

CHAPTER VIII: DEPARTMENT OF FERTILIZERS

National Fertilizers Limited

8.1 Marketing of products

Introduction

National Fertilizers Limited (Company) incorporated in 1974 had an annual installed production capacity of 32.30 lakh metric tonne (MT) of urea as on 31 March 2010 in its five production units located at Nangal, Panipat, Bhatinda and two at Vijaipur. The Company ranked as the second largest producer of urea in the country with a market share of 16.8 *per cent* of total urea production. Turnover and profit of the Company were ₹ 5091 crore and ₹ 259 crore respectively for the year 2009-10.

Marketing Operations

Marketing of fertilizers is looked after by the Central Marketing Office (CMO) of the Company. The CMO co-ordinates and oversees sale of fertilizers through its wide marketing set up of three Zonal offices at Chandigarh, Bhopal and Lucknow which cover the 15 States of Northern and Western India. Under the Zonal Offices there are State Offices, Area Offices and District Offices.

The Company's main product is Nitrogenous fertilizer i.e. urea. It also produces Industrial Products viz. Methanol, Ammonium Nitrate, Nitric Acid etc. and trades in other nutrient fertilizers namely Muriate of Potash. The Company sold 33.77 lakh MT of urea during 2009-10. Dispatch of fertilizers is made by the units as per movement plan given by Department of Fertilizers and the requirement of States. The Company marketed its products in 2009-10 through a combination of private dealers (77.10 *per cent*) and institutional buyers (22.90 *per cent*).

Audit objectives

The study was conducted to examine whether:

- marketing/sales functions were carried out with economy, efficiency, and marketing/sales cost was contained within the norms fixed by Fertilizers Industry Co-ordination Committee; and
- marketing operations like handling and transportation, warehousing, dealers' appointment and functioning were carried out as per the prescribed policies of the Government of India and in terms of Marketing Manual.

Scope of audit

Audit test checked the marketing operations of the Company involving handling and transportation of urea, warehousing, functioning of dealers and pricing scheme for grant of subsidy for the last three years upto 2009-10. Checking of the entire operations of CMO and functioning of 505 out of 5063 dealers and 33 out of 335 handling and transportation contracts of Chandigarh, Bhopal and Lucknow Zonal offices were carried

out. Audit was conducted during the period 21 April 2010 to 31 May 2010 and 12 July 2010 to 30 July 2010.

Audit findings

The Company through its extensive network had achieved sales at 100 *per cent* of its installed capacity. The Company could improve its performance and achieve better results by taking corrective action on the audit findings discussed in the succeeding paragraphs:

8.1.1 Marketing/sales functions: Efficiency and cost effectiveness:

8.1.1.1 Under recovery of marketing cost

As per New Pricing Scheme of Fertilizers Industry Co-ordination Committee (FICC), effective from 1 October 2006, selling expenses were reimbursed subject to a ceiling of ₹ 138 per MT for eighth pricing period. Audit observed (March 2010) that the Company's marketing expenses ranged between ₹ 151.94 and ₹ 155.82 per MT on sale of urea during 2007-08 to 2009-10 against the FICC norms of ₹ 138 per MT at which it could get re-imburement. An analysis of the marketing expenses on sale of urea revealed that increase in rake handling expenses by 6.6 *per cent* and 5.5 *per cent* during 2008-09 and 2009-10 and increase in warehouse handling expenditure by 7.16 *per cent* during 2008-09 as compared to 2007-08 contributed to the increase in marketing expenses.

Thus, failure of the Management to monitor and control operational expenses during 2007-08 to 2009-10 resulted in under recovery of ₹ 15.04 crore on dispatch of 99.42 lakh MT urea.

The Management stated (June 2010) that the increase was on account of increase in salary and wages and that operational expenditure was regularly monitored and efforts were made to optimize the expenditure. Also marketing cost re-imburement was fixed in the year 1997 and was not revised since then.

The Management's reply is not convincing as there was under recovery of actual marketing expenses to the extent of ₹ 15.04 crore even after excluding non-controllable expenditure of salary and wages (Basic, Dearness Allowance, City Compensatory Allowance, House Rent Allowance and Provident Fund) which are claimed separately as a part of retention price. Thus, inefficiency in control of marketing expenses led to non-containment of the same within the FICC norms. Further, the marketing cost re-imburement rate was based on the cost data of 1999-2000 and not 1997 as stated in the reply.

8.1.1.2 Unviable import of Muriate of Potash

With a view to strengthen its product line by transforming from single product to multi products, the Company decided to procure Muriate of Potash (MOP) for the Rabi season 2009-10. MOP is also covered under Fertilizer Monitoring System (FMS) and its movement is determined on a monthly basis. The proposed quantity of 50,000 MT MOP was to be procured at Kandla Port through two vessels of 25,000 MT each. The Company adjudged timely arrival of material during October 2009 as crucial while issuing NIT. Delay in receipt of material at port beyond October 2009 was not to be compromised. Accordingly the Company imported 61115.73 MT of MOP in two vessels at Kandla port during October and November 2009 and the entire stock was distributed from the port

itself by rail/road during October 2009 to February 2010. The Company sustained a loss of ₹ 86 lakh against the projected gain of ₹ 122 lakh i.e. ₹ 244/PMT.

