

CHAPTER II

2. REVIEWS RELATING TO GOVERNMENT COMPANIES

2.1 THE KERALA MINERALS AND METALS LIMITED

Highlights

The Company was incorporated in February 1972. The present activity is mainly confined to separation of minerals from sand in the Mineral Separation Plant and production of Rutile grade Titanium Dioxide Pigment. The capacity of the Mineral Separation Plant was 70,000 MT per annum and that of Titanium Dioxide Pigment Plant was 36,000 MT per annum as on 31 March 2004.

(Paragraph 2.1.1)

Loss due to short recovery of Ilmenite, Rutile and Zircon from raw sand with reference to actual content amounted to Rs. 142.15 crore.

(Paragraphs 2.1.14 and 2.1.16)

There was aggregate production loss valued at Rs. 4.47 crore due to under utilisation of wet mill.

(Paragraph 2.1.21)

Loss of production of Titanium Dioxide Pigment due to lower efficiency of the Titanium Dioxide Pigment Plant was Rs 358.59 crore.

(Paragraph 2.1.26)

The Company suffered production loss of Rs.40.80 crore as a result of premature failure of critical equipment (Rs.7.71 crore), and non-adherence to output norms of finished pigment (Rs.33.09 crore).

(Paragraphs 2.1.35 and 2.1.38)

Delay in installation of tunnel drier, interruption in supply of oxygen, procurement of packing system and failure to replace critical equipment in time resulted in production loss of Rs. 42.01 crore.

(Paragraphs 2.1.44, 2.1.47, 2.1.50 and 2.1.51)

The Company failed to avail of the benefit of reduced payment of import duty (Rs.1.11 crore) and import entitlement (Rs.11.98 crore) aggregating Rs.13.09 crore.

(Paragraphs 2.1.59 and 2.1.60)

The Company lost the benefit of savings in cost of Rs.18.86 crore due to non-implementation of recommendation of Central Power Research Institute on energy savings.

(Paragraphs 2.1.61 and 2.1.63)

Introduction

2.1.1 The Company was incorporated in February 1972 with the objective of carrying on the business of mining and processing of minerals and metals of any nature. The present activity of the Company is confined to beach sand mining; separation of Titanium bearing minerals in the Mineral Separation (MS) Plant; beneficiation of Ilmenite in the Ilmenite Beneficiation Plant (IBP) its chlorination and subsequent oxidation to manufacture Titanium Dioxide. The Mineral Separation Plant of the Company was having a capacity to produce 25,000 MT of Ilmenite per annum. A new modernised plant was installed (November 2002) at a cost of Rs.10.21 crore enhancing the combined capacity to 70,000 MT per annum. The Titanium Dioxide Pigment (TDP) Plant installed in 1984 at a cost of Rs.105 crore having a capacity of 22,000 MT per annum was partially modernised (1999 and 2001) enhancing the production capacity of the final product (TDP) to 36,000 MT per annum. The product (TDP) is mainly utilised in the industries engaged in manufacturing of paints, printing inks, plastic, paper, rubber, textile and ceramics, etc.

Scope of audit

Extent of coverage

2.1.2 The working of the Company was last reviewed and the results were included in the Report of the Comptroller and Auditor General of India for the year 1992-93 (Commercial). The Report was not discussed by the COPU. The present review conducted during the period from December 2003 to May 2004 covers the activities of the Company for the five years up to 2003-04.

2.1.3 Audit findings as a result of review on the performance and working of the Company were reported to Government/Management in July 2004 with a specific request to attend the meeting of Audit Review Committee for State Public Sector Enterprise (ARCPSE) so that the view point of Government/Management was taken into account before finalizing the review. The meeting of ARCPSE was held on 6 August 2004 and attended by the Principal Secretary, Industries Department, Government of Kerala and Managing Director of the Company. The views expressed by the members have been taken into account during finalisation of the review.

Organisational set-up

2.1.4 The Company is managed by a Board consisting of five Directors (all nominated by State Government) as on 31 March 2004. There was no Technical Director in the Board. The Managing Director is the Chief Executive of the Company who is assisted by two Joint General Managers in charge of Production and Personnel & Finance.

Share Capital

2.1.5 The authorised share capital of the Company was Rs.35 crore comprising 35 lakh equity shares of Rs.100 each. The paid up capital of the Company as on 31 March 2004 was Rs.30.93 crore wholly subscribed by the State Government.

Financial position and working results

2.1.6 The Company had finalised its accounts for the period up to 2002-03. **Annexures 9 and 10** summarise the financial position and working results of the Company under broad headings for the five years ending 2002-03.

It would be seen from the working results, that profit of the Company declined from Rs.128.59 crore in 2000-01 to Rs.93.58 crore in 2002-03 which was mainly due to drastic fall in the domestic sales as discussed in paragraph

2.1.57 *infra*. This was despite the fact that the Company enjoyed monopoly in domestic market.

2.1.7 For the purpose of cost reduction, product development and vendor development, three Committees were formed (November 2002/2003). No recommendations/measures were suggested by these committees so far (September 2004).

Loans to public Sector Undertakings (PSUs) and Co-operative societies

2.1.8 In deviation from its objective, the Company extended during the period 1995-96 to 2003-04 temporary loans to the tune of Rs.24.25 crore to 20 PSUs and three societies as per the directions of the State Government. The rate of interest and repayment terms were not specified by Government except for Rs.5 crore given to Kerala State Electronics Development Corporation Limited.

Based on a request from the Managing Director of The Kerala State Cashew Development Corporation Limited, the Company disbursed (September 1995) Rs.1.40 crore without obtaining the approval of the State Government. The amount had not been received so far (September 2004).

Loans given to other PSUs and societies remaining unrecovered was Rs. 24.25 crore as of March 2004.

Government intimated (November 2003) the Company that the chance of repayment of loans/payment of interest by the above PSUs were remote and directed the Company to treat these loans as interest free. The loan outstanding as on 31 March 2004 amounted to Rs. 24.25 crore.

Non-declaration of dividend

2.1.9 As per directions (December 1998) of State Government, the Company had to pay minimum dividend of 20 *per cent* to the Government from 1998-99 onwards since it was working on profit. The Company, however, declared and paid minimum dividend (Rs.6.19 crore) for the year 2002-03 only. The dividend not paid for the four years from 1998-99 to 2001-02 aggregated Rs. 24.74 crore.

Production

Production Process

2.1.10 The production process mainly consists of separation of heavy minerals such as Ilmenite, Rutile and Zircon from sand in the Mineral Separation (MS) Plant and production of Titanium Dioxide Pigment (TDP) in the pigment plant. Ilmenite and Rutile are used for production of TDP. The production of the final product (TDP) in the TDP plant involves four different processes :

- beneficiation of raw Ilmenite,
- chlorination of Beneficiated Ilmenite to Titanium Tetrachloride (U 200),
- oxidation of Titanium Tetrachloride (TTC) to raw Pigment (U 300) and
- raw Pigment to Finished Pigment (U 400).

A process chart showing the various activities involved in the production of TDP from raw sand is given in **Annexure 11**.

Production capacity

2.1.11 The Company is the sole producer of Rutile grade TDP in India. Six different grades of TDP are being manufactured by the Company. The performance of the Company up to the year 1992-93 resulted in accumulated loss of Rs.107.99 crore due to low level of capacity utilisation, high cost of production, low productivity and insufficient marketing strategy.

As a result of rehabilitation scheme sanctioned (February 1992) by the Board for Industrial and Financial Reconstruction (BIFR), the Company started earning profits since 1993-94 and came out (December 1996) of the purview of BIFR. With the introduction of Supported Combustion Process (May 1999) by replacing failure prone silica tubes with metallic inconel tubes, by pass feeding (October 2001), technological improvements carried out and installation of various equipment, the installed capacity increased from 22,000 MT to 36,000 MT per annum. The declared* installed capacity of 22,000 MT per annum had, however, not been enhanced due to reasons not on record.

Excess payment of production incentive due to non-reckoning of actual installed capacity amounted to Rs.6.46 crore.

2.1.12 In view of the failure to declare the actual available installed capacity as 36,000 MT per annum, the Company had been paying productivity linked incentive to its employees reckoning the installed capacity as 22,000 MT per annum. This consequently led to excess payment of production incentive of Rs.6.46 crore to the employees for the three years ending 2003-04.

Production Performance

2.1.13 Plant-wise production performance is discussed in succeeding paragraphs:

Mineral Separation Plant (MS Plant)

2.1.14 The Company had a Mineral Separation Plant with a capacity to produce 25,000 MT of Ilmenite per annum. A new Mineral Separation plant

* Represents the capacity of plant as declared by the company irrespective of the capacity actually installed

was installed (November 2002), enhancing the capacity to 70,000 MT per annum. The Company, however, had not fixed any standard for recovery of Ilmenite, Rutile and Zircon from the raw sand processed. The content of Ilmenite, Rutile and Zircon in the raw-sand available for processing as estimated in the study conducted (1999) by the Company was 25 to 35 per cent, 2.5 to 5 per cent and 7 to 15 per cent respectively. The probable recovery in respect of the above heavy minerals as per the Company's own laboratory report was estimated as 32 to 41.7 per cent, 4.1 to 6 per cent and 7 to 14.7 per cent respectively.

