain approval for Revised Cost Estimates-I. Although there was slippage in execution of the project the Company had not revised the scheduling of various activities in consonance with the revised phasing of expenditure for proper monitoring and early completion of the project. Considering the schedule for commissioning of major equipment as per Project Appraisal Report prepared by MECON Limited there were delays of 15 to 56 months in actual commissioning as depicted in **Annexure-9**.

The Company commissioned only Cold rolling Mill (CRM) and Roll Grinding Machine (RGM) in March/April 2002. The commissioning of CRM was dependent upon the installation of RGM. Delay in completion of civil works and deterioration of components due to prolonged storage necessitated replacement and delayed the installation of RGM with consequent delay in commissioning of CRM till March 2002. The Annealing Furnaces II and III, Casters III and IV, Melting and Holding Furnace IV and the Slitting and Cut-to-length lines were commissioned by engineers of the Company as foreign experts were not available (six to nine years after supply of the equipment). Thus, as discussed in the preceding paras (para 5.3.1 to 5.3.2) the Company's inaccurate estimation necessitating repeated revision of project cost; consequent fund constraints; renegotiation of civil, electrical and mechanical contracts after take over and failure to finalise in time the mode of payment and work programme of technical experts had increased the project cost and held up the erection and commissioning of equipment. The project with an initially appraised cost of Rs.284.62 crore and scheduled completion by March 2001 was thus actually commissioned by December 2005. However, the precisioning equipment were commissioned in May 2006. The total cost incurred till September 2006 was Rs.361.74 crore.

### 5.4 *Capacity utilisation*

The RPU (45,000 MT of rolled products and 5000 MT of cast strips) was acquired as a 100 per cent EOU in March 2000. As per the production process (refer to para 5.3.3) CRM was to be fed by strips generated from four strip casters. While the CRM was commissioned in March 2002, the strip casters were commissioned in phases between January 2005 and November 2005. Hence, the CRM was fed by cast strips sourced from the two existing smelter casters. The products, however, were not marketable as commissioning of annealing furnace and other facilities was held up due to deletion of Rs.25 crore from the revised cost (refer to Para 5.3.1) which resulted in commercial utilisation of CRM only from November 2002 i.e. eight months after its commissioning.

Though the production plan envisaged in the M/s A.F. Ferguson Report indicated capacity utilisation of 20 *per cent* in the first year and 75 *per cent* in the third year, the capacity utilisation of CRM during 2003-04, 2004-05 and 2005-06 was 5.91 *per cent*, 1.90 *per cent* and 11.20 *per cent* respectively. The production of rolled products during 2003-04 to 2005-06 varied between 858 MT and 5040 MT. The Company attributed low capacity utilisation of the CRM to technical deficiency of equipment stored since 1996-97, obsolescence of some of the components and lack of orders. Audit observed that the Company had not prepared any production plan based on operational constraints for

optimum capacity utilisation. Instead it contended (October 2006) that interim production between June 2002 and November 2005 should not be considered for capacity utilisation. The above contention was not acceptable in view of the fact that the Company had declared commencement of commercial production from June 2002. In fact, absence of competitive marketing strategy for rolled products coupled with lack of concerted efforts by the marketing and production departments were also responsible for low capacity utilisation. The Company while admitting this further stated (October 2006) that co-ordination meeting between the production and the marketing departments were being held to sort out problems.

## 5.5 Marketing

### 5.5.1 Manufacturers in India

Hindalco, the leader in the domestic market in Value Added Product Segment (rolled products, extrusions and foils) achieved more than 95 per cent capacity utilisation (rolled products) during 2003-04 to 2005-06. Its existing rolled product capacity is 200000 MT. Value Added Products (VAP) accounted for 47.3 per cent and 49.4 per cent of aggregate metal sales of Hindalco during 2004-05 and 2005-06 respectively. Installed capacity of the Company in respect of aluminium and rolled products was 345000 MT and 45000 MT respectively. During 2005-06 the Company produced 5040 MT of rolled products representing only 1.40 per cent of metal production. In terms of turnover (2005-06) rolled products represented only 1.41 per cent of total aluminium sales.

### 5.5.2 Limited marketing efforts

The study and analysis of global demand-supply scenario was conducted by M/s A.F. Ferguson & Company in 2001. No further market survey was carried out by the Company. This coupled with only a passing reference to marketing strategy for rolled products in its Marketing Guidelines (July 2005) indicates the low priority accorded to marketing of rolled products.