Scrutiny of records revealed that decision of the Company to import MOP was not prudent as normative interest income on the unavailed credit period was treated as operative income while projecting gain. Also delay in imports resulted in carrying over, cost of unsold inventory beyond November because requirement of MOP was largely in October/November in the major part of Northern India.

The Management stated that the total profit earned was about ₹ 2.07 crore including the exchange rate benefit of ₹ 1.60 crore and remaining was operating profit. The Management's reply was not acceptable as the above profit also included ₹ 1.33 crore as prepayment discount which did not form part of operative income. Thus, Management's lapse in not evaluating the profitability based on prudent financial practice resulted in a loss of ₹ 86 lakh. The Management further added that the entire stock was marketed across the country during 2009-10 depending on geographical need. The Management's reply was not acceptable because the major demand of MOP in North India was in October/November, whereas the same could be disbursed completely only by February 2010.

8.1.1.3 Extra expenditure due to change in sales terms

At the start of a season (Kharif/Rabi), standard sales terms covering dealer's margin, payment terms, cash rebate, interest on delayed payment, security and secondary freight for sale of urea are communicated by CMO to all the Zones. Within these standard terms, the field offices send proposals for sales terms, for sale of urea to private traders and institutional traders of different states under each zone for a particular month for approval by the competent authority for that month only. A test check of records for sales to private dealers and institutional dealers for both 'Rabi and Kharif' seasons during 2007-08 to 2009-10 revealed that:

- Ex-post facto approval was accorded to Markfed in Chattisgarh State for allowing average credit period of 110 days instead of the earlier approved average credit period of 60 days. This was beyond the approved parameters of credit period for institutions resulting in excess financial burden of ₹ 25.62 lakh on sale of 30,050 MT urea. Further, Markfed, Chattisgarh was allowed higher credit period of 105 days during March 2009 on sale of 15,000 MT of urea, resulting in extra expenditure of ₹ 23.04 lakh.
- As against the sales terms of urea to institutions (April 2009) for the States of Haryana, Rajasthan, Himachal, Jammu & Kashmir during Kharif 2009, the Company allowed handling charges, special rebate, storage charges, freight and cash rebate for Kharif 2009 to Hafed in Haryana State. This resulted in extra expenditure of ₹ 67.08 lakh.

The Management stated that proposals for changes in sales terms were given ex-post facto approval by the highest authority in order to increase sales.

The Management's reply is not acceptable as changes in sales terms were made frequently in violation of approved parameters and it did not result in increase in sale of urea during the year.

Thus, offering better sales terms beyond the approved parameters caused extra financial burden to the Company amounting to ₹ 115.74 lakhs without any increase in sales.

Recommendation

The Company should ensure that the standard sales terms parameters for each season are complied with and frequent amendments to the same are avoided.

8.1.1.4 Sale of industrial products below cost of production

The Company produces and sells Industrial Products (IP) which are cost plus items like Methanol, Ammonium Nitrate, Nitric acid etc. Products like Liquid Oxygen, Liquid Nitrogen and Sulphur do not have a cost of production and are by-products, which are also marketed. The cost plus items are sold against the parameters falling within the price range as approved from time to time. For some products annual contracts are drawn up for the sale of quantity produced like Sulphur, Liquid Carbon-dioxide etc. Prices of industrial products are generally fixed for a certain period comprising six to nine months which are reviewed quarterly in view of frequent changes in the market rates of the products. Audit observed that products like Ammonium Nitrate (Lumps), Ammonium Nitrate (Melt), Methanol, off grade Methanol and Nitric Acid (60 *per cent* for distant market) were marketed at a rate which was below the cost of production of these products.

Thus, the Company sustained a loss of ₹ 7.06 crore on sale of 19,266 MT of Ammonium Nitrate (Lumps) (₹ 4.42 crore), 2710 MT of Ammonium Nitrate (Melt) (₹ 0.68 crore) and 30,969 MT of Nitric Acid (60 *per cent*) (₹ 1.96 crore) during 2007-08 to 2009-10.

The Management stated that the cost of production of IP products was considerably high due to higher fixed cost but there was positive contribution. Further, after changeover of feedstock from oil to gas, production of all IP products would be discontinued except Nitric Acid, Ammonium Nitrate (Lumps and Melt) and Sodium Nitrate/Nitrite.

The Management's reply is not acceptable as the Company had to reduce selling price of IPs in order to compete with stiff competition from low cost producers in the market. Hence, the Company was unable to realise full cost of production and incurred a loss of ₹ 7.06 crore.