Audit observed that the actual recovery was much lower when compared to the laboratory reports resulting in heavy shortfall for the five years ending 2003-04 as shown in the table below:

Year	Raw sand Processed MT	Ilmenite				Rutile				Zircon			
		Content (per cent)	Recoverable MT	Recovered MT (per cent)	Short-fall MT	Content (per cent)	Recoverable MT	Recovered MT (per cent)	Short-fall MT	Content (per cent)	Recoverable MT	Recovered MT (per cent)	Short-fall MT
1999-2000	49901	32.4	16168	10726 (21.5)	5442	5.2	2595	504 (1)	2091	7	3493	417 (0.8)	3076
2000-01	41709	35.3	14723	10025 (24)	4698	6.0	2502	347 (0.8)	2155	7	2920	442 (1.0)	2478
2001-02	48091	41.7	20054	17200 (35.8)	2854	4.8	2308	455 (0.9)	1853	7	3366	290 (0.6)	3076
2002-03	124433	38.4	47782	30819 (24.8)	16963	4.1	5102	1117 (0.9)	3985	7	8710	600 (0.5)	8110
2003-04	188225	32.0	60232	50554 (26.9)	9678	4.1	7717	3894 (2.1)	3823	14.7	27669	1629 (0.9)	26040
Total	452359		158959	119324	39635		20224	6317	13907		46158	3378	42780
Value of short fall (Rs. in crore)					13.29				40.44*				88.42*

Short recovery of ilmenite amounted to Rs. 13.29 crore.

During the five years up to 2003-04, the actual recovery was only 1,19,324 MT against 1,58,959 MT of Ilmenite recoverable resulting in shortfall of 39,635 MT valued at Rs. 13.29 crore.

2.1.15 Besides, due to low recovery of Ilmenite, the Company had to purchase a total quantity of 15,165 MT of Ilmenite from Indian Rare Earths Limited (IRE), Chavara involving additional differential cost of Rs.281.84 per MT and Rs.1,026.58 per MT respectively during 2001-02 (2,854 MT) and 2002-03 (12,311 MT) resulting in avoidable expenditure of Rs.1.34 crore.

Management stated (April 2004) that low recovery of Ilmenite was due to old age of plant and machinery and after modernisation in November 2002, the capacity of the plant had been fully utilised. The reply is not tenable in view of the fact that even after modernisation, overall recovery during 2003-04 was

* Revenue loss since Rutile and Zircon were sold directly.

only 26.9 *per cent* against average content of 32 *per cent* as per the laboratory reports for the same period.

Revenue loss due to shortfall in recovery of Rutile and zircon was Rs. 128.86 crore.

2.1.16 Similarly against the recoverable quantity of 20,224 MT of Rutile and 46,158 MT of Zircon, actual recovery during the five years up to 2003-04 was only 6,317 MT and 3,378 MT respectively. At the average per MT rate of Rs.29,082 and Rs. 20,668 the aggregate revenue loss due to shortfall in recovery of 13,907 MT of Rutile and 42,780 MT of Zircon amounted to Rs. 128.86 crore.

Failure to refix the plant capacity after installation of magnetic separators resulted in avoidable payment of incentive of Rs. 2.73 crore.

2.1.17 The increased level of production of Ilmenite and Rutile since 2001-02 was due to installation (November 2001) of two additional magnetic separators in the old MS plant. Due to this there was a minimum average increase in production of 65 *per cent* per month in the old plant with reference to the production for October 2001. The Company, however, did not refix the capacity level. This resulted in avoidable payment of production incentive to employees amounting to Rs.2.73 crore for the three years ending 2003-04.

Collection and consumption of raw sand

2.1.18 The raw sand was collected mainly from sea wash accretions in the beach front by engaging contractors and also by outside purchase. Sea wash accretion and outside purchases during the five years up to 2003-04 were 3,19,151 MT and 34,835 MT respectively.

For collection of raw sand, Government allotted (1995) the Company on lease 135.045 Hectares (Ha) of mining land comprising four blocks (Block No.I, III, V and VII); out of which an area of 41.966 Ha under Block III as on 31 March 2004 was actually acquired which was sufficient for meeting the requirement of raw sand. Pending formal acquisition of mining area, the Company had also been resorting to purchase of raw sand from the remaining three blocks already allotted to it but not acquired. The losses and avoidable expenditure in the acquisition, collection and transportation of raw sand are discussed in the succeeding paragraphs.

Avoidable purchase of raw sand from outside source

2.1.19 The Government had allotted (1995) land measuring 41.966 Ha under Block III, to the Company which was sufficient for meeting the requirement of raw sand. Due to failure of the contractors to transport the sand in time from Block III, the Company since 2000-01 started purchasing raw sand from other blocks pending its final acquisition. During the four years ending 2003-04, the raw sand so purchased by the Company was 34,834.85 MT. The additional expenditure incurred on the purchase of raw sand from outside sources was Rs.54.24 lakh.

Management replied (August 2004) that the mining activity in the beach front was dependant on social, religious and environmental factors which affected the uninterrupted supply of sand necessitating outside purchase. The reply is not tenable as sufficient sand was available in the land owned by the Company and the uninterrupted supply could have been ensured by incorporating necessary penal provisions in the extraction and transportation contract.

Failure to extract raw sand

2.1.20 Audit scrutiny of the down time of the MS plant for the five years up to 2003-04 revealed that there was production hold up for 845 hours due to shortage of sand. The equivalent production loss of 2,499 MT of Ilmenite amounted to Rs.83.80 lakh. As the Company was having abundant stock of sand in the land acquired, stoppage of production for want of raw sand lacked justification.

Management stated (April 2004) that the interruption of production due to shortage of sand was on account of non-availability of dry sand during monsoon season. The reply is not acceptable as production loss mentioned above had been worked out after excluding the down time during rainy season.

Under utilisation of Wet Mill

2.1.21 Wet mill is the mineral processing plant in which heavy minerals in the feed material (raw sand) is separated. The wet mill installed in December 2002, as part of modernisation had a feeding capacity of 25 MT/hour.

During the period from December 2002 to March 2004, the mill was operated for 10,857 hours and raw sand processed was only 2,44,414 MT against the attainable processing of 2,71,425 MT resulting in under utilisation by 9.95 per cent (27,011 MT) and consequent short production of various minerals worth Rs.4.47 crore.

There was loss of production of Rs. 4.47 crore in wet mill.

2.1.22 Further, during the same period 807 hours of operation of the Wet mill were lost due to reasons such as break down of pumps, conveyor and shortage of fresh water, etc.; of this, 334 hours were lost during December 2002/January 2003 due to the avoidable reason of shortage of fresh water which had resulted in non-processing of 8,350 MT of raw sand and consequent short production of 224 MT of Ilmenite, 165 MT of Rutile and 64 MT of Zircon, worth Rs.1.31 crore. The Company had taken the remedial action only in February 2003 by laying separate water pipelines from TDP plant.

Titanium Dioxide Pigment (TDP) plant

2.1.23 Titanium Dioxide Pigment plant has four processing units viz., the Ilmenite Beneficiation (IB) Plant, Chlorination Unit (U 200), Oxidation Unit (U 300) and Pigment Finishing Unit (U 400).

2.1.24 Process-wise description of the production of Titanium Dioxide Pigment (TDP) is given in the flow chart in **Annexure 11**. The declared installed capacity of TDP plant as on 31 March 1999 was 22,000 MT per annum. Due to process modification, modernisation and installation of additional equipment, the actual available installed capacity increased to 36,000 MT per annum as on 31 March 2004 as discussed in 2.1.11 *supra*.

2.1.25 The table below gives the details of declared installed capacity, actual available installed capacity, budgeted production, actual production, etc., for the five years ending 2003-04:

Year	Declared Installed capacity	Actual installed capacity after modernisation	Budgeted Production	Actual production	Percentage of actual production to		
					Budgeted Production	Actual Installed capacity	Declared installed capacity
	In MT						
1999-2000	22,000	27,000	27,000	22,814	84.5	84.5	103.7
2000-01	22,000	28,500*	28,500	25,426	89.2	89.2	115.5
2001-02	22,000	36,000**	30,600	25,612	83.7	71.1	116.4
2002-03	22,000	36,000	32,000	28,136	87.9	78.2	127.8
2003-04	22,000	36,000	37,000	25,467	68.8	70.7	115.7

In this regard, following deserve mention:

- The percentage of production of TDP with reference to the actual available installed capacity declined over the years and came down from 89.2 *per cent* in 2000-01 to 70.7 *per cent* in 2003-04.
- The percentage of actual production with reference to budgeted production was in the range of 68.8 to 89.2 *per cent* only during the years 1999-2004. The reasons for shortfall in production were inefficient operation of TDP plant, excessive down time of plants, etc., as discussed in succeeding paragraphs.

Loss due to inefficient operation of TDP Plant

2.1.26 Details of declared capacity, actual installed capacity, hours available for operation, actual hours utilised and excess hours utilised for each of the process units in the TDP plant for the three year period of 2001-2004 were as given in **Annexure 12**.

* from December 2000 onwards

** from May 2001 onwards

Loss of production of finished pigment due to lower efficiency in operation amounted to Rs.358.59 crore.

