

CHAPTER-II

2. REVIEW RELATING TO GOVERNMENT COMPANY

2.1 Review on the performance and working of Assam Petrochemicals Limited

Highlights

Due to lower capacity utilisation, there was loss of production of 34,027 MT Methanol and 30,603 MT Formalin valued at Rs.29.96 crore and Rs.19.72 crore respectively during the five years up to 2002-03 at actual realisation prices in respective years.

(Paragraph 2.1.15)

The expenditure of Rs.54.37 lakh incurred for installing micro-alloy tubes became unfruitful.

(Paragraph 2.1.18)

The Company had consumed excess quantities of gas valued at Rs.79.68 lakh at cost due to operation of the plant with lower load compared to its installed capacity.

(Paragraph 2.1.21)

The Company had failed to develop/retain markets in North-Eastern States as originally planned.

(Paragraph 2.1.27)

The shortfall in value of sales of Methanol and Formalin was Rs.12.41 crore during 1998-99 to 2002-03 compared to target initially fixed by the Company.

(Paragraph 2.1.28)

Injudicious borrowing had resulted in avoidable expenditure of Rs.20.23 lakh.

(Paragraph 2.1.32)

The Company had incurred an expenditure of Rs.12.67 crore as salary and allowances in respect of excess manpower.

(Paragraph 2.1.334)

Due to delay in disposal of old plants and equipments, the Company had been deprived of interest earning of Rs.52.64 lakh.

(Paragraph 2.1.35)

Introduction

2.1.1 The Assam Industrial Development Corporation Limited (AIDC), a Government of Assam undertaking, formulated (1970) a scheme to set up a petrochemical industry at Namrup in Dibrugarh district, Assam as part of its mandated functions of industrial development of the State. Namrup was selected for setting up the factory mainly because of (i) availability of natural gas, to be used both as raw-material and fuel, from nearby oil fields and (ii) existence of sufficient demand for proposed petrochemical products from wood-based industries in and around the area.

Accordingly, Assam Petrochemicals Limited (the Company) was incorporated on 22 April 1971 by AIDC to implement the project/scheme. The Company became a Government Company in April 1974 by virtue of being a subsidiary Company of AIDC. The Company's factory and Head office is located at Namrup in the district of Dibrugarh.

Objects

2.1.2 As per Memorandum of Association of the Company, the main objects of the Company, are to manufacture, market and to deal in petrochemicals, chemical compounds and chemical products and also to undertake all incidental and consequential activities. Presently, the Company is engaged in manufacturing and marketing of Methanol and Formalin only.

Organisational Set-up

2.1.3 The management of the Company is vested in a Board of Directors consisting of not less than three and not more than 18 Directors. As on 31 March 2003, the Board consisted of nine Directors (two whole time Directors, two non-executive Directors nominated by the holding Company—AIDC, two institutional nominees and three non-executive independent Directors appointed by the shareholders).

The Managing Director is the Chief Executive Officer of the Company who is assisted by (i) Director (Finance), (ii) three General Managers (Operations/Maintenance/Project Planning Development), and (iii) two Deputy General Managers (Instrumentation/Marketing).

There were frequent changes of the incumbent in the post of Chief Executive. During 1998-99 to 2002-03, four persons held the post of Managing Director for periods ranging from six months to 36 months, which adversely affected the working of the Company.

Scope of audit

2.1.4 The working of the Company for the period from 1991-92 to 1996-97 was last reviewed in the Report of the Comptroller and Auditor General of India for the year 1996-97—Government of Assam (Commercial). This review was discussed by Committee of Public Undertakings (COPU) in July 2001 and recommendations contained in their 33rd Report were presented to State Legislative Assembly on 3 March 2004. Action Taken Report (ATR) on the recommendation of COPU was submitted (April 2004) by the Company to the State Government. The recommendations, *inter alia*, included the following:

- The Company should install Flow Meters of its own to cross check the volume of gas recorded.
- The Company should assess the actual requirement of power load before obtaining sanction from Assam State Electricity Board.
- The Company should take remedial measures to avoid excess consumption of Methanol and to minimise high holding of inventory in future.

It was observed in audit that similar deficiencies persisted during the period of the review as brought out in Para Nos. 2.1.20, 2.1.24 and 2.1.30.

The working of the Company for the period from 1998-99 to 2002-03 was reviewed in audit during February—March 2004 and the findings are set-out in the succeeding paragraphs.

Audit findings, as a result of review on the performance and working of Assam Petrochemicals were reported to the Government/Management in May 2004 with a specific request for attending the meeting of Audit Review Committee for State Public Sector Enterprises (ARCPSE) so that view point of Government/Management was taken into account before finalizing the review. The meeting of ARCPSE was held on 23 June 2004, and attended by the Secretary (Finance), Secretary (Industries)-Government of Assam, and Managing Director of the Company. The views expressed by the members have been taken into consideration during finalisation of the review.