8.1.2 Marketing operations:

8.1.2.1 Grant of credit in excess of credit limits

As per clause 6.5 of Marketing Manual one time maximum credit limit for each dealer is fixed as per laid down procedure. The sales terms for urea specify that material would be supplied against cash payments or 100 *per cent* secured credit limits only. Security can be either a bank guarantee or demand draft. Scrutiny of records relating to Lucknow, Bhopal and Chandigarh Zones of the Company for the months of March 2009, August 2009 and January 2010 revealed that the Company allowed excess credit to 27 parties resulting in an outstanding amount of ₹ 1.79 crore, out of which ₹ 1.17 crore could not be recovered as these cases were sub-judice. The Company not only allowed credit to the parties in excess of their credit limits but also allowed credit to the parties who had not provided any bank guarantee or Central Stockist Scheme security.

The Management while accepting the facts replied (June 2010) that excess credit was sometimes allowed to the parties when urea rakes were placed at the end of the month for disposal/sale of urea to dealers from the rake point itself.

The Management's reply is not convincing as excess credit granted without any security resulted in blocking of ₹ 1.17 crore.

8.1.2.2 Expenditure on secondary freight

The Government of India, Department of Fertilizers, introduced (July 2008) a new "Policy for Uniform freight subsidy" on all fertilizers under the New Pricing Scheme Stage III, to be implemented retrospectively w.e.f. 1 April 2008, under which secondary freight as admissible under the old scheme was discontinued. A review of freight subsidy revealed that the Company incurred secondary freight expenditure of ₹ 8.34 crore which was allowed to 1396 out of 1603 dealers during 2008-09 (July 2008 onwards) and to 692 out of 1893 dealers during 2009-10, for which no subsidy was allowed as per the New Policy of Uniform Freight Subsidy. Approval of the field unit proposals for retaining the secondary freight element in the sales terms in violation of new policy guidelines resulted in non-recovery of ₹ 8.34 crore.

The Management stated that secondary freight was allowed to avoid inventory-carrying cost due to limited availability of storage capacity at railheads and efforts were made to reduce the secondary freight.

The Management's reply is not acceptable as the secondary freight allowed was in contravention of Government's new policy for uniform freight subsidy.

8.1.2.3 Irregularities in appointing handling and transportation contractors

Handling and transportation are important elements of marketing operations to ensure fertilizers are made available at consuming centers in time. Material is moved either by road from production units, or by rakes up to rake point and subsequently by road. To move the material from rake points within the stipulated time allowed by the Railways, the Company appoints handling and transportation (H&T) contractors at rake points/storage points in the marketing territory of the Company. Scrutiny of H&T contracts of Chandigarh and Bhopal Zones for the years 2007-08 to 2009-10 revealed the following irregularities:

- As per the new uniform freight policy, movement of material as per the least cost module only was re-imbursable. Audit observed that there were deviations from the least cost module resulting in movement of 56,082 MT of urea at extra freight expenditure of ₹ 31.67 lakh during 2009-10. The Management accepted that least cost module could not be followed strictly due to certain constraints for which all the fertilizer Companies had submitted their freight data for arriving at normative lead distance and PMT freight rate.
- In eight contracts, the quantity of urea as per the movement plan proposed for award of handling and transportation was more than the actual quantity handled by H&T contractors, which resulted in less handling of urea by H&T contractors ranging between 23 *per cent* and 84 *per cent*. Thus, fixing of higher movement quantities of urea, than actually being handled, resulted in diminishing competition among H&T contractors as those who were capable of handling lesser quantities had not quoted in these cases. This resulted in extending favours to

certain contractors who could handle higher quantities, as it was observed in audit that bidding was done by same contractors every year.

- Review of 37 H&T contracts in Chandigarh Zone revealed that more than 10 *per cent* of the contracts were awarded on a single tender basis and the same were renewed for two to three years without inviting fresh tenders.
- Review of award of H&T contracts in two zones (Chandigarh and Bhopal) revealed that the Company could not award regular H&T contracts prior to its expiry at many rake points in time. This resulted in ad-hoc H&T contracts being awarded for short durations of two to three months usually with higher financial implications. As an illustration, H&T contract for Sangrur expired on 30 September 2007, but could not be finalized during 2008-09. Due to delay in finalizing the tenders relating to Sangrur and Dhuri rake points, freight rate of the contract at Nabha had to be increased from ₹ 119.58 to ₹ 136.83 per MT. This resulted in additional financial burden of ₹ 6.61 lakh.

The Management stated that contracts were awarded to a single party as only one party responded to the tender. Further, there were very few pre-qualified parties at the above mentioned rake points as the truck unions were very strong and they did not allow any individual transporter to operate at these rake points. Regular H&T contracts could not be finalised timely as rates quoted were on very high side and hence tenders were cancelled and fresh tenders were invited. Also, supply of material through rakes was reduced at the stated rake points, being uneconomical.

The Management's reply is not acceptable as sufficient efforts were not made by the Company to pre-qualify parties on a regular basis through open advertisements in order to attract new parties to break the cartel formed by truck unions and obtain reasonable rates for transportation of urea. Further, the Company resorted to award ad-hoc H&T contracts to cover-up delays in finalization of H&T contracts prior to their expiry. Also, the Company should have accordingly changed the contracted quantity for H&T contracts as per their planned movement.

8.1.2.4 Non-lifting of contractual quantity by dealers

The Company appoints dealers for wholesale trade, retail or both and dealers are classified under two categories i.e private or institutional. Targets were fixed for each dealer depending on the total sales in market, number of dealers, existing market share and total sales target of the Company etc. The Company fixed 250 MT as minimum annual off take for each dealer under Central Stockist Scheme and dealers were required to lift a minimum of 10 *per cent* of the annual off take during each month.

Dealers performance report revealed that out of 686 dealers (Bhopal zone: 262, Lucknow zone: 156 and Chandigarh zone: 268), annual off take of urea of 211 dealers (Bhopal zone: 158, Lucknow zone: 20 and Chandigarh zone: 33) was 'nil' during 2009-10. Even then, the Company renewed Fertilizer Registration Certificates (FRC) of 121 dealers for the year 2010-11, after excluding the reserved category dealers.

The Management stated that FRC of underperforming dealers were renewed on the specific recommendation of field staff or in case of reserved category dealers. Nil lifting was basically due to constraints of dealer network, non-availability of full rake loads etc.

The reply is not acceptable as the Management should have arranged for alternative mode of transport in case demand was low in view of “constrained dealer network”.

Conclusion

Though the Company ranks as the second largest producer of urea in the country with a market share of 16.8 *per cent* of total urea production, there is still scope for improvement. Efficiency and cost effectiveness was not visible where marketing and sale of its products was concerned as marketing expenses on sale of urea led to under recovery of ₹ 15.04 crore during 2007-08 to 2009-10, while untimely import of Muriate of Potash led to a loss of ₹ 86 lakh with stocks remaining unsold till February 2010. Also sale of industrial products below their cost of production led to a loss of ₹ 7.06 crore during the period under review. Further, where marketing operations like handling, transportation, warehousing etc. were concerned the Company continued to incur secondary freight expenditure in violation of the New Policy of ‘Uniform Freight Subsidy’ which resulted in non-recovery of ₹ 8.34 crore. Also, allowing credit in excess of limits and without obtaining security resulted in blocking of funds. Non-renewal of handling and transportation contract on a regular basis resulted in delay in award of contract and award of contracts on a single tender basis.

In all these areas, the Company may like to improve its marketing/sales functions in order to streamline its functioning.

The matter was reported to Ministry in September 2010; reply was awaited (February 2011).

Rashtriya Chemicals and Fertilizers Limited

8.2 Project Implementation

Introduction

Rashtriya Chemicals and Fertilizers Limited (Company) was incorporated on 6 March 1978 on the reorganisation of erstwhile Fertilizer Corporation of India (FCI) into five companies. The operations started with the take over of all Mumbai based divisions of the FCI relating to manufacturing facilities at Trombay and Western and Southern marketing divisions of the FCI. The Thal manufacturing unit was added during 1985.

The Company is manufacturing fertilizer viz., Urea, Suphala 15:15:15 and 20:20:0 and Industrial Products viz., Methanol, Nitric Acid, Sulphuric Acid, Ammonium Nitrate, Phosphoric Acid, Microla and Argon gas. Apart from its own products, the Company also markets imported fertilizers.

Working Results

Projected turnover as per revenue budget and actual turnover of the Company for the five years ending 31.3.2010 are as follows.

Table 1

(₹ in Crore)

Sl. No.	Details	31.3.2010	31.03.2009	31.03.2008	31.03.2007	31.3.2006
1	Projected turnover (BE)	6178.55	5119.23	3917.68	3115.76	2892.81
2	Actual turnover	5642.11	8365.98	5140.27	3487.99	3046.83
3	Profit before tax	344.21	325.70	242.07	241.46	215.67

4	Existing Capacity of					
	a) Fertilizers (in lakh MT)	23.37	20.07	20.07	20.07	23.68
	b) Industrial product (in lakh MT)	1.10	1.10	1.10	1.10	1.10
5	Capacity utilisation (in %)					
	a) Fertilizers.	120.25	134.26	131.71	134.75	101.30
	b) Industrial product	154.25	154.43	140.11	152.02	141.93

The Company had not carried out any major expansion or created production facility after setting up of Thal unit in 1985. However, the Company was carrying out upgradation and revamping, to sustain production for longer operation life of the plant and to create additional facilities to produce bye products from the existing fertilizer and chemical plants.

System of Project Implementation

The Company is having a dedicated Projects Department (PD) headed by Chief General Manager. The PD gets the basic engineering and detailed engineering prepared through consultants. Further, the PD prepares Notice Inviting Tender (NIT), scrutinises, evaluates and negotiates on technical and commercial matters, places purchase orders and follows up erection and commissioning of plants. After completing guaranteed test run, the plants are handed over to the divisions concerned for operation.

The PD conducts regular review of implementation of the projects and reports the current status to Management and Board periodically. The Company constituted (July 2006) Project Review Committee (PRC) (originally Project Investment Committee) with three members. The Committee is headed by Government nominee director and assisted by one independent director and one functional director (Director Technical), to study all ongoing as well as future projects and to advise the Board.

Audit Objectives

The audit objectives were to see that:

- Investment decision on new products was preceeded by market survey;
- Observance of due diligence in the selection of vendors for the supply of equipment;
- Existence of uniform criteria for evaluation of vendors and contract clauses to protect the financial interest of the Company; and
- Adequacy of monitoring through setting up milestones for different activities.