It could be seen from the Annexure that the lower efficiency levels contributed to loss of production of Beneficiated Ilmenite (580 MT), Titanium Tetrachloride (19,932 MT) and raw Pigment (28,699 MT). The loss of production of Finished Pigment (52,487 MT) during the three years ending 2003-04 amounted to Rs.358.59 crore.

During ARCPSE meeting the Management and Government accepted that the achievable capacity of TDP was 36,000 MT per annum as against the declared capacity of 22,000 per annum. As such the production loss was avoidable.

Excessive down-time

2.1.27 A detailed analysis of the down time of each of the production centres with reference to the actual stream hours* available during the three years up to 2003-04 revealed that:

- the actual down time (1,25,274 stream hours) for TDP plant as a whole, represented 283 *per cent* of the projected down time (44,329 hours). It was also noticed that the percentage of down time due to controllable reasons like equipment failure and shortage of raw materials accounted for 41 to 59 *per cent* of the total down time during the three years up to 2003-04.
- in the Ilmenite Beneficiation (IB) Plant 30,169 stream hours {47 *per cent* of total down time (64,857 hours)} were lost due to equipment failure and process problems. Plant was idle for 7,171 stream hours during 2003-04 for want of processed input indicating imbalance in processing capacity. The stoppage on account of other reasons during 2003-04 was 3,373 stream hours.
- in the Chlorination unit (U 200) 28,544 stream hours, representing 72 *per cent* of total down time of 39,711 hours, was due to non-utilisation of one chlorinator, out of three, during the entire three year period up to 2003-04; out of 1,698 stream hours lost for other reasons, 1,689 hours related to the period during December 2003 to February 2004 when the output had to wait for processing in the Oxidation Unit (U 300).
- in the Oxidation unit (U 300) 7,456 stream hours were lost due to equipment failure and other process problems which worked out to 55 *per cent* of the total down time of 13,539 hours. Even though the plant was modified to have increased capacity, the shut-down due to critical equipment failure and process problems could not be controlled. This affected the overall production efficiency of the plant as discussed under para 2.1.35 infra.

* Actual hours multiplied by number of production streams in the plant

- stoppage of production in the Pigment unit (U 400) increased from 1,519 stream hours during 2001-02 to 5,056 stream hours in 2003-04.

The losses arising from down time on account of creation of excess capacity, premature failure of critical equipments, improper maintenance, etc., are discussed under paragraphs 2.1.30, 2.1.32, 2.1.35 and 2.1.36 *infra*.

Process-wise performance of TDP Plant

Ilmenite Beneficiation (IB) Unit

2.1.28 In the IB Unit ferric oxide in raw ilmenite is subjected to high temperature reduction to ferrous oxide in Rotary Roaster. The reduced ilmenite is leached with hydrochloric acid in Digester and is calcined in Rotary Calciner to get the beneficiated ilmenite.

Creation of excess capacity in Digester Plant

2.1.29 For an annual production of 30,000 MT of Beneficiated Ilmenite (BI), the plant was initially equipped with four rotary globe digesters having a total production capacity of 37,040 MT of Beneficiated Ilmenite. The production performance of the plant during the five years ending 2003-04 revealed that the capacity utilisation of the digesters ranged between 68 and 81 *per cent*.

There was wasteful investment of Rs.2.62 crore on creation of additional capacity.

2.1.30 The Company (as a part of the plan for overall capacity enhancement of TDP plant from 22,000 to 36,000 TPA) procured and commissioned (July 2003) two new digesters at a cost of Rs. 2.62 crore without considering the actual capacity utilisation of then existing digesters. While operating the plant with six digesters, actual production of beneficiated ilmenite during 2003-04 was 34,970 MT only which was well below the capacity of 37,040 MT available prior to commissioning of two new digesters. The investment in additional digesters was thus not justified.

Management stated (April 2004) that one or two digesters were always under repair and after addition of two digesters, production could be increased from 30,015 MT in 2002-03 to 34,000 MT during 2003-04. The reply is not tenable as even before purchase of the new digesters, the Company had an actual capacity to produce 37,040 MT per annum and the new procurement had only added to the imbalance in associated processes.

Chlorination Unit (U 200)

2.1.31 In the Chlorination Unit (U 200) of TDP plant, Beneficiated Ilmenite is routed through chlorine and calcined petroleum coke at 900° - 1000°C to obtain Titanium Tetrachloride (TTC). Impurities are removed and further treated with mineral oil and distilled to obtain pure TTC. Audit

noticed that there was creation of excess capacity in the process units and avoidable losses due to design defects, as discussed below:

Creation of excess capacity

2.1.32 For annual production of 22,000 MT of Finished Pigment (TDP), two chlorinators, with a capacity to produce 70,750 MT of TTC per annum had been installed (1984) in the chlorination unit. As a part of enhancement of capacity from 22,000 to 30,000 MT of TDP per annum, another chlorinator having 35,390 MT production capacity was purchased and installed at a cost of Rs 65.64 lakh, thereby enhancing the combined chlorination capacity to 1,06,140 MT as against the actual requirement of 69,000 MT as assessed by the Company.

The actual out put of TTC during the five years ending 2003-04 was, however, in the range of 55,486 MT to 66,808 MT indicating that the creation of additional capacity at a cost of Rs. 65.64 lakh was not justified.

Management replied (April 2004) that for two chlorinators total attainable production was only 44,600 MT per annum taking into account the down time for relining work. The reply is not acceptable as the attainable production of 69,000 MT per year was fixed by the Company after considering the down time for relining works also.

Defect in design of condensers

2.1.33 The company had been using condensers manufactured by Kirloskar Pneumatic Company Limited, Chennai (KPC) in the Brine Chilling Plant (BCP) since 1984. When problems developed (October 2002) in one of the condensers, the Company, instead of approaching KPC, replaced the condenser thrice (May 2003, October 2003 and February 2004) through various suppliers at a total cost of Rs.24.77 lakh with deviations from the original design. The condenser could not be put back to working condition rendering the entire expenditure wasteful. Subsequently, the new condenser procured from KPC was installed (March 2004) and its performance was satisfactory.

Audit noticed that the failure of the condenser was due to defects in the design as changed by the Company and there was loss of production (August/September 2003) of 450 MT of raw pigment valued at Rs.2.46 crore.

Oxidation Unit (U 300)

2.1.34 In the Oxidation Unit, purified Titanium Tetrachloride (TTC) obtained from U 200 was mixed with aluminium chloride and vapour of this mixture is oxidized in the oxidizer with pre-heated oxygen at 1,050°C to

produce raw TDP. Irregularities noticed in the operation and maintenance of the unit are discussed in succeeding paragraphs:

Production loss due to premature failure of critical equipment

2.1.35 With the introduction of process modification in the oxidation unit, the equipment such as oxidiser, by pass spool, reactor cooler, RG cooler and tube bundles were identified as some of the critical equipment and failure of any of them would result in shutdown of the stream production for several hours till its replacement. Eventhough the plant was modified with increased capacity, the shut down due to critical equipment failure and process problems could not be controlled which adversely affected overall production efficiency of the plant. By proper and periodical maintenance, the Company could have avoided such failure.

Premature failure of critical equipment resulted in production loss of Rs.7.71 crore.

The Company had not fixed standards of production based on the life of critical equipment. The Company, however, had fixed a minimum production yield of each equipment in U 300 on the basis of previous years' achievements. Audit observed that the minimum life in terms of production had not been achieved for these critical equipment during 2001-2004 resulting in loss of production and avoidable costs by re-conditioning/replacement. The Company suffered production loss of 1,409 MT of raw TDP valued at Rs. 7.71 crore due to premature failure of critical equipment during the period from April 2001 to January 2004.

Production loss due to damage of equipment

2.1.36 Considering the high vibration and oil pressure, the Company replaced (October 2002) the vent gas blower turbine in the Oxidation Unit (U 300) with two year old equipment stored under highly corrosive condition. While the optimum oil pressure under which the turbine was to be operated, was 2.2 Kg/cm² the actual pressure increased (December 2002) to 3.6 - 3.8 Kg/cm² and the equipment failed (16 December 2002). As reported (21 December 2002) by Deputy Manager (Technical Service) of the Company, the variation in pressure was ignored by the concerned personnel.

Failure of the equipment resulted in stoppage of production in both the streams for 16 hours involving a loss of 72 MT of raw Pigment valued at Rs.40.95 lakh. The damage to equipment due to operation under pressure variation for about two months period indicated negligence of the maintenance personnel.

Titanium Dioxide Pigment Finishing Unit (U 400)

2.1.37 In the TDP Finishing Plant, the raw pigment slurry obtained from Oxidation Unit (U 300) is passed through different sub-sections viz., sand milling and classification, treatment with various chemicals, filtration, drying,

micronisation, scrubbing, cooling and bagging the finished TDP. Irregularities noticed in the operation of the plant are discussed in succeeding paragraphs.

Low recovery of finished Titanium Dioxide Pigment

Non-adherence to input-output norm of finished TDP resulted in production loss of Rs. 33.09 crore.

2.1.38 As per the detailed project report (DPR), one MT of raw TDP was required to produce 1.05 MT of finished TDP. Based on the above norm, out of 1,25,944 MT of raw TDP processed, the Company should have produced 1,32,241 MT of finished TDP during the five years ending 2003-04. The actual production was, however, only 1,27,456 MT, resulting in loss of production of 4,785 MT of finished TDP valued at Rs 33.09 crore.