Capital structure

2.1.5 The Company has an authorised share capital of Rs.17 crore (equity: Rs.15 crore; redeemable preference shares: Rs.2 crore). The paid-up share capital was Rs.9.13 crore as on 31 March 2003, which was held by the promoters, AIDC (Rs.8.04 crore), three financial institutions namely Industrial Development Bank of India, Industrial Financial Corporation of India and Industrial Credit & Investment Corporation of India (Rs.0.99 crore) and others (Rs.0.10 crore).

Financial position and working results

2.1.6 The Company had finalised its accounts up to 2002-03. Based on these finalised accounts, the financial position and working results of the Company for the five years period ended 31 March 2003 are given in *Annexure-10 & 11*.

It would be seen from *Annexure-11* that the Company incurred net loss of Rs.1.53 crore; Rs.1.65 crore and Rs.2.08 crore during 1998-99, 1999-2000 and 2001-02 respectively. The Company, however, earned net profit of Rs.3.51 crore and Rs.5.55 crore during 2000-01 and 2002-03 respectively.

The reasons for the losses as analysed in audit were as under

- Lower capacity utilization of both Methanol and Formalin Plants (Para-2.1.15).
- Lower sales price realisations compared to budgeted sales prices.
- Allowing heavy discounts, rebates and commissions (Para-2.1.29).

Production performance

Installed capacity/product description

2.1.7 The Company had started commercial operation in June 1976 after commissioning Methanol Unit-I (7,000 MTPA*), one Formalin Unit-I (16,500 MTPA*) and three Petrolite plants (total capacity: 14,500 MTPA*). These plants had been shutdown/discarded as mentioned in Para-2.1.35.

The details of plants and equipments commissioned subsequently and which were in operation during the period 1998-99 to 2002-03, are given below:

Name of the plant		Installed capacity	Name of product	Date of commissioning
1.	Formalin-II Unit	36,500 MT <i>per annum</i>	Formalin	30-09-1997
2.	Methanol Unit-II	36,500 MT <i>per annum</i>	Methanol	22-09-1998
3.	CO ₂ Generation Plant	350 NM ³ /Hour	Carbon-di-oxide	01-06-1996
4.	CO ₂ bottling plant	80 NM ³ /Hour	Bottled Carbon-di-oxide	30-07-1998

* MTPA: - Metric tonne per annum.

The two main products of the Company are (i) Methanol (CH₃OH) and (ii) Formalin (HCHO). Apart from these two, the Company produced a negligible quantity of bottled carbon-di-oxide each year up to June 2001 after which production of the same was discontinued due to low market demand and high cost of production. There was no production of carbon-di-oxide from the CO₂ generation plant.

Production process

2.1.8 Methanol is produced by reaction of Hydrogen (H₂) with Carbon-mono-oxide (CO) and Carbon-di-oxide (CO₂). These gases are first obtained by steam reformation of natural gas, which is used both as raw process feed as well as fuel.

Formalin is obtained by oxidation of Methanol with air. The process is characterised by the use of silver crystals as catalyst and water vapour to control catalyst temperature. Formalin contains Formaldehyde (37 per cent by weight), Methanol (3 per cent by weight) and balance 60 per cent water as per product specification.

Plant Load Factors (PLF)

2.1.9 Both Methanol-II and Formalin-II plants have installed capacity of 100 MT each per day. The operating capacity was, however, fixed at 33,000 MT for each plant on the basis of 330 stream days in a year. The standard PLF, thus, worked out to 90.41 per cent at cent percent plant capacity utilisation. The actual PLF achieved during 1998-99 to 2002-03 was as under:

Year	Methanol			Formalin		
	Maximum possible production (MT)	Actual production (MT)	PLF (per cent)	Maximum possible production (MT)	Actual production (MT)	PLF (per cent)
1998-1999	36,500	26,333	72.15	36,500	16,999	46.57
1999-2000	36,600	25,423	69.46	36,600	17,605	48.10
2000-2001	36,500	25,401	69.59	36,500	21,092	57.79
2001-2002	36,500	21,448	58.76	36,500	20,354	55.76
2002-2003	36,500	29,609	81.12	36,500	22,855	62.62

The plants could not achieve desired PLF

Thus, both the plants could not achieve the desired PLF of 90.41 per cent in any of the years. The actual PLF varied from 58.76 to 81.12 per cent in respect of Methanol plant and 46.57 to 62.62 per cent in respect of Formalin plant.

The reasons for the low PLF are discussed in succeeding paragraphs.