Audit Scope

Audit examined the projects implemented during last three years 2007-08 to 2009-10.

Audit Criteria

The following criteria were adopted:

- Decisions of the Board of Directors (Board) for the approval of the projects
- Projections in the Detailed Project Report (DPR)
- Cost estimates made for approval of the project

- Terms and conditions in the Notice Inviting Tenders

Audit Methodology

During the audit DPR, Board papers, contracts and purchase orders placed for implementation of projects, printed annual reports, cost records and production records were examined and information was also collected from web. The preliminary audit observations were issued to the Company and discussions at appropriate level of Management were held to form audit opinion on various issues raised in this study paper.

Audit Findings

Delays were observed at different stages of the project starting from tendering to award of contract in each of the contract and resulting in cost over run. Besides there were deficiencies in the selection of the vendor, non-evaluation of capability of vendor, non-conducting of market study, non-identification of viable associate, non-compliance with Board directive on tendering and unproven technology. These shortcomings noticed in the execution of individual projects are discussed below

8.2.1 Capital Budget

The capital budget and the actual expenditure for the five years ending 31.3.2010 were as detailed below:

Table: 2

		(₹ in Crore)					
Sl. No.	Details	31.3.2010	31.3.2009	31.3.2008	31.3.2007	31.3.2006	31.3.2005
1	Capital budget	311.08	653.14	314.78	304.78	344.88	159.59
2	Actual expenditure	141.02	241.83	118.57	127.91	210.01	143.89
3	Percentage of capital expenditure to budgeted expenditure	45.33	37.03	37.67	41.97	60.89	90

It could be seen from the table that the ratio of capital expenditure to the budget allocation of the Company ranged between 37 and 61 *per cent* during the five year ending 2009-10 as against the expenditure of 90 *per cent* for the year 2004-05. The gap between the budgeted and the actual capital expenditure indicated that the financial projections were not integrated adequately with milestones in project activities.

8.2.2 Monitoring by Board

The Board approved (July 2006) the constitution of a committee to monitor the progress of all ongoing and future projects to the Board. Audit observed that the committee met only five times from July 2006 to March 2009 and there was no meeting during 2009-10.

The capital expenditure incurred on projects were not brought under the scope of Internal Audit and this deprived the Company of an independent assessment.

8.2.3 Execution of individual projects

8.2.3.1 Argon Gas Project-Selection of vendor without assessing their financial capability

The Board approved (October 2004) Argon Gas Project at an estimated capital outlay of ₹ 70.98 crore, with a direction to put the project on fast track. It was envisaged that Argon gas escaping along with tail gas of purge gas be recovered which could result in

net profit of ₹ 5.94 crore, ₹ 8.40 crore and ₹ 0.85 crore at a capacity utilisation of 60, 80 and 100 *per cent* respectively.

Audit observed the following deficiencies:

- The Company selected Bharat Heavy Plates & Vessles Limited (BHPV) who was financially unsound due to not meeting Notice Inviting Tender (NIT) condition (could not furnish solvency certificate). In terms of the purchase order the Vendor was expected to complete mechanical supplies by 30 September 2006 and sustained load test by 5 January 2007. To tide over the financial difficulties of BHPV, the Company took pro-active steps to avoid delay in execution of the project by making direct payment to the vendors (for materials procured by BHPV) and customs duty on imported goods through an escrow account. Despite such measures, the supply of equipment was delayed and the plant was commissioned in January 2009 with a time over run of 23 months and a cost over run of ₹ 9.69 crore.
- The project was conceived with an anticipated price of ₹ 26 per kg. during 2009 and 2010, which could not be realised when the plant was commissioned. As against a cost of ₹ 21.43 per kg. incurred by the Company during 2009-10, the average price realised was only ₹ 12.07 per Kg. resulting in loss of ₹ 9.17 crore on production of 7553.52 MT of Argon Gas.
- The terms and conditions of agreement did not contain any clause for recovering the cost of utilities like supply of power, fuel etc or cap on the quantity of such utilities to be supplied by the Company to the contractor, beyond the stipulated date of commissioning. In the absence of an enabling clause, the Company could not enforce recovery of ₹ 7.28 crore towards the cost of utilities consumed by them during the period of over stay solely attributable to the contractor.

The Management agreed (February 2010) that there was no specific clause in the contract for recovering the cost of utilities during the period beyond stipulated delivery date.

8.2.3.2 Revamping of Methanol Plant-Non-evaluation of capability of vendor

The Board approved (December 2005) Methanol Revamp (MR) Plant at Trombay at an estimated cost of approximately ₹ 108.43 crore on the basis of Techno Economic Feasibility Report (TEFR) prepared (October 2005) by PDIL. The project envisaged increase in methanol production to 242 MT PD from the existing 172 MT PD and bring down the energy consumption from 8.89 MKcal/MT. to 7.94 MKcal/MT. During the tendering stage (January 2007 to March 2007) the cost of the project was revised to ₹ 215.20 crore, with the realistic cost estimates based on the offer of ₹ 57.69 crore for synthesis gas compressor (SGS) and ₹ 83.88 crore for primary reformer, as against the estimated cost of ₹ 19.06 and ₹ 23.57 crore. The Company did not have the vital data for making a realistic estimate of the project.

The Company however, reviewed the project cost based on the above quoted price and decided to go in for small reciprocating synthesis compressor (RSGC) in place of SGS to bring down the cost to ₹ 135crore. Due to change in scope, technical specifications were revised resulting in delay in placement (November 2007 to October 2008) of POs. The scheduled implementation of the project was April 2008. Further, it was decided to synchronize RSGC in Phase II.

The Company received all equipments as per delivery schedule up to December 2008 except CO₂ compressor package, which was received only during January 2010. First phase of the project was completed in March 2010 (as against April 2008). Phase-II was still in progress (October 2010).

The following deficiencies were observed in audit:

- Cost estimate for methanol was prepared during October 2005, when the market for machinery and equipment manufacturers was in downward trend. When the tender enquiry was floated (January 2007 to March 2007), equipment manufacturing units were over booked resulting in increase in price of equipments and longer delivery period.
- The procedure of getting solvency certificate and evaluation of financial capability of the vendors before placement of order was not complied with.
- The Company did not evaluate production capacity of the supplier {M/s. Bharat Pumps and Compressors Limited (BP&CL)} in respect of compressor. There was delay of 12 months in supply of CO₂ compressor (cost ₹ 6.71 crore) by BP&CL. Thus, the project could be commissioned only on completion of erection of CO₂ compressor.
- The initial estimates were not realistic and the midway change in the selection of another option resulted in time over run.

The Management while agreeing with the audit findings stated (July 2010) that:

- Pre-qualifications criteria were not applicable for the list of pre-qualified vendors given by the detailed engineering consultant, M/s. PDIL. Hence, solvency certificate was not asked for from BP&CL.
- The annual reports submitted by BP&CL revealed that BP&CL was a loss making PSU in 2004-2005. However, they had booked profits in the subsequent two financial years. Hence, it was observed that at the time of placing order, BP&CL had enough capacity and gained financial stability to supply CO₂ compressor worth ₹.6.70 crore.

Reply of the Management was to be viewed in light of the following:

- The mere fact that a sick Company had started making profit was not an indication of its capacity to execute all orders within the given time. When BP&CL was having five orders worth ₹ 90.60 crore to be executed from March 2008 to February 2009, placement of order on BP&CL by the Company for delivery in December 2008 was not prudent.

Thus, incorrect estimate of the cost of project resulting in change of design and delay on the part of the contractor in supply of CO₂ compressor resulted in delayed implementation of the project and non-achievement of the envisaged benefit of reduction in energy consumption to 7.94 Mkcal/MT from the existing 8.89 Mkcal/MT.

8.2.3.3 Chickton Project-Non conduction market study

Chickton project was approved during March 2007 at a cost of ₹ 43.50 lakh on the basis of preliminary cost estimate and was to be completed by December 2007.

The project was conceived mainly to make optimum utilisation of the existing facilities and manpower to produce Chickton 1000 litres/day. The project cost was revised (June 2008) to ₹ one crore. The Company procured (March/April 2009) equipment costing ₹ 88.43 lakh and the plant was commissioned in June 2009. Regular commercial Chickton production was yet to be commenced (December 2010).

Audit observed the following deficiencies:

- The Company did not carry out any market survey to ascertain the viability of this project. The Company found that the product could not be launched into the market as there was no demand for the product. Thus the plant created at a cost of ₹ 88.43 lakh remained idle since June 2009.
- The Company had not made any provision in the capital budget of 2007-08 for execution of the project. Hence, funds were diverted from Argon Project. The diverted funds were not sufficient due to increase in the project cost. Provision for the same was only made in the budget for the year 2008-09.

The Management in their reply stated (November 2010) that they were hopeful of running the plant continuously on establishment of market and attributed the delay to the limitation in the production of the Formic Acid, which was one of the raw materials for making Chickton during 2007 to 2008.

The above reply was not borne out by facts as it was observed that the delay in placement of purchase order was due to non-provisioning of funds rather than to the stoppage of production of Formic Acid. The Company placed order for ancillary equipments during November 2007 to March 2008 by diverting funds from Argon project. The main equipment was ordered (August 2008) after provisioning the same in the capital budget for the year 2008-09.

In the absence of realistic estimate about the market potential for the product, the objective of investment remained unrealized.

8.2.3.4 Non-identification of viable associate- Clean Development Mechanism (CDM) Project

The Board approved (October 2005) Clean Development Mechanism¹ (CDM) project, which was taken up (February 2005), for reduction of Nitrous Oxide (N₂O) by installation of equipment (for measuring the emission before and after implementation) and catalyst² (chemical to capture the emission and destroy) in New Nitric Acid Plant at Trombay. It was envisaged that technology, equipments and catalyst were to be supplied by the Project Participant³ (PP) and mutually agreed portion of Certified Emission Reduction⁴ (CER), earned by the Company were to be shared. The project was conceived with a basic objective of containing green house gas emission and translating the same

¹ CDM project aims at reducing emission in developing country. Kyoto Protocol provides that developed Annex I countries can fund eligible emission reduction projects in the developing countries and use the resulting certified emission credits (CERs) to help in meeting their national reduction commitments of emission.

² Substance, which causes change in rate of chemical reaction.

³ Developed countries funding the eligible emission reduction projects.

⁴ A CDM project is undertaken in a developing country with no emission reduction targets. Each tonne of the carbon dioxide emission saved/reduced would result in one Certified emission reduction.

into carbon credit. It was estimated that with the investment made by the technology provider, the project would result in reducing emissions of N₂O by 0.58 million MT from the existing level of 0.73 million MT per year in Nitric Acid Plants at Trombay. Under Kyoto Protocol¹, the above reduction in emission would entitle the Company to earn a CER worth US\$ 2.61 million (approximately ₹ 1148 lakh) per year.

As the attempts made (October 2006 and July 2007) by the Company to bring in an associate through consortiums did not materialise, the Board approved (July 2007) implementing the project by funding through internal accruals.

The Company placed work order/purchase orders for the project during December 2007 to November 2008 for consultant, validation² and procurement of equipments and catalyst. The Company registered the project and started the campaigning period (abatement of N₂O) during November 2009 for nitric acid plants.

Audit observed that the Company procured (December 2008) the catalyst before registration with the UNFCCC³ in November 2009 resulting in blocking of funds of ₹ 3.74 crore for 10 months.

The Management stated in July 2010 that the interest loss on account of so called advance procurement on hindsight could be construed as avoidable but difficult to anticipate and predict in advance.

The reply of the Management needs to be viewed in light of the following:

- The project design document (PDD) submitted to UNFCCC during July 2009 for registration was under preparation at the time of placement of intent/purchase order for catalyst (September/November 2008 with delivery schedule of 10 weeks/November 2008).
- Further, the fact remained that validator was an independent agency working under the guidelines of UNFCCC and there was no timeline prescribed by UNFCCC for completing validation process. In the circumstances, the Company could have placed PO for catalyst after submission of PDD for registration to UNFCCC (July 2009) and avoided advance procurement of catalyst.
- The Company was yet to receive CER (November 2010).

8.2.3.5 Non-compliance with Board directives on tendering-Ammonium Nitro Phosphate (ANP) Granulation Project

The Board accorded (August 2006) 'in principle' approval for taking action in refurbishing of Complex Fertiliser Ammonium Nitro-phosphate (ANP) Plant namely Suphala 20:20:0 (complex fertilizer brand), at a cost of ₹ 125 crore in two phases through limited tenders on lump sum turn key (LSTK) contract basis. Phase I envisaged installation of a new 900 Metric Tonne Per Day (MTPD) granulation process within a period from 15 months from August 2006 i.e., in November 2007, at an indicative price

¹ *Kyoto protocol to United Nations Framework Convention on Climate Change adopted contains legally binding emission target for developed countries for the post 2000 period.*

² *Validation is the process of determining that the project is eligible to be registered as a CDM project, by confirming that the project meets the requirements of the CDM.*

³ *United Nations Framework Convention on Climate Change*

of ₹ 65 crore and Phase II aimed at taking parallel action for execution of wet process improvement of plant at an indicative project cost of ₹ 60 crore. The project objectives were

- technology upgradation of the plant
- minimizing the cost of production
- ensuring safe operation
- manufacturing new product/grade and
- Simplifying the product quality control.

The Company invited (October 2006) global tenders and due to poor response was re-tendered (May 2007). The Company took 15 months to finalise the tender and a Letter of Intent was issued (January 2008) on M/s. Hindustan Dorr-Oliver Limited for ₹ 82.11 crore (INR 70.85 crore+US\$1.42 lakh+Euro 0.98 lakh) and with a time schedule for completion in July 2009. The Company started commercial production in November 2009 but could not stabilise the production to its capacity of 900 MTPD even after nine months (August 2010).

The following deficiencies were observed in the execution of the project:

- Despite clear direction by the Board to invite bids from three well known Indian parties having tie up with international technological suppliers, the Company issued global tenders. This delayed the project schedule and coupled with other slippages in the supply, civil and erection work by the vendor ranging from 2 to 6 months resulted in project completion by November 2009 against the scheduled completion of November 2007.
- The work in respect of wet process, which was taken up in Phase II by the Company departmentally was yet to be completed (July 2010).

The Management inter-alia stated in July 2010 that:

- Since the revamp project was unique in nature, it needed attention from international technology suppliers and hence they advertised simultaneously in the international trade magazine and Indian newspapers for good coverage and achieving competitive bidding.
- No technically acceptable party had responded against NIT of Wet Process even after re-floating and was being undertaken departmentally.
- The first batch of ANP 20:20:0 was produced in November 2009 and the plant so far produced almost 31,000 MT and the production was being streamlined.

The reply of the Management had to be viewed in light of the following:

- The response to the global tender was received only from parties identified by the Board and the process only resulted in delay and additional cost of ₹ 12.97 crore.
- The actual production of ANP 20:20:0 was far below the envisaged capacity as it ranged between 41 and 293 MTPD against the planned capacity of 900 MTPD.

- As against the expected contribution of ₹ 30.83 crore per year on 100 *per cent* utilisation of the plant, the contribution for the year 2009-10 (November 2009 to March 2010) was - ₹ 3.95 crore.

The intended objectives of the project thus remained to be achieved till the implementation of wet process.

8.2.3.6 Unproven technology-Rapid Wall Project

Board approved (March 2006), Rapid Wall* project at a cost of ₹ 62.91 crore, revised to ₹ 75 crore to be completed in August 2008. The project was envisaged to produce 14 lakh square meters wall panels and appropriate quality Plaster of Paris using phospho gypsum (PG) a waste product of Phosphoric Acid (PA) plant.

The Company entered (May 2007) into an agreement with Rapid Building Systems Pvt Ltd (RBS) for a fee of Australian \$9281400 (₹ 32.19 crore approx) on the basis of Memorandum of Understanding (MOU) (October 2005) with RBS for supply of technology. The Company placed purchase orders for critical and non-critical equipment from December 2007 to February 2009. These equipments could not be erected immediately, since the plot selected (Feb 2006) did not meet the requirements of Explosive Inspectorate. Hence, the plot had to be changed. This resulted in delayed completion by 7 months of plant building (schedule date June 2008)

The Company had incurred expenditure of ₹ 74.08 (March 2010) crore against the approved cost of ₹ 62.91 crore and was yet complete the project.(December 2010)

The following points were observed in Audit:

- The technology supplier (RBS) was using natural Gypsum (NG) for its rapid wall manufacture and was yet to scale up the production of wall paper panel using PG. It was observed that the Company encountered the problem of lump formation as moisture content in PG was 10 to 18 *per cent*, further going up to 20 *per cent* during monsoon season.
- The site for the project was chosen without evaluating its suitability preferably with outside expertise.
- The Company could not market wall panels produced due to lack of load bearing capacity.

The Management while noting the audit findings, replied (July 2010) as under:

- Only after necessary testing and study of the PA plant gypsum with regard to its suitability for manufacturing Wall Panels by RBS, agreement was signed. Due to use of different types of Rock phosphate by PA plant, formulations for making Wall Panels were to be decided depending upon the quality of gypsum.
- Using the in-house expertise, the original plot was selected by Corporate Project department for Rapid Wall Project.
- Various commissioning difficulties were encountered on account of equipments and formulation for Wall Panel production. However, main delay in completion

* Ready made walls from the phospho gypsum, a solid bye product from Phosphoric Acid Plant.

of the project was due to delays in civil works (change in plot location and earth filling) and supply of material handling equipment.

- As on date, more than 400 wall Panels had been produced and issues related to quality were being resolved. Some panels were given for trial and as per the test result of IIT Chennai, the wall panels were not fit for load bearing. Hence, new formulas were being tried to make load bearing wall panel.
- It was a new concept and a new product; it would take some time for sales to pick up. Mixing Plant was producing Wall Plaster as per the requirement of marketing.

Reply of the Management was to be viewed in light of the following:

- Detailed testing of PG for manufacturing load bearing wall panel was not conducted at the beginning resulting in alternate formulas being tried after completion of erection of the plant.
- The site selected for the project had to be changed due to not consulting specialist/RBS for selection of suitable site, resulting in cost and time overrun.
- Regular commercial production of wall panel had not started (August 2010) due to modification work which was completed during August 2010.

The Company initially had neither analyzed the suitability of PG thoroughly for manufacturing load bearing wall panel nor had it foreseen the problems in the process of PG, due to its high moisture content. This had resulted in modification of plant, which was completed during August 2010. Also, the site was selected without consulting experts leading to delay in civil construction by 7 months. As such, the Company could not commence (October 2010) commercial production resulting in blocking up of capital amounting to ₹ 74.08 crore.

Conclusion

Despite creation of a dedicated cell to monitor the progress of projects, Audit observed delay in completion of projects. The delay had resulted in cost over run of ₹ 68.35 crore (March 2010). Moreover slippages in project schedules also affected marketability of the products. The expected savings in cost due to energy saving measures also did not accrue to the Company. Thus, the project deliverables envisaged during conceptual stage could not be realised due to inadequate monitoring.

The matter was reported to Ministry in September 2010, reply was awaited (February 2011).

Recommendations

- ***The Company may conduct market study on demand for products to assess viability.***
- ***Projects should be undertaken only after firming up the technical process and not to commit investment on projects with unproven process technology***
- ***Incorporate clauses in Lump Sum Turn Key (LSTK) contracts to recover the cost of utilities and damages arising out of non-performance on the part of the contractor.***

- *Monitoring of project should start from the time of approval of the project by the Board.*
- *PRC meetings should be held regularly to study all ongoing projects, so as to initiate timely corrective action, whenever required.*
- *Mandate internal audit to review project implementation so as to get first hand independent assessment.*