Management stated (August 2004) that the input/output ratio depended on the quality of raw material input, efficiency of equipment, etc. The reply is not acceptable as the consumption norms were fixed by the Company itself after taking into account all the above aspects. Further, the latest norms, as fixed by the Company (October 2003) prescribe the output for raw material in the same ratio of 1:1.05.

Revenue loss due to production of off grade Titanium Dioxide Pigment

2.1.39 The Company had not fixed any norm for off grade production. Low quality (off grade) pigment production during the five years ending 2003-04 was 2,077.55 MT. Major reason attributed for off grade production was deviation from colour specification fixed for the production of various grades. Colour changes during the process were caused mainly on account of leakage of water in certain critical equipment such as oxidiser, RC tube, by-pass spool, etc., arising due to lack of proper maintenance.

Production of off grade pigment resulted in revenue loss of Rs. 1.66 crore.

During the five years ended March 2004, the Company sold 1,597.60 MT of off grade pigment at lesser rates for an aggregate value of Rs.15.40 crore. Compared to the revenue realisable for standard quality of TDP, the loss worked out to Rs.1.66* crore. Adequate steps were not taken to rectify the problems and ensure the quality of products even though frequent colour changes in the raw pigment were noticed every year.

Avoidable usage of caustic soda lye

2.1.40 The Company prior to 2003-04 was using hydrated lime with minimum 70 per cent CA (OH)₂[#] for effluent treatment which was available in sufficient quantity. During 2003-04, Company decided to use hydrated lime

* (Rate per MT for Standard grade ; Rs.1,06,785 – Rate per MT for off grade ; Rs.96,395) x 1,597.60 MT

[#] Calcium hydroxide

with minimum 80 *per cent* $\text{CA}(\text{OH})_2$ to improve the quality and reduce waste material.

On facing shortage of hydrated lime {minimum 80 *per cent* $\text{CA}(\text{OH})_2$ }, the Company started (2003-04) using costlier caustic soda lye instead of switching back to hydrated lime of minimum 70 *per cent* $\text{CA}(\text{OH})_2$ specification which was previously used and also available in sufficient quantity.

This resulted in loss of Rs.2.17 crore towards extra cost on 3,768 MT of costlier caustic soda lye used during 2003-04.

Consumption

Consumption of raw-materials and chemicals

Value of excess consumption of raw-materials and chemicals worked out to Rs. 4.62 crore.

2.1.41 Norms for consumption of raw materials and chemicals were fixed/revised by the Company based on previous years' consumption. The Company was, however, not able to achieve standards fixed. Excess consumption of raw materials and chemicals during the five years ending 2003-04 amounted to Rs.4.62 crore, as shown in the table below :

Sl. No.	Item	Period	Standard consumption per tonne	Total Consumption (MT)			Value of excess consumption (Rs. in lakh)
				Actual	Standard	Excess consumption	
1.	Lecofine	2000-01	0.10	3,219	2,811	408	19.74
2.	Petroleum Coke (NPF)	2002-03 to 2003-04	0.135	9,975	8,773	1,202	46.08
3.	Make-up Acid	2000-01 to 2003-04	0.50	77,800	61,550	16,250	287.56
4.	Silica Sand	1999-2000 to 2003-04	0.028	4,312	3,560	752	31.76
5.	Liquid Chlorine	1999-2000 & 2001-02 to 2003-04	0.10	25,711	24,803	908	76.76
Total							461.90

Audit noticed that pond water was not being utilised for process operations in Ilmenite Beneficiation Plant (IBP) and Acid Regeneration Plant (ARP) as envisaged in the chloride recovery project which resulted in heavy loss of chlorides and ultimate excess consumption of Make-up acid.

Management stated (March 2004) that excess consumption of Make-up acid was due to presence of low chloride in spent acid generated after leaching. The excess consumption of liquid chlorine was stated to have occurred due to low reduction efficiency. This was caused due to use of NPF* grade petroleum coke as reductant in the Roaster since previously used lecofine was not available. The reply is not acceptable since chloride content as per Company's own laboratory reports was at the required level of 18 to 19 *per cent* all along.

* Non-calcined Pulverized Fuel

The Company admitted during ARCPSE meeting that they were yet to identify the actual reasons for the excess consumption of raw materials.

Process loss in Acid Regeneration Plant (ARP)

2.1.42 The ARP is designed to regenerate hydrochloric acid (HCl) from spent leach liquor obtained from the digesters after leaching. The spent leach liquor is processed to get 'dilute HCl' which is recycled back to the IB Plant.

Process loss during regeneration of Hydrochloric acid was Rs.2.69 crore.

As per norms fixed by the Company, one cubic meter of leach liquor should yield an equal quantity of HCl. However, out of the input of 4,12,374 MT of leach liquor, only 3,95,796 MT of HCl was regenerated during the five years up to 2003-04 indicating process loss of 16,578 MT amounting to Rs.2.69 crore.

Management stated (August 2004) that the input-output ratio of 1:1 could not be obtained due to low chloride content in the spent acid after switch over to the new reductant, 'petcoke'. The reply regarding low chloride content is not correct since as per Company's laboratory reports the chloride content was within the same parameters even after switch over to the new reductant.

Utilities

2.1.43 Operation of the TDP plant required utility items like air, water and steam. The Company had not fixed any standard for consumption of these items. Flow meters were also not installed to assess the exact quantity of air consumed by each production centre. Consequently, excess usage of air by different centres was not being ascertained and controlled. A comparison with reference to the actual consumption of air, water and steam per MT production of TDP for the year 2000-01, revealed excess consumption of utilities amounting to Rs.3.22 crore during the two years ended 2002-03 as per details indicated in **Annexure 13**.

Excess consumption of utilities resulted in loss of Rs.3.22 crore.

Management stated (March 2004) that the action for installation of flow meters was being taken for assessing the water and steam consumption.

Procurement of capital equipment

Delay in Installation of Tunnel Drier

2.1.44 With a view to retrofit* the then existing conveyor of the tunnel drier used for drying Titanium dioxide slurry (raw TDP) the Company placed orders (January 2000) on the original equipment manufacturer for the supply

* replacement of existing components with component of greater efficiency

of conveyor belts and accessories. Though the specification for 350 numbers stainless steel plates required for the conveyor was of 12 feet 6 inches, the Company wrongly indicated the length as 10 feet 7 1/8 inches in the purchase order. The items ordered for, were received in September 2000. As per contract the conveyer could have been commissioned within 12 to 14 weeks after receipt of materials i.e., by January 2001. The steel items of wrong specification was replaced (December 2001) and the tunnel drier was finally commissioned (February 2002) after a delay of 13 months.

Loss of production arising from failure to order right specification steel items worked out to Rs. 25.96 crore.

Audit noticed that the average daily production of TDP after retrofit of the tunnel drier recorded an increase of 13 MT. Based on this additional production, the delay of 13 months in completion of the work, arising from Company's failure to order steel items of right specification, resulted in production loss of 3,848 MT (296 days) valued at Rs.25.96 crore.

Management stated (August 2004) that the conveyor parts supplied by the supplier were not as per specification in the order. The reply is not correct since the specification given by the Company in the original order itself was wrong.

Delay in installation of Centrifugal Air Compressor

2.1.45 At the time of implementation (1984) of the project, the Company installed two reciprocating air compressors in their Oxygen plant. In view of the deteriorating performance of the existing two compressors and the anticipated savings in cost of Rs.1.34 crore per annum by way of power consumption, maintenance cost and holding of inventory of spares, the Company initiated (September 2000) proposal for their replacement by one new compressor at a cost of Rs. 1.63 crore.

Ignoring the huge savings in cost, the Company, however, delayed the procurement and replacement of the compressor and placed orders only in June 2003.

Delay in replacement of compressor deprived the Company of savings in cost of Rs.5.36 crore.

The delay in replacement of the compressor at a cost of Rs. 1.63 crore deprived the Company of the benefit of savings in cost to the extent of Rs. 5.36 crore for the four years ending 2003-04.

Management stated (April 2004) that they planned replacement of the compressors way back in 1989-90 but final decision was taken only in 2001 as there were more urgent requirements during the period. The reply is not convincing since the Company had been generating huge surplus funds since

1993-94 and decision to prolong the investment having annual savings of Rs.1.34 crore does not appear to be prudent.

Delay in setting up Oxygen Plant

2.1.46 The Oxygen Plant installed in the Company in 1984 had an installed capacity of 50 TPD* (1,500 NM³/hr). With the introduction of supported combustion process and bypass feeding and installation of new equipment since 1999-2000, the production capacity of Titanium Dioxide Pigment Plant increased from 22,000 to 36,000 TPA. This in turn necessitated additional daily requirement of 28 Tonnes of oxygen per day after considering the actual captive production of 37 TPD.

Purchase of oxygen from outside sources at rates higher than the cost of production resulted in extra expenditure of Rs.1.45 crore.

There was loss of production of pigment valued at Rs.7.64 crore due to interruption in supply of oxygen.

Though the Company planned (January 2000) to install a 100 TPD capacity Oxygen Plant, the project was not pursued further. The Company instead had been purchasing oxygen from outside sources at rates higher than the cost of production. The quantity of oxygen so purchased during the years 2000-01 to 2002-03 at the higher rates of Rs. 4.52, Rs. 8.30 and Rs.7.70 per NM^{3**} was 7,83,275, 13,99,023 and 17,02,652 NM³ respectively as against the cost of production of Rs.2.55, Rs.2.34 and Rs.4.98 per NM³ resulting in extra expenditure of Rs. 1.45 crore.

2.1.47 Audit further noticed that there was interruption in supply of oxygen by the suppliers resulting in loss of production of 1,345 MT of raw pigment valued at Rs. 7.64 crore.

2.1.48 While the Company initiated (July 2003) measures for installation of a 125 TPD Oxygen Plant taking into account the future requirement, the Purchase Sub-Committee of the Board decided (November 2003) to set up a 10 TPD Oxygen Plant as an interim arrangement, at Rs.2.17 crore. Erection work of this plant by the contractor was in progress (June 2004). The decision to set up a small plant when the installation of a higher capacity plant of 125 TPD was in progress, lacked justification.

Avoidable production loss due to delay in placement of order

2.1.49 The Company used to schedule the annual shut down maintenance during April/May every year. To suit the maintenance schedule, the Company had to plan procurement of equipment in such a way that the equipment were available for replacements in time. Audit, however, noticed cases of failure in planning and procurement of equipment, leading to delay in replacement and resultant production loss, as discussed in succeeding paragraphs.

* Tonne per day

** Nano Cubic Metre – unit of volume flow of gas

Product packing system

Delay in placing order for procurement resulted in avoidable production loss of Rs.7.32 crore.

2.1.50 As part of the augmentation and de-bottlenecking of U 400 the Company decided (September 2001) to procure and replace the product packaging system. Though tenders were received and opened (January 2002), the purchase order for the system with a delivery period of only 26 weeks was placed in December 2002 only. Due to delay, the packaging system could not be installed during the annual shut down in May 2003. The system was delivered (August 2003) and installed (November 2003) after shut down of the plant for 555 hours. This resulted in avoidable production loss of 1,338 MT valued at Rs.7.32 crore.

Re-cycled Gas Blower

2.1.51 The Company decided (August 2002) to replace the then existing Re-cycled Gas blower in U 300 during the annual shut down in May 2003. Eventhough the offer from the firm with a delivery period of six months was received in October 2002, the order was issued only in January 2003. Change in design after placing the order further delayed the delivery and the equipment was received only in December 2003. Instead of conducting replacement along with the annual shut down in May 2004, the Company undertook the replacement in February 2004 resulting in avoidable shut down of the plant for 16 hours.

Loss of production due to avoidable shut down of plant worked out to Rs.1.09 crore.

The failure to replace the equipment in May 2003 as planned earlier also resulted in loss of 83 hours production due to leakage and vibration problem in the old blower.

The total production loss due to avoidable shut down of the plant for 99 hours worked out to 200 MT valued at Rs. 1.09 crore.

Purchase policy and procedure

2.1.52 The Company evolved (October 2001) a new purchase policy for the purchase of raw materials, chemicals, stores and spares which laid down invitation of open tenders in annual contracts giving adequate publicity, negotiation with lowest tenderer in case of unreasonable rates, procurement of bought out items of original equipment from its manufacturers, etc.

Deviations as well as deficiencies in the laid down purchase policy and procedure led to avoidable expenditure and losses as discussed in succeeding paragraphs:

Purchase of Petroleum Coke

2.1.53 The Company invited (February 2003) tenders for the purchase of 5,964 MT of Petroleum Coke NPF grade. The lowest rate of Rs.4,932/MT was

abnormally higher than the previous rate (Rs. 2,920/MT) and should have been negotiated or retendered as per laid down purchase policy of the Company. The Company, however, procured 5,068 MT at the higher rate of Rs. 4,932 per MT. Audit observed that the Company neither negotiated nor re-tendered as per laid down purchase policy. The procurement at higher value was in violation of the purchase policy.

Undue delay in procuring expansion bellow

2.1.54 Two duct expansion bellows were in operation in both the streams of oxidation unit of the Company. A purchase enquiry was floated (January 2003) to import the material only when the reorder level was reached. No further steps were, however, taken for procurement. The Company faced (9 September 2003) a stock out situation for bellows and the plant had to be shutdown/operated with oxygen leak till 15 September 2003 resulting in loss of production of 82 MT of raw pigment valued at Rs.46.57 lakh.

Management accepted (August 2004) the observation.

Marketing

2.1.55 The Company is the sole producer of Rutile grade Titanium Dioxide Pigment (TDP) in India and has been selling six grades of pigment in the domestic as well as foreign market under the brand name 'KEMOX'. The Company earned profit for the first time in 1993-94 since its inception due to improvement in capacity utilisation and sale of pigment. The high import duty on TDP in the past also helped the Company in facing increased competition from multi national companies in the domestic market.

The sale of TDP constituted about 99 *per cent* of the Company's annual sales. The indigenous sales were being made through 26 stockists. Though the Company is the sole producer of Rutile grade TDP in the country, quality-wise its products ranked only third in the Indian market. This was due to low quality, weight variations, non-development of new grades, etc.

Sales Performance

2.1.56 The table below compares the Company's actual sales with budgeted sales of TDP for the five years ended 2003-04:

Year	Budgeted Sales (MT)	Actual Sales (MT)			Percentage of Actual sales to Budgeted sales
		Domestic	Export	Total	
1999-2000	27,000	23,300	84	23,384	87
2000-01	28,392	23,449	53	23,502	83
2001-02	30,000	24,447	1,751	26,198	87
2002-03	31,700	19,572	7,174	26,746	84
2003-04	40,000	20,140	7,286	27,426	69

It would be seen that with reference to budgeted sales the actual sale recorded gradual decline and reached all time low of 69 *per cent* during the year 2003-04. Audit observed that budgeted sales could not be achieved due to fall in production arising from heavy down time, equipment failure, lower efficiency, etc. which were controllable.

Domestic vis-à-vis Export sales

2.1.57 The Company had been exporting TDP to 20 countries. Details of quantity sold, price per MT, margin per MT, etc., for domestic and export sales for three years ending 2002-03 were as follows:

	2000-01		2001-02		2002-03	
	Export	Domestic	Export	Domestic	Export	Domestic
Quantity sold (MT)	53	23,449	1,751	24,447	7,174	19,572
Total quantity sold	23,502		26,198		26,746	
Average Selling Price/MT (in Rs.)	88,850	1,20,000	69,440	1,00,000	75,025	1,04,000
Cost of Sales (in Rs.)	68,788	68,788	67,825	67,825	70,899	70,899
Margin per MT (in Rs.)	20,062	51,212	1,615	32,175	4,126	33,101
Total margin(Rs. in lakh)	11	12,009	28	7,866	296	6,479
Profit before tax (Rs. in crore)	128.59		100.51		93.58	

In this regard the following deserve mention:

- Though the total sale increased from 23,502 MT (2000-01) to 26,746 MT (2002-03), the profit before tax reduced from Rs.128.59 crore (2000-01) to Rs.93.58 crore (2002-03). The main reason for the decline in profit was reduction in quantum of domestic sale where the margin per MT was high as compared to exports.
- The margin on exports was very low when compared to that for domestic sales. Audit observed that due to decrease of import duty (2002-03) of TDP from 35 (2001-02) to 30 (2002-03) *per cent*, the Company faced competition in the domestic market and the average price of TDP had come down from Rs.1.04 lakh per MT during 2001-02 to Rs.1.02 lakh per MT in 2002-03. In view of the reduction in quantum of sales in the domestic market, the Company started export of TDP on a large scale from the year 2002-03. Despite the huge difference in margin between export sales and domestic sales, the Company did not formulate a strategy to reduce prices of domestic consumers with a view to increase the domestic sales so as to earn higher margin.
- It was noticed that against the approximate annual domestic demand of 50,000 MT of TDP (Rutile grade), the Company's share was ranging between 19,572 MT and 24,447 MT during the three years ending 2002-03 despite a 10 *per cent* growth in the major consumer companies.

Special discount to Asian Paints Limited (APL)

2.1.58 For the purpose of ensuring domestic sale of TDP, the Company had been allowing discount on the price fixed for direct customers. The sale price of TDP so fixed for the year 2003-04 in respect of the two half years (April to September and October to March) was Rs.1,04,907 per MT and Rs.97,716 per MT respectively.

Audit observed that in the contract (July 2003) with Asian Paints Limited (APL) for the sale of TDP during 2003-04, the Company allowed special discount and fixed the half yearly prices at Rs.1,03,530 per MT and 95,490 per MT respectively. The special discounts were allowed to APL for a total off take of 7,500 MT for the year 2003-04 against which APL lifted only 6,521 MT. Despite this, APL was allowed the additional benefit of discount amounting to Rs.1.09 crore on the above quantity during the year 2003-04. Since APL failed to achieve the assured off take of 7,500 MT the payment of discount was not justifiable.

Non-availing of export/import incentives

Export Promotion Capital Goods (EPCG) Scheme

2.1.59 The new Exim Policy (2003-04) allows import of capital goods including spares at five *per cent* concessional duty subject to fulfilment of export obligation amounting to eight times of duty saved within a period of eight* years.

Benefit of reduced payment of import duty forgone due to non-availing of concessions amounted to Rs. 1.11 crore.

During 2003-04, the Company imported spares of CIF value Rs. 4.38 crore and paid duty amounting to Rs. 1.32 crore (basic duty Rs.1.13 crore and additional duty Rs. 19.65 lakh). The Company had, however, not availed of the concessional duty as permitted in the new EPCG scheme except in one case. The benefit of duty forgone in this connection worked out to Rs.1.11 crore. The reasons for non-availing of the concessional duty were not on record.

Non-availment of benefit of duty remission

2.1.60 Being an exporter of TDP, the Company was eligible for duty remission on import of raw materials to the extent approved by Director General of Foreign Trade (DGFT) under the Duty Entitlement Pass Book (DEPB) scheme. For availing this benefit, the Company had to get the approval of DGFT for standard input-output norm of production (SION).

The Company did not avail of entitlement benefit of Rs. 11.98 crore.

The Company had not availed of any benefit under DEPB as SION for Rutile grade TDP had not been got fixed by DGFT. The Company's failure to avail of the benefit of the scheme during the period 2001-2004 resulted in a loss of

* Time limit was 12 years in case of CIF value of imports of Rs.100 crore or more.

entitlement to the extent of Rs. 11.98 crore (@ 10 per cent of FOB value of Rs. 119.77 crore).

Management stated (May 2004) that DEPB benefit foregone was much less than what has been pointed out by Audit as the value of import content in the export product was not substantial. The reply is not tenable as during the period huge quantity of paper bags were imported for packaging in the export product for which benefits under DEPB scheme could have been availed of. Besides, the unutilized benefits of DEPB entitlements, if any, could also have been transferred to other users.

Energy Audit

The Company lost the benefit of savings in cost of Rs.1.36 crore due to non-implementation of the recommendations of CPRI.

2.1.61 The Energy Audit of the Company was conducted (December 2001 to March 2002) by the Central Power Research Institute (CPRI), Thiruvananthapuram. The Energy Audit Report (June 2002) identified 14 areas under the Electrical Section where an overall cost saving of Rs.1.07 crore per annum was expected after a capital investment of Rs.79.78 lakh. The Company, however, implemented 11 schemes, and three major schemes viz., replacement of conventional starters (Rs.19.90 lakh), replacement of high loss capacitors (Rs.15.62 lakh) and installation of capacitor bank (Rs. 42.34 lakh) involving annual savings of Rs.77.86 lakh were not implemented. Due to delay in implementation of these three schemes, the Company lost the benefit of savings in cost to the extent of Rs. 1.36 crore for the period from July 2002 to March 2004.

2.1.62 Under the mechanical portion also 13 schemes (including replacement of furnace oil with coal) involving possible annual cost savings of Rs.10.30 crore was identified against a capital investment of Rs.2.54 crore. None of the above schemes was, however, implemented.

Non-usage of coal in the Boiler Plant

2.1.63 Till 1988-89 the Company was using mainly coal as fuel in the Boiler Plant for production of steam. The usage of coal was stopped in 1995 and the Company started using furnace oil as fuel in view of economy in cost. Though the price of furnace oil recorded huge increase thereafter, the Company had not changed the fuel to coal which was cheaper.

Saving in cost of Rs.17.50 crore was foregone due to failure to use coal in place of costly furnace oil.

As per the Report (June 2002) of Central Power Research Institute, change over from furnace oil to coal would entail annual cost saving of Rs.8.75 crore. The capital cost estimated for switching over to coal was only Rs.2 crore and operating cost Rs.20 lakh per annum with a pay back period of three months. The Directors Report on the accounts of 2001-02 also envisaged a saving of Rs.9 crore by substituting furnace oil with coal. The Company, however, continued with the usage of furnace oil. With reference to the cost saving of

Rs.8.75 crore as reported by the CPRI, the benefit forgone by the Company was to the tune of Rs.17.50 crore for the two years ending 2003-04.

Management stated (August 2004) that the Engineering consultant MECON had been engaged to examine and to recommend the type of fuel to be used and the fuel would be decided after detailed study by MECON.

Inventory control

2.1.64 The position of inventory of raw-materials and stores and spares, held by the Company as at the end of each of the five years ending 2002-03 is given in the table below :

(Rs. in lakh)

Particulars	1998-99	1999-2000	2000-01	2001-02	2002-03
Raw materials	193.59	330.22	434.58	621.91	418.15
Stores and spares and fuel	3,166.64	3,570.85	3,843.45	3,626.79	3,160.10
Other tools and Equipments	5.88	5.93	7.38	7.57	7.68
Total	3,366.11	3,907.00	4,285.41	4,256.27	3,585.93

Audit observed that:

- the stock of stores and spares at the end of each of the five years ending 2002-03 represented 12.5 to 16.8 months' production requirement indicating abnormal level of inventory holding.
- in the case of stores and spares the Board had sanctioned write off of 6,735 items valued at Rs.1.82 crore held for more than nine years without issue; but no action had been taken for their disposal. It was also noticed that there was no issue out of 288 items of stores and spares purchased during April 1999 to May 2002 valued at Rs.3.64 crore.
- out of 10,600 items of stores and spares valued at Rs.6.85 crore there was no issue from April 1999 onwards.
- improper planning of procurement of stores and spares had resulted in accumulation of non-moving inventory worth Rs.10.49 crore. The Company had not made any attempt to identify the critical spares so as to minimise the inventory holding.
- there was abnormal delay in getting replacement for rejected items from suppliers and proper follow up action for replacement/recovery was lacking. As on 31 March 2004 an amount of Rs. 46.41 lakh was pending recovery from 35 suppliers since 1986-87 towards rejected materials.

Internal Audit and Internal Control

Internal Audit

2.1.65 The Company had its own internal audit wing headed by Manager who is assisted by three assistants. In spite of adverse comments made by the

Statutory Auditors repeatedly in their reports on accounts for the years from 1999-2000 onwards the Company had not strengthened the internal audit wing.

Internal Control

2.1.66 The internal control system in the Company was found to be inadequate in certain areas. The deficiencies observed in the internal control system were as under:

- After obtaining general approval of the Board for capital works of less than Rs.2.5 crore, the actual expenditure was not intimated to the Board.
- Failure to reconcile the quantity of unburned petroleum coke issued to a society for sieving, resulted in doubtful recovery of petroleum coke worth Rs.6.04 crore.

Miscellaneous topics of interest

Short remittance of advance income tax

2.1.67 For the financial years 1999-2000 and 2000-01 the Company had taxable income of Rs.111.33 crore and Rs.129.05 crore against which the tax payable was Rs.42.86 crore and Rs.51.04 crore respectively. The advance tax paid under section 208 of the Income Tax Act, 1961 for the three quarters ended 15 March for the two years, however, fell short of the actual tax by Rs.2.72 crore and Rs.4.43 crore. On the above short paid amount the Company had to pay interest under section 234 B and 234 C amounting to Rs.1.42 crore as levied by IT Department.

Wrong estimation of income resulted in short payment of advance income tax leading to avoidable payment of interest of Rs. 1.42 crore.

Audit noticed that the Company had sufficient funds in current account to make timely payment of quarterly advance tax and failure to prepare correct estimate of the income resulted in avoidable payment of interest.

Interest loss on avoidable payment of advance tax

2.1.68 As per Section 244A of the Income Tax Act, 1961, the assessee was entitled to interest on excess tax paid only if the tax was paid in excess of that specified in the notice of demand issued under Section 156 of the Act *ibid*. The Company while discharging the tax liability for the financial years 1998-99 and 1999-2000 paid Rs.2.10 crore (September 1999 to August 2001) in excess without any tax liability or demand from the IT authorities. No interest was allowed on these amounts as these remittances were not coming under the pursuance of Section 156 of the Act.

The excess deposit of Rs.2.10 crore by way of income tax, when there was no tax liability to be discharged, resulted in loss of interest income of

Rs.47.42 lakh at the admissible rate of interest of 5.5 *per cent* per annum on treasury savings account for the period from September 1999 to March 2004.

The above matters were reported to Government in July 2004; their reply had not been received (September 2004).

Conclusion

The Company, incorporated in 1972, had been separating minerals from beach sand in their Mineral Separation Plant. There was heavy shortfall in recovery of Ilmenite, Rutile and Zircon from sand, leading to revenue loss. Though the Company enjoyed monopoly in the production of Titanium Dioxide Pigment in the country, it could not achieve optimum production due to lower efficiency of plant, premature failure and delay in procurement/replacement of critical equipment, non-adherence to output norms, failure to order right specification materials, etc. Excess consumption of chemicals, raw-materials and utilities also contributed to increase in cost. The Company did not avail of the savings in cost arising from replacement of compressors and substitution of low cost coal in place of furnace oil as fuel. The Company's domestic sales showed a declining trend and products were exported fetching comparatively lower contribution. The incentive paid to workers were not based on efficiency and with regard to the actual installed capacity.

The Company ought to reduce the inefficiencies in operation of the plant with a view to increase output. Measures need to be initiated to reduce the costs and increase the contribution especially in view of the declining trend in prices. Proper marketing strategy has to be evolved to increase domestic sales especially in view of the Company's lower share in the high priced domestic market.



2.2 TRACO CABLE COMPANY LIMITED

Highlights

The Company was incorporated in February 1960 with the main objective of manufacturing all types and sizes of wires, cables and flexibles for electrical power transmission and distribution, telecommunication, building wiring, etc. The Company has a power cable manufacturing division at Irimpanam and telephone cable manufacturing division at Thiruvalla.

(Paragraph 2.2.1)

Creation of surplus capacity for Jelly Filled Telephone Cables despite lower demand and under utilisation of existing capacity resulted in wasteful investment of Rs. 1.45 crore.

(Paragraph 2.2.9)

Due to delayed supplies, DOT/BSNL levied penalties amounting to Rs. 4.35 crore

(Paragraph 2.2.28)

Delay in settlement of claims by DOT/BSNL resulted in interest loss of Rs. 2.95 crore

(Paragraph 2.2.30)

Company incurred avoidable expenditure amounting to Rs.1.40 crore towards overtime and production incentive for the four years up to 2002-03.

(Paragraph 2.2.32)

Idle wages paid during the period of production hold up from May 2002 to March 2004 amounted to Rs. 4.07 crore

(Paragraph 2.2.33)

Introduction

2.1.69 Traco Cable Company Limited was incorporated in February 1960 with the main objective of manufacturing all types and sizes of wires, cables and flexibles for electrical power transmission and distribution, telecommunication, building wiring, etc. The Company has a power cable manufacturing division at Irimpanam and a telephone cable manufacturing division at Thiruvalla. The Power Cables Division was commissioned in 1965 with annual capacity to produce 1500 MT of aluminum throughput and 2.5 Lakh Conductor Kilometer (LCKM) respectively. It manufactures Poly Vinyl Chloride (PVC) insulated heavy duty cables, wires, flexibles, bare aluminium conductors and smaller size Jelly Filled Telephone Cables (JFTC). The installed capacity (7.30 LCKM per annum) of the Jelly Filled Telephone Cable (JFTC) Division commissioned in March 1991 was further expanded (March 1996) to 15 LCKM per annum.

Organisational set-up

2.1.70 As on 31 March 2004 the management of the Company was vested in a Board comprising 10 directors including two Government nominees. The Managing Director is the Chief Executive of the Company who is assisted by Chief of Works (at each of the two divisions), Chief of Finance, a Company Secretary and heads of Marketing, Personnel and Administration, etc.

Scope of Audit

Extent of Coverage

2.1.71 The performance of the Company was last reviewed and results thereof included in the Report of the Comptroller and Auditor General of India for the year 1994–95 (Commercial). The Report was discussed by the COPU in August 2002 and their recommendations included in the 31st Report were presented (June 2003) to the Legislature. Action Taken Notes thereon were awaited (August 2004).

The present review conducted during the period January to May 2004 covers the activities of the Company for the five years ending 2003–04.

2.1.72 Audit findings as a result of review on the performance and working of the Company were reported to Government/Management in July 2004 with a specific request to attend the meeting of Audit Review Committee for State Public Sector Enterprise (ARCPSE) so that the view point of Government/Management was taken into account before finalising the review. The meeting of ARCPSE was held on 5 August 2004 and attended by the Additional Secretary, Industries Department, Government of Kerala and

Managing Director of the Company. The views expressed by the members have been taken into account during finalisation of the review.

Share Capital

2.1.73 The authorised share capital of Rs. 15 crore comprised 1.475 crore equity shares of Rs. 10 each and 2.50 lakh preference shares of Rs. 10 each. The paid-up share capital as on 31 March 2004 amounted to Rs. 13.02 crore, contributed by Government of Kerala (Rs. 12.82 crore); KSIDC, KFC, other institutions (Rs. 10 lakh) and public (Rs. 9.76 Lakh).

Financial Position and Working Results

2.1.74 The Company had finalised its accounts for the period up to 31 March 2003. The financial position and working results of the Company for the five years up to 31 March 2003 were as given in **Annexure 14** and **15** respectively. Analysis thereof revealed that;

- the Company's paid up capital of Rs.13.02 crore as on 31 March 2003 was fully eroded by accumulated loss of Rs.17.65 crore due to dismal performance since 2001-02. The net worth of the Company was negative.
- the liabilities of the Company included Rs. 6.67 crore being guarantee commission payable to Government since 1998-99. Interest on Government loans amounting to Rs. 1.61 crore as well as interest and penal interest on loan from KIRFB amounting to Rs. 2.13 crore were also over due as on 31 March 2003.
- The sales performance of the Company had substantially declined from 90.86 crore in 2000-01 to 29.24 crore in 2002-03. Consequently, the Company which was earning profit till 2000-01, incurred losses to the tune of Rs.9.06 crore and Rs.8.87 crore in 2001-02 and 2002-03 respectively.
- The profit of Rs. 9.17 crore achieved in 1999-2000 was due to write back of interest on IDBI and IFCI loan (Rs.7.34 crore) on the basis of waiver allowed as part of a One Time Settlement scheme.

Production Performance

2.1.75 The production performance of the Company during the five years ending 31 March 2004, was as indicated below:

Year	Power cables (at Irimpanam)			Telephone cables
	All Aluminium Conductors (AAC) & Aluminium Conductors Steel Re-inforced (ACSR)	All Aluminium Alloy Conductors (AAAC)	PVC covered conductors and bare copper conductors	JFTC at Thiruvalla and Irimpanam
Unit	(MT)	(MT)	(Kms)	(LCKM)
Installed capacity	1500	1500	32918	17.50
	Actual production			
1999-2000	694.155	182.73	149.482	12.34
2000-01	1377.130	152.25	644.082	12.72
2001-02	255.176	NIL	647.815	7.03
2002-03	1074.814	NIL	423.873	2.57
2003-04	1331.150	NIL	328.950	0.72

The overall production of PVC covered conductors showed a declining trend from 2002-03 while the production of JFTC came down from 12.34 LCKM in 1999-2000 to 0.72 LCKM in 2003-04 which was mainly due to non-receipt of orders from Department of Telecommunication (DOT)/ Bharat Sanchar Nigam Limited (BSNL).

The production of All Aluminium Alloy Conductors (AAAC) had to be discontinued since the project was taken up without any firm commitments from the State Electricity Board as discussed in paragraph 2.2.10 infra.

Division-wise production is analysed in the succeeding paragraphs.

Power Cables Division

Production of ACSR & AAC

2.1.76 Irimpanam Division of the Company had been producing Aluminium Conductor Steel Reinforced (ACSR) and All Aluminium Conductors (AAC). The major customer was Kerala State Electricity Board (KSEB). While the Division had installed capacity to produce 1500 MT of conductors per annum, based on aluminium throughput, the actual annual production during the five years ending 2003-04 ranged between 255.18 MT and 1377.13 MT. The percentage of capacity utilisation during the above period ranged between 17.01 and 91.81.

The lowest capacity utilisation of 17.01 *per cent* of installed capacity was recorded during 2001-02, which was attributed to non-receipt of adequate orders from the State Electricity Board. The production of conductors at the Division was not cost effective on account of high labour cost and overhead charges. As a result, the Company could not secure enough orders from potential customers and depended heavily on KSEB for order. No cost control

measures were initiated to reduce actual cost and capture market from other customers at competitive rates.

Telephone cables

2.1.77 In order to supplement the annual production capacity of 15 LCKM at JFTC Division, Thiruvalla, the Company created (1996-97) additional installed capacity of 2.50 LCKM, at the power cable Division, Irimpanam at a capital cost of Rs.1.45 crore. The maximum capacity utilisation at Thiruvalla, ever since the installation of additional capacity at Irimpanam, was 81.38 *per cent* of the installed capacity and capacity equivalent to 2,79,300 CKM all along remained unutilised. The maximum annual production of JFTC at Irimpanam was only 61500 CKM. The production of JFTC at the Division was ultimately discontinued in May 2002 due to decline in demand from DOT/BSNL. The type approval by the customer for the product which was a pre-requisite for production of JFTC was also not obtained since then.

Creation of surplus capacity despite lower demand and under utilisation of existing capacity resulted in wasteful investment of Rs. 1.45 crore.

Thus, the decision to create surplus capacity at Irimpanam despite lower demand and under utilisation of the then existing capacity at Thiruvalla, resulted in wasteful investment of Rs.1.45 crore.

Management stated (August 2004) that phasing out of JFTC technology at such a rapid pace, introduction of cellular telephones on massive scale and excess capacity creation for optical fibre cables, were developments not anticipated at the time of capacity expansion.

The reply is not tenable since the pre-expansion capacity at JFTC Division, Thiruvalla itself was not fully utilised even after going in for capacity expansion at Irimpanam, and the unutilised capacity (2,79,300 CKM) was more than the additional capacity created (2,50,000 CKM). The Company should have also taken note of the obsolescence in the JFTC technology due to emerging technological improvements in the field by other firms in the country.

Creation of idle capacity

2.1.78 In anticipation of demand from KSEB, the Company set up (June 1995) facilities for manufacture of 1500 MT per annum of All Aluminium Alloy Conductors (AAAC), at a cost of Rs.62.50 lakh. Production with this facility could not be stabilised till January 2000 due to operational problems in the main equipment. Despite this, the Company accepted (February/March 1998) bulk orders from KSEB for supply of 1745 km and could not deliver 1341.66 km within the stipulated delivery period, due to non-stabilisation of production. Supplies against repeat orders for 518 km accepted during April 2000 to June 2000 were also delayed. The loss due to

penalty and unfavourable price variation on account of the delayed delivery amounted to Rs.31.11 lakh.

There was short recovery in cost of AAAC amounting to Rs.1.81 crore.

2.1.79 The production of the material before rectifying the operational problems also caused higher level of rejection. The loss suffered due to excess consumption of Aluminium Alloy during production without stabilisation amounted to Rs.38.18 lakh (net of scrap value). Further sales were executed at prices below the cost of production, leading to short recovery of cost of Rs.1.81 crore.

Audit also observed that KSEB discontinued procurement of AAAC since 2000-01 without assigning any reason though the material was technically and commercially more advantageous than AAC/ACSR. The Company also did not initiate measures to enter the market in neighbouring states by reducing its cost of production.

Thus, the decision of the Company to install production facility at a cost of Rs.62.50 lakh without any firm commitment from KSEB, being the only potential customer, resulted in locked up investment since December 2000.

PVC Covered Conductors and Bare Copper Conductors

2.1.80 Details of actual production of PVC covered and bare copper conductors for the five years ending 2003-04 were as follows: -

Year	Total capacity (in km)	Drop Wire Aerial cable	Weather proof cables	House Wire	Total production	Percentage of actual to total production capacity
		(Quantity in km)				
1999-2000	32918	46.389	64.46	38.183	149.482	0.45
2000-01	32918	314.404	Nil	329.678	644.082	1.96
2001-02	32918	Nil	Nil	647.815	647.815	1.97
2002-03	32918	Nil	Nil	423.873	423.873	1.29
2003-04	32918	3.050	Nil	325.900	328.950	1.00

Though the Division was having an annual capacity to produce 32,918 km of conductors, it produced only 0.45 to 1.97 *per cent* during the five years ending 31 March 2004 mainly due to reluctance in entering the competitive market.

Management stated (August 2004) that the market for PVC covered cables was very competitive due to presence of several small scale manufacturers enjoying tax concessions.

The Company had, however, not taken any measure to reduce the excessive cost of production with a view to compete in the market. In the absence of full-fledged production, the related activities such as production planning, documentation of machine/manpower utilisation, etc., were also not given due consideration.

Production Control

2.1.81 The Company's capacity utilisation at the power cable division and small JFTC division were on the lower side. An analysis made in Audit of the control exercised over actual production by the management revealed that it failed to systematically compile and analyse the data for taking corrective measures.

The data on machine and manpower utilisation compiled in Audit revealed that there was non-utilisation of optimum resources when peak production was required to be maintained to meet the supply schedules. Particulars of down time on account of different reasons during the year 2000-01 were as given below:

Reason	Down time (Machine Hours)	Percentage to total downtime
Absenteeism	6,399	48.55
Want of raw materials	1,300	9.86
Delay in previous process	1,565	11.87
Machine breakdown	3,561	27.02
Power failure	355	2.70
Total	13,180	100.00

It could be seen from the above that all factors, except for down time due to power failure, were controllable. Hence this was indicative of absence of management control over production.

Absenteeism was a regular feature in the Unit, for which effective control measures were not taken even when it resulted in loss of planned production hours. This was despite the fact that there was surplus manpower in the Unit during the whole period under review, as discussed in para 2.2.31 infra.

Viability of Power Cable Division

2.1.82 The table below shows details as to value of production (at realisable value ignoring penalties levied) and contribution obtained (worked out on the basis of cost data in cost audit report) in respect of conductors and cables manufactured at Irimpanam Unit during the four years ending 2002-03.

Year	Gross Production (all types of cables/conductors) in km	Gross sales realisation	Contribution (sales realisation minus cost of raw materials and power)	Employee cost	Excess (+)/ Short (-)
		(Rs. in lakh)			
1999-2000	14,290	1,531.52	249.64	247.33	(+) 2.31
2000-01	10,811	2,259.61	294.79	259.70	(+) 35.09

2001-02	7,277	758.66	185.26	258.82	(-) 73.56
2002-03	13,458	1,598.19	181.94	229.33	(-) 47.39

In this regard, the following deserve mention:

- the contribution obtained was not even sufficient to meet the employee cost during the years 2001-02 and 2002-03.
- the contribution generated out of monthly production was less than the monthly staff cost during 30 out of 48 months reviewed in Audit.
- on account of under utilisation of resources the Unit suffered losses to the extent of Rs.4.75 crore, Rs.3.18 crore, Rs.3.55 crore and Rs.1.62 crore respectively during the four years ending 2002-03.
- though the Company accepted orders even at prices equivalent to aggregate cost of raw materials and power, without any contribution towards fixed cost, it did not initiate measures to reduce the cost of its products. Company executed (2000-01) contracts with contributions as low as 0.81 *per cent*, 1.30 *per cent*, 5.68 *per cent* of sales realisation, whereas the labour cost alone was more than 12 *per cent*.

Management attributed (August 2004) the low level of contribution to lack of facilities for manufacturing wider range of cables, highly competitive market situation and locational disadvantages due to which higher transportation costs were incurred for both raw materials and finished products.

The reply is not tenable as the Management had not taken any action either to upgrade the technology or to capture market for its products through effective cost control measures and marketing techniques.

JFTC Division

Production Planning

2.1.83 Since the Company was not receiving orders for JFTC on a regular and consistent basis, the production planning activity was confined to scheduling of production as per delivery schedules given in the confirmed orders. Audit scrutiny, however, revealed that planned levels of production were rarely achieved in full and deviations from plans were quite common. This was on account of reasons such as absence of machine operators, coil/core shortage, bobbin /drum shortage, etc., as per details indicated in **Annexure 16**. The division failed to maintain a steady production and consequently there was under utilisation of resources to a huge extent especially since 2001-02. The fact that most of the causes were controllable indicated inadequacy of controls on the part of the management.

The details of variations in production level on a month-to-month basis, and capacity utilisation on annual basis for the five years ending 2003-04 are indicated in **Annexure 17**. As would be observed therefrom the production declined from 81.38 *per cent* in 2000-01 to 4.79 *per cent* in 2003-04. There was no production for eight months and four months respectively during the years 2002-03 and 2003-04 due to non-receipt of orders from BSNL.

Management stated (August 2004) that the utilisation of plant was dependent upon the product mix, as ordered for by BSNL from time to time, which differed each time and could not be predicted accurately at the time of setting up the plant. The fact, however, remained that the Company did not take any effective action to explore the market outside BSNL so as to achieve better capacity utilisation.

Inventory control

2.1.84 The Management adopted a policy of 'just-in-time' procurement of raw materials for the Company. A review of stock holding conducted in Audit revealed that the policy was not being strictly followed by the Company, as discussed in succeeding paragraph:

Accumulation of stock of raw materials/work in progress

2.1.85 The Company held an average monthly inventory of raw materials worth Rs.1.03 crore during June 2002 to January 2003 and Rs.59 lakh from July to October 2003. There was hold-up in production at JFTC Thiruvalla, from June 2002 to January 2003 and again from July to October 2003 for want of orders. Based on Company's policy of 'just-in-time' procurement of raw materials, the unit should not have carried inventory worth Rs.1.03 crore during the periods of production hold-up since the procurement was to be made against confirmed order only. This led to blocking up of funds of Rs.1.03 crore besides loss of interest of Rs.12 lakh sustained due to idle inventory during the periods of production hold up.

Management stated (August 2004) that the procurement, in the instant case was on the basis of requirements prior to re-engineering and the reduced requirements resulted out of re-engineering caused excess inventory holding.

Management's reply is not acceptable in view of the fact that though the raw material standards were revised in April 2002, the Company did not adopt the same for procurements made from June 2002 onwards, leading to accumulation of stock of raw material and consequent loss of interest.

Stock of non- saleable telephone cables

2.1.86 As per the contract with BSNL the manufactured cables delivered after a period of six months would not be accepted. The JFTC division, however, manufactured (April 1999 to March 2003) and held in stock finished cables of different sizes worth Rs.22 lakh without obtaining formal orders from BSNL. As a result the cables could not be sold since the stock period exceeded six months and the finished products became dead stock.

Management stated (August 2004) that the additional quantity was produced in anticipation of rejection of 10 to 15 *per cent* by BSNL. The reply is not tenable since the cables were being cleared after spot inspection by BSNL and hence there was no need for producing and stocking materials to make up the rejected quantity. Audit also observed that stock worth Rs.68.82 lakh was retained in production floor for want of orders.

Marketing

2.1.87 The Company has been marketing its products among traditional customers; viz. State Electricity Boards for Power Conductors/Cables and DOT/BSNL for Telephone Cables. No marketing strategy was evolved to enter into markets outside Electricity Boards/DOT/BSNL. As far as power cables are concerned, supplies to other State Electricity Boards were rendered uneconomical, due to the Company's inability to control the cost of production and offer prices matching with that of competitors. The Company, as such, depended solely on KSEB.

Audit noticed that the percentage of Company's supply with reference to total procurement of power cables by KSEB ranged between 27.67 and 76.07 during the five years ended 31 March 2004. In respect of telephone cables, the Company's supply in comparison to total procurement by DOT /BSNL was in the range of 0.38 *per cent* to 2.88 *per cent* during the four years ending 31 March 2003.

The gradual fall in market share of power cables was attributable to emergence of new suppliers and Company's incapacity to offer competitive prices. With the entry of more manufacturers in the