Plant availability

2.1.10 The plant availability as represented by the percentage of actual operated hours to maximum available hours in a year along with

shutdown hours of the plants as compiled by audit from Daily Production MIS are tabulated below:

Year	Methanol-II				Formalin-II			
	Maximum hours in a year	Hours operated	Shutdown hours	Plant availability (percentage)	Maximum hours in the year	Hours operated	Shutdown hours	Plant availability
1998-1999	8,760	7,717	1,043	88.09	8,760	4,803	3,957	54.83
1999-2000	8,784	7,907	877	90.02	8,784	5,892	2,892	67.08
2000-2001	8,760	8,083	677	92.27	8,760	6,543	2,217	74.69
2001-2002	8,760	7,054	1,706	80.52	8,760	6,225	2,537	71.06
2002-2003	8,760	8,183	577	93.41	8,760	7,624	1,136	87.03
Total	43,824	38,944	4,880	88.86	43,824	31,087	12,739	70.94

Each of the plants was expected to run for 7,920 hours (330 days x 24 hours) in a year corresponding to plant availability of 90.41 *per cent*. Against this, only Methanol-II plant achieved this norm in 2000-01 and 2002-03.

Plant shutdowns

2.1.11 Cause-wise analysis of shutdown hours in respect of both the plants are shown below:

Particulars		Methanol-II					Formalin-II				
		98-99	99-00	00-01	01-02	02-03	98-99	99-00	00-01	01-02	02-03
(i)	Power failure and voltage dip	144 (13.81)	173 (19.73)	79 (11.67)	93 (5.45)	170 (29.46)	162 (4.09)	242 (8.37)	209 (9.43)	132 (5.20)	181 (15.93)
(ii)	Turbo Generator failure	21 (2.01)	10 (1.14)	10 (1.48)	23 (1.35)	25 (4.33)	-	-	-	-	-
(iii)	Mechanical/electrical/instrument faults	249 (23.87)	690 (78.68)	19 (2.81)	130 (7.62)	142 (24.61)	266 (6.72)	111 (3.84)	96 (4.33)	65 (2.56)	2 (0.18)
(iv)	Other reasons	629 (60.31)	4 (0.45)	569 (84.04)	1,460 (85.58)	240 (41.60)	3,529 (89.19)	2,539 (87.79)	1,912 (86.24)	2,340 (92.24)	953 (83.89)
Total		1,043 (100)	877 (100)	677 (100)	1,706 (100)	577 (100)	3,957 (100)	2,892 (100)	2,217 (100)	2,537 (100)	1,136 (100)

(Figures in brackets represent percentage)

The Company received electrical power from Assam State Electricity Board and hence, hours lost due to power failure and voltage dip was not controllable in short run period. The Company, however, was considering setting up of a captive power plant to avoid disruption in production due to power failure. The final decision has, however, not yet been taken (July 2004). Hours lost due to Turbine Generator (TG) failure was negligible. Hours lost due to mechanical/electrical/instrument faults and other reasons were, however, largely avoidable through planned preventive maintenance.

The Company stated (July 2004) that the plants were almost 15 years old, contain lot of rotating equipments, which get worn out and hence, hours lost due to mechanical/electrical/instrument faults were unavoidable. The fact,

however, remains that the Company had no planned preventive maintenance schedule to reduce/avoid such shutdown hours.

2.1.12 The details of major shutdowns and loss of production compared to standard plant load factor (90.41 *per cent*) valued at net realised prices in respective years are given below:

Particulars		Duration	No. of days	Loss of production (MT)	Value of production loss (Rupees in lakh)
(1)		(2)	(3)	(4)	(5)
METHANOL-II PLANT					
(a)	Reformer tube failures [#]	16 June 1999 to 9 July 1999	24	2,170.08	161.04
(b)	Reformer tube failure [#]	9 April 2000 to 23 April 2000	15	1,356.30	138.10
(c)	Reformer tube failure [#]	21 March 2001 to 30 March 2001	10	904.20	92.07
(d)	Reformer tube failure [#]	7 July 2001 to 19 July 2001	13	1,175.46	96.56
(e)	Changing all reformer tubes	12 September 2001 to 30 October 2001	49	361.68 [@]	29.71
(f)	Failure of boiler feed water preheater	1 January 2003 to 8 January 2003	8	723.36	83.62
Total		-	119	6,691.08	601.10
FORMALIN-II PLANT					
(g)	Lack of demand for product	1 April 1998 to 31 March 2003.	315	28,482.30	1,739.36
(h)	Shortage of Feed Methanol	23 November 1998 to 7 December 1998	15	1,356.30	74.46
(i)	Shortage of feed Methanol	6 July 1999 to 14 July 1999	9	813.78	43.65
(j)	Shortage of feed Methanol	24 February 2002 to 27 February 2002	4	361.68	21.94
(k)	Excess concentration of Methanol in Formalin	25 December 1998 to 5 January 1999	12	1,085.04	59.57
Total		-	355	32,099.10	1,938.98

The Company suffered production loss due to avoidable shutdown of plants.

Thus, during 1998-99 to 2002-03, the Company suffered production loss of 6,691.08 MT Methanol and 32,099.10 MT Formalin valued at Rs.6.01 crore and Rs.19.39 crore respectively due to above shutdowns. This represented around 69 to 72 *per cent* of total shutdown hours excluding shutdowns for power failure and TG failure.

In this connection, the following further observations are made:

Methanol-II Plant:

2.1.13 The plant was in operation from 30 August 1988. The 42 reformer tubes in reformation section had completed their expected life of 10

[#] The tubes had developed leaks/cracks as the tubes had completed their useful life.

[@] Represents production loss for four days excluding 45 days allowed for the job.

Delay in replacement of reformer tubes resulted in production loss.

years in September 1998 and were due for replacement. The tubes were ultimately changed in September–October 2001. Due to delay in raising indent for procurement of tubes, delay in processing the indent, cancellation of purchase order in mid-stream and placement of fresh purchase order with new specifications resulted in delay in replacement of these tubes and production loss of 5,606.04 MT of Methanol valued at Rs.487.77 lakh [item (a) to (d) of the table of Para-2.1.12]. The Company did not furnish any reply on these observations.

2.1.14 The Boiler Feed water preheater had failed after six months of its installation (July 2002) as the tube materials used in the preheater was not of specified quality. This resulted in shutdown of the plant for eight days. As the preheater was installed after guarantee period, no compensation could be claimed from the supplier.

Plant capacity utilisation

2.1.15 The details of maximum possible production in actual operated hours (@ 4.166 MT per hours), actual production and capacity utilisation factor in respect of both Methanol-II and Formalin-II plants during the five years up to 31 March 2003 are tabulated below:

Years	Methanol-II			Formalin-II		
	Maximum possible production in actual operated hours (MT)	Actual production (MT)	Capacity utilisation (Per cent)	Maximum possible production in actual operated hours (MT)	Actual production (MT)	Capacity utilisation (Per cent)
1998-1999	32,149	26,333	81.91	20,009	16,999	84.96
1999-2000	32,941	25,423	77.18	24,546	17,605	71.72
2000-2001	33,674	25,401	75.43	27,258	21,092	77.38
2001-2002	29,387	21,448	72.98	25,933	20,354	78.49
2002-2003	34,090	29,609	86.86	31,762	22,855	71.96
Total	1,62,241	1,28,214	79.03	1,29,508	98,905	76.37

Thus, both the plants could not achieve the expected 100 per cent capacity utilisation in any of the years. The average capacity utilisation during 1998-99 to 2002-03 was 79.03 per cent and 76.37 per cent for Methanol-II and Formalin-II respectively.

Lower capacity utilisation resulted in production loss.

Due to lower capacity utilisation, there was loss of production of 34,027 MT Methanol and 30,603 MT Formalin valued at Rs.29.96 crore and Rs.19.72 crore respectively during the five years up to 2002-03 at actual realisation prices in respective years.

Reasons for lower capacity utilisation as analysed in audit were as under:

Methanol-II Plant

2.1.16 There was delay in replacement of reformer tubes as mentioned in Para-2.1.13. As a result of this delay, the reformer tube failed as many as four times between June 1999 to July 2001 and 13 tubes were plugged rendering them out of service. The effective number of reformer tube, thus,

came down to 29 only. Consequently, the reformation capacity gradually came down from 88 *per cent* (June 1999) to 50 *per cent* (July 2001). In addition, low natural gas pressure and temporary process constraints also contributed to low capacity utilisation.

Formalin-II Plant

2.1.17 As per Director's Report to the shareholders for the years 1998-99 to 2001-02, lower capacity utilisation of the plant was due to low market demand resulting mainly from closure of plywood factories in North-Eastern States due to ban imposed (12 December 1996) by the Supreme Court on felling of trees.

It was, however, observed in audit that the Company had commissioned the plant in September 1997 with full knowledge of the ban earlier imposed by the Apex Court.

Unfruitful expenditure

2.1.18 The Reformer of Methanol-II plant had 42 reformer tubes (RT) made of IN-519 material. All these tubes were changed during September—October 2001 with tubes made of micro-alloy, which were costlier. The specification of RT was changed to micro-alloy, which had higher internal diameter in order to increase plant capacity from 100 MT to 130 MT per day. As the higher capacity tubes were installed without increasing the capacity of up-stream/down-stream equipments like natural gas pipeline, natural gas compressors and condensers, there was no increase in installed capacity of the plant.

The extra expenditure of Rs.54.37 lakh incurred for installing micro-alloy tubes, thus, proved unfruitful.

The Company stated (July 2004) that extra expenditure was incurred for (i) better quality material, (ii) to increase capacity of Methanol Plant in future and (iii) 30 *per cent* extra reformation capacity would be advantageous in case of tube failure in future.

The reply is not acceptable as these tubes were purchased to increase plant capacity by 30 *per cent* as per 200th Board meeting held 24 October 2000. The plant capacity, however, could not be increased (August 2004).

Procurement and utilisation of natural gas

2.1.19 The Company procures natural gas for use both as raw-feed and fuel. Oil India Limited (OIL) supplies natural gas from its Naharkatia and Duliajan oil fields. Assam Gas Company Limited (AGCL) transports the same from OIL off-take point to Company's in-take point through their own

Replacement of RT made of IN-519 with tubes made of micro-alloy at higher cost.

pipelines. Cost of natural gas constituted around 47 per cent of total variable cost of production of Methanol in 2002-03.

Discrepancy in procurement and utilisation

2.1.20 Reference is invited to Para-2.9.2.2 of the Report of the Comptroller and Auditor General of India (Commercial), Government of Assam for the year 1996-97, where absence of proper mechanism for accounting of natural gas was pointed out. The Company had installed flow meters to cross check the gas recorded, during 1998-99 to 2002-03, as against the procured quantity of 162.09 Million Standard Cubic Meter (MSCM) of natural gas valued at Rs.23.72 crore, the records of the Company, showed consumption of 153.76 MSCM of natural gas. Thus, there was a discrepancy of 8.33 MSCM of gas valued at Rs.1.22 crore.

Thus, the Company has not yet (August 2003) developed a proper mechanism to account for actual consumption of gas.

Excess consumption of natural gas in production of Methanol

2.1.21 The specific consumption of natural gas both as process-feed stock and fuel for reformer furnace in Methanol-II plant was determined at 913 NM^{3*} (963.33 SCM[#]) per MT of Methanol during guarantee test in March 1989. In September 1995, the Company had re-fixed the same at 960 NM³ (1,025.59 SCM) in view of aging of the plant and also to take care of variation in (i) calorific value of natural gas and (ii) catalyst activity. No further revision of this norm was made by the Company till July 2004.

During 1998-99 to 2002-03, the Company produced 1,28,212 MT of Methanol and consumed 137.20 MSCM of gas against requirement of 131.49 MSCM as per norm fixed (September 1995) by the Company. There was, thus, excess consumption of 5.71 MSCM of gas valued at Rs.79.68 lakh at cost.

The reasons for the excess consumption were not analysed by the Management. The audit analysis, however, revealed that the excess consumption was attributable to operation of the plant at low capacity, as discussed in Para-2.1.15 *infra*.

Purchase, generation and consumption of electricity

2.1.22 The Company required electricity for running various plants and equipments. It also required electricity for lighting loads in factory, township and residential colony. The requirement is met primarily through

* Normal Cubic Meter.

Standard Cubic Meter.

purchase of power as an industrial consumer from Assam State Electricity Board (ASEB) and partially through captive generation by turbo-generator.

During the five years from 1998-99 to 2002-03, the Company received 67.78 Million Units (MU) of power from ASEB at total cost of Rs.23.69 crore. The captive generation during the same period stood at 19.96 MU.

Even though cost of electricity alone constituted 40 to 47 *per cent* of total variable cost of production during 2000-01 to 2002-03, the actual consumption was not metered separately for each plant for comparing the same with the norms of 510 Kwh per tonne of Methanol and 52 Kwh per tonne of Formalin fixed for the purpose.

The Management stated (July 2004) that actual consumption of electricity was around 595 Kwh per tonne of Methanol and 48 Kwh per tonne of Formalin. The fact remains that consumption was not metered separately for each plant and the actual consumption shown by the Management is only an estimate.

In this connection, the following further observations are made:

Unmetered supplies to residential colony

2.1.23 The Company supplied electricity to the residential quarters of the officers and employees from the same panel from which supplies were made to plants, factory and township area. Thus, supplies to residential quarters were not metered. As assessed by the Company, the average annual consumption for domestic purpose was around 4,88,160 units. The Company was making recoveries from its officers and employees at flat monthly rates irrespective of quantum of consumption. As a result, the Company could not recover Rs.74.58 lakh during 1998-99 to 2002-03 as worked out in audit. The details were as under:

	Particulars	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	Total
(i)	Quantity consumed (Kwh)	4,88,160	4,88,160	4,88,160	4,88,160	4,88,160	24,40,800
(ii)	Actual rate paid to ASEB	Rs.2.81	Rs.3.12	Rs.3.52	Rs.3.96	Rs.4.05	-
(iii)	Total amount paid to ASEB	13,71,730	15,23,059	17,18,323	19,33,114	19,77,048	85,23,274
(iv)	Actual recovery from employees	86,111	1,42,569	2,81,185	2,76,826	2,78,509	10,65,200
(v)	Short recovery	12,85,619	13,80,490	14,37,138	16,56,288	16,98,539	74,58,074

It may be pointed out that the system of unmetered supply as adopted by the Company did not provide any incentive to effect economy in use of electricity.

In the ARCPSE meeting held on 23 June 2004, on being pointed out by Secretary, Finance Department that supply of electricity to staff should be

metered in order to stop misuse of power. Management agreed to look into the feasibility of installing meters for each consumer.

Excess consumption of Methanol in production of Formalin

2.1.24 Formalin-II plant commissioned in September 1997 was designed to produce Formalin with three *per cent* Methanol concentration. As per operating manual supplied by the technology supplier (Derivadas Forestelles, Netherlands) as well as Daily Production MIS of the Company, 0.469 MT of Methanol was required for production of one tonne of Formalin.

During 1998-99 to 2002-03, the Company produced 98,905 MT of Formalin (excluding 285.78 MT produced in Formalin-I plant), consuming a total quantity of 50,348.24 MT of Methanol against norm of 46,386.45 MT. There was, thus, excess consumption of 3,961.79 MT of Methanol, which was valued at Rs.3.48 crore at actual sales prices in respective years.

As indicated in the minutes of 212th Board meeting held on 22 March 2002, the high Methanol content in Formalin was due to (i) the quality of catalyst used and (ii) power interruptions. Audit observed that the Company was using indigenously re-generated catalyst from Kolkata (Arora Mathey Limited) in place of imported Spanish catalyst. The Company could have purchased suitable catalyst to obtain required product specification. Further, the problem of power interruptions could have been solved by keeping the D.G. set in auto-mode, as directed by the Board.

The Management, while accepting the facts, stated (July 2004) that the Company had taken lot of steps to improve specific consumption of Methanol. Further, as regards DG set to be run in auto mode, the Management stated that the problem had been overcome by providing power supply to control panel from Turbo Generator, which helped in controlling the temperatures in reactor.

Marketing and sales performance

Marketing set up

2.1.25 The Marketing department of the Company is headed by one Deputy General Manager (Marketing) who is assisted by one Senior Manager (Marketing), two Managers (Marketing), one Deputy Manager (Marketing) and one Assistant Manager (Marketing) and 12 other officers/staff.

The Deputy General Manager and Senior Manager (Marketing) were posted at Guwahati. One Manager (Marketing) was posted at Siliguri while one Junior Marketing Assistant was posted at Dhaligaon and two Junior Officers were posted at Kolkata. The rest were posted at Namrup.

The Company makes sales mostly on cash basis. The Company has two sales agents, one at Delhi for Methanol and another at Patna for sale of Formalin.

Market share

2.1.26 The Company did not carry out any market survey to ascertain the demand profile of its products in different market segments. The Company supplied data in respect of demand for Methanol and accordingly, market share of Company's Methanol was as under:

Market segment		Total demand as furnished by Management (MT)	Actual sales (MT) 2002-2003	Market share (Percentage)
(i)	Eastern States (Bihar, West Bengal, Orissa, Bhutan, North-east)	35,000	3,042.64	8.69
(ii)	Northern States (Uttar Pradesh, Punjab, Rajasthan)	84,000	15,487.07	18.44
		1,19,000	18,529.71	15.57
(iii)	All India	7,00,000	18,529.71	2.65

Thus, the Company had a market share of 8.69 *per cent* in Eastern States compared to 18.44 *per cent* in Northern States. Due to failure on the part of the Company to exploit Eastern States market, the Company was selling Methanol in Northern States market at lower net realisation at reduced margins to the Company.

Sales performance

2.1.27 The details of area-wise sales executed by the Company along with annual sales targets for the years 1998-99 to 2002-03 are given in **Annexure-12**. It would be seen from the **Annexure** that sale of Methanol in North Eastern States (NES) recorded a steep decline from 39 *per cent* in 1998-99 to six *per cent* in 2002-03—whereas sales to Northern States (Uttar Pradesh, Rajasthan and Punjab) had increased from 46 (1998-99) to 84 *per cent* (2002-03). The distance from factory to North Indian Market was around 2,500 Km. The main markets for sale of Formalin were North Bengal (1,070 Km), South Bengal (1,665 Km), Purnea (1,240 Km) and Patna (1,550 Km), which accounted for 76 (2000-01) to 84 *per cent* (1998-99) of sales of Formalin whereas the North Eastern States accounted for 9 to 13 *per cent* of sales.

Thus, the Company had failed to develop/retain markets in North Eastern States as originally planned.

2.1.28 It would be seen from **Annexure-12** that that there was shortfall of 10,428.69 MT in sale of Methanol during 1998-99 to 2001-02 and 6,377.76 MT in sale of Formalin during 1998-99 and 2001-02 to 2002-03 compared to

targets initially fixed by the Company. The shortfalls were valued at Rs.8.51 crore and Rs.3.90 crore respectively at actual net realisation.

The reasons for the shortfall in sales, as analysed in audit were gradual decline in reformation capacity of Methanol Unit-II during 1998-99 to 2001-02 and inability of the Company to increase market share, particularly in Eastern States.

The Management replied (July 2004) that efforts were made to develop NES/Eastern market, which gives higher realisation to the Company.

Excessive payments of rebate/discounts

2.1.29 The details of discounts, rebates and commissions paid by the Company on sale of Methanol and Formalin during 1998-99 to 2002-03 were as tabulated below:

Years	Methanol			Formalin		
	Gross sales value	Rebate/ discounts paid	Percentage of rebate/ discounts to sales	Gross sales value	Rebate/ discounts paid	Percentage of rebate/ discounts to sales
{Rupees In lakh}						
1998-1999	1,703.08	424.50	24.93	1,322.43	375.69	28.41
1999-2000	1,538.91	325.85	21.17	1,372.26	415.66	30.29
2000-2001	1,620.72	68.88	4.25	1,637.25	133.23	8.14
2001-2002	957.72	33.48	3.50	1,336.91	89.40	6.69
2002-2003	2,300.45	158.34	6.88	1,757.16	87.98	5.01

During the years 1998-99 and 1999-2000, heavy discounts/rebates were offered and thereafter from the year 2000-01 (since 1 July 2000) the discounts were built into the basic price and the sales prices were reduced. In spite of reduction in sales prices for the years 2000-01 to 2002-03 and allowing heavy rebates/discounts in the years 1998-99 to 1999-2000, the Company had to reduce sales targets of Methanol from the year 1999-2000 and except for 2002-03 it had not been able to achieve the sales targets. As regards Formalin, the Company was not able to achieve the targets for the years 1998-99, 2001-02 and 2002-03.

The Company stated (July 2004) that to make the Company's product competitive, discounts and rebates were allowed after charging same basic price for all customers as per the excise provisions till June 2000; thereafter, *percentage* of rebate/discount decreased due to fixing of basic price different for different regions and rationalisation of discount structure over the period.

The reply of the Company is not tenable as the discounts had been adjusted/built into the selling price from 2000-01. As a result, *percentages* of discounts were reduced but the fact remains that the Company could not generally achieve the sales targets.

Sales targets for both Methanol and Formalin not achieved.

Inventory control

2.1.30 The table below indicates the value of inventory of stores and spares, lubricants and chemicals held by the Company and stock of inventory in terms of month's consumption as at the end of each of the five years up to 2002-03.

Years	Closing stock	Consumption	Amount written off	Closing stock in terms of month's consumption
(Rupees in lakh)				
1998-1999	494.11	89.65	6.07	66.14
1999-2000	632.71	49.34	1.85	153.88
2000-2001	564.12	63.73	84.34	106.23
2001-2002	362.37	126.27	3.13	34.44
2002-2003	407.28	86.54	16.28	56.48

It could be seen from the table that the holding of inventory had declined from 153.88 months' consumption in 1999-2000 to 34.44 months' consumption in 2001-02 and then increased to 56.48 months' consumption in 2002-03. Considering 21 *per cent* insurance stock which the Company was required to keep as spares to meet emergent situation, the stock holding ranged between 27.20 months' to 121.56 months' consumption during the five years up to 2002-03. As compared to lead-time of 12 months required for procurement of any item, the inventory holding was exceedingly high.

The inventory management system was also found deficient due to:

- not carrying out physical verification of stock during the five years up to 2002-03;
- non-fixation of maximum, minimum and re-order level;
- non-segregation of obsolete/unserviceable stocks;
- non-reconciliation of Bin-cards and ledger balances;
- non-preparation of lists of critical/insurance spares.

Cash management

2.1.31 A proper cash management system ensures planning for ways and means, prompt collection of all dues and timely discharge of financial commitments and deployment of surplus fund in interest bearing instruments.

The Company did not have a system of preparing cash budgets for efficient management of its ways and means position. The Company, however, prepared, on *post-facto* basis, a statement of inflow and outflow of fund for every seven to 10 days for information of the Director (Finance) and the

Managing Director. In this connection, the following points having direct impact on the liquidity of the Company were noticed in audit.

Injudicious borrowing

2.1.32 The Company raised (22 February 2002) a term loan of Rs.3 crore from United Bank of India (UBI), Guwahati for part-financing the project cost (Rs.6.25 crore) of modernisation of Methanol-II plant. As against the requirement of Rs.6.25 crore, the Company was holding short-term deposits of Rs.6.20 crore at the beginning of 2001-02 and Rs.5.74 crore at the end of 2002-03 when the work of modernisation was over.

It was also seen that the amounts in short-term deposits were in excess of Rs.3 crore during these two years except for short period from 18 April 2002 to 31 May 2002 during which the balance in term deposits had decreased to Rs.2.14 crore.

Thus, due to financing the project with borrowed fund at 14 *per cent* interest while keeping Company's own fund in short-term deposit earning on average seven *per cent* interest per annum, the Company incurred avoidable expenditure of Rs.20.23 lakh being the differential amount of interest.

The Management replied (July 2004) that Company's fund were not invested in full keeping in view the future projects and plants. The reply of the Management is not tenable as the Company belatedly utilised the Company's fund in pre-payment of IDBI loan and UCO bank loan. Had the Company's fund been utilised initially, expenditure of Rs.20.23 lakh could have been avoided.

Costing system

2.1.33 The Company was maintaining cost records in terms of Section 209 (1) (d) of the Companies Act, 1956 and also prepared costing profit and loss accounts for the years 2000-01 to 2002-03. In the absence of any specific statutory requirement, the Company did not take any action for audit and certification of such cost accounts. The cost data also did not form part of any established MIS for taking effective steps for cost control and cost reduction.

Manpower management

2.1.34 As per project reports, the actual manpower requirement was of 386 employees. The Board in their 212th meeting held on 22 March 2002 had, however, assessed the requirement of 394 employees. The details of men-in-position compared to requirement, excess expenditure on surplus men power and total employee cost as *percentage* of turnover were as under:

Particulars		1998-1999	1999-2000	2000-25001	2001-2002	2002-2003
(i)	Manpower required	394	394	394	394	394
(ii)	Men-in-position	554	538	540	521	516
(iii)	Surplus	160	144	146	127	122
(iv)	<i>Pro-rata</i> cost of surplus manpower (Rupees in lakh)	239.11	218.81	268.59	215.81	324.60

As compared to assessed requirement, there was excess manpower ranging from 160 to 122 during 1998-99 to 2002-03. The Company had incurred a total expenditure of Rs.12.67 crore as salary and allowances in respect of excess manpower calculated on *pro-rata* basis.

Management accepted (23 June 2004) the audit observation and stated that all efforts were being made to rationalise excess manpower.

It was also noticed in audit that despite having excess manpower, the Company paid a total amount of Rs.2.54 crore as overtime allowance during the five years up to 2002-03.

The Company stated (in the ARCPSE meeting held on 23 June 2004) that engagement of workers is required on Overtime (OT) against holidays, leave and off day. The Management in its reply (July 2004) further stated that steps were being taken by it for rationalisation of manpower.

Delay in disposal of discarded plants and equipments

2.1.35 Delay in disposal of discarded plants and equipments leads to blockade of fund and consequent loss of interest besides deterioration due to wear and tear. The Company was, therefore, required to dispose of the discarded plants and equipments at the earliest.

Scrutiny, however, revealed that due to abnormal delay in initiating action for disposal of plants, at Sl. no. 1 to 5 of the table given below, the Company had incurred loss of interest amounting to Rs.52.64 lakh (Rs.132.71 lakh x 7 *per cent* x 68 months) computed on the basis of accepted bid of Rs.132.71 lakh and the average rate of interest earned by the Company on its short-term deposits.

Delay in disposal of discarded plants and equipments.

Name of plants and equipments		Date of commission	Date of shutdown	Reasons for shutdown	Remarks
1.	Methanol-I Unit	25-06-1976	21-02-1998	Due to high cost of production and low demand.	Against valuation of Rs.444.60 lakh, highest offer received and approved by the Board (January 2004) was Rs.132.71 lakh. These plants were not disposed off even after a delay of 68 months from January 1999 to August 2004.
2.	Formalin-I Unit	25-06-1976	January 1999	Due to low market demand.	
3.	Petrolite-R-65	25-06-1976	March 1983	Production stopped due to absence of demand.	
4.	Petrolite-R-50	25-06-1976	March 1993		
5.	Petrolite-M	25-06-1976	December 1995		
6.	CO ₂ Generation Plant	01-06-1996	April 2000	The plant was set up to supply Carbon-di-oxide to Methanol-I, which was shutdown from 21 February 1998.	The Board, however, had decided (2 September 2002) not to dispose off the plant.
7.	CO ₂ bottling plant	10-07-1998	July 2001	Low market demand and higher cost of production.	The Company have not yet (July 2004) taken any action for its disposal.

Internal control/Internal audit

2.1.36 The internal control procedures of the Company were deficient in respect of the following:

- Non-preparation/non-observance of any preventive maintenance schedule to avoid shutdown and production loss (Para-2.1.11).
- Absence of mechanism to account for actual consumption of gas (Para-2.1.20).
- Non-metering of energy consumption separately for each plant and unmetered supply of electricity to residential colony (Para-2.1.22 and 2.1.23).

- Absence of physical verification of stock during 1998-99 to 2002-03 (Para-2.1.30).
- Non-preparation of cash budget for efficient cash management (Para-2.1.31).

2.1.37 The Company did not have any separate and independent internal audit cell with specified duties and responsibilities.

The Statutory Auditors in their reports to the members of the Company had commented on the need for an internal audit system commensurate with the size and nature of its business. Effective action, however, in that direction had not yet (March 2004) been taken.

Conclusion

The Company could not achieve desired plant load factor due to excess shutdowns as well as lower capacity utilisation. The Company also did not have proper mechanism to monitor and control consumption of natural gas and electrical power. There was excess stockholding leading to blockade of fund and stocks were also not physically verified during the last five years. There was excess manpower as compared to required manpower.

The Company needs to improve plant load factor and capacity utilisation. Proper mechanism for accounting of natural gas and electrical power is required. Stock holding level is required to be brought down to reasonable level and immediate action is required for conducting annual physical verification of closing stocks. Excess manpower is also required to be brought down.