Since launching of rolled products in the domestic market, the Company restricted itself to marketing of products which required lower market development efforts. However, the quantum of sales made by the Company over the last 3-4 years indicated that the marketing efforts were inadequate and failed to significantly increase the sales volume.

<b>Cold Rolling Mill (figures in MT)</b>		
<b>Year</b>	<b>Production</b>	<b>Sales</b>
2003-04	2660	2738
2004-05	858	777
2005-06	5040	4163

The Management stated (October 2006) that RPU being an EOU the thrust was not on domestic sales of rolled products and increase in share of the domestic market. Domestic sale was limited and depended on permission from competent authority. This is negated by the Company's long term plan which envisaged 50 per cent sales in the domestic market. Further, it was observed that the export order obtained for 36 MT only (July 2006) and the deemed export (130 MT in July 2006) made were not for products requiring high level of precision. Such orders procured after expiry of Domestic Tariff Area (DTA) permission indicated that efforts for export were made only under



compelling circumstances. The Company further stated (October 2006) that export of rolled products commenced at the appropriate time and without commissioning the precisioning line, entry into export markets with whole range of products was not possible. The fact remained that despite commissioning of precisioning equipment, the Company had not prepared any comprehensive work plan for export of rolled products on a commercial scale and marketed only a single variety of alloy till September 2006.

### **5.5.3 Duty liability and export obligation**

The Company obtained permission for sale in the Domestic Tariff Area (DTA) and products were sold in the domestic market since launching the product commercially in November 2002. It has availed of duty exemption of Rs.66.02 crore for importing of capital goods against sales of Rs.99.11 crore (upto June 2006) in domestic market. The Company therefore, has to fulfil the obligation of selling in export markets twice the amount sold in the domestic market. As indigenous materials were also procured without payment of excise duty of Rs.12.33 crore, the total duty liability is Rs.78.35 crore. The DTA permission expired in May 2006.

The Company stated (August 2006) that after some of the important online equipment at RPU, which enhanced the quality of the product, had been taken into operation recently, physical export activities had been initiated. It was observed that the Company secured the first export order only in July, 2006 i.e. after the DTA sale permission expired in May 2006. The Company stated (October 2006) that export of rolled products was initiated at appropriate time and was in no way related to expiry of permission. It was noticed in audit that there were neither any existence of specific strategy/plan for export prior to expiry of permission for DTA sale nor any significant export order for the Company to generate adequate revenue to offset the duty liability of Rs.78.35 crore and to meet the export obligation of Rs.198.22 crore.

### **5.5.4 Marketing practice**

The Company had been exporting primary aluminium products (alumina and aluminium) through the process of tendering and also on 'one to one basis'. In line with that, the Company envisaged that for rolled products export they would go for tendering at the initial stage followed by sales on 'one to one basis', if required. Sale of rolled products in the domestic market was being done by directly contacting the prospective customers through regional sales offices without any distributors' network. As the Company is a new entrant in the rolled product segment dominated by well-established producers like Hindalco and Balco, the existing marketing structure may not be adequate for enabling better utilisation of capacity built through acquisition of IAPL. This was also reflected in the Corporate Plan (2007-12) envisaging capacity utilisation of 40 *per cent* of the RPU in the 12<sup>th</sup> year of acquisition. The Management stated (October 2006) that all efforts would be made to achieve a respectable capacity utilisation in line with their competitors.

## **5.6 Conclusion**

The RPU was acquired in March 2000 as a 100 *per cent* EOU, not fully consistent with the long term Corporate Policy of the Company and products were launched in the domestic market in November 2002. Commissioning of all equipment took more than five years resulting in time and cost over run. The Company was allowed to sell in the DTA pending stabilisation of the products for overseas market. Till March 2006, the Company could not export any rolled product and the permission for sale in domestic

market expired in May 2006. The inability to export would call for payment of duty of Rs.78.35 crore because of the EOU status of RPU. In the absence of any significant export order in hand and with equipment that are not technically very sound, the Company was unlikely to fulfil its export commitment. As the Company failed to generate any significant sales volume, the amount of Rs.361.74 crore invested (till September 2006) on acquisition and commissioning of the unit remained unproductive.

Going by the Company's production plan (2007-12), non-stabilisation of product quality over a period of around four years (refer to Paras 5.4), lack of market competitiveness due to its belated entry into the market dominated by the established private players (refer to Para 5.5.1) and its performance in other downstream products (refer to para 5.2.3), there seems to be little possibility for extensive utilisation of RPU in future.

The matter was reported to the Ministry in December 2006; reply was awaited (January 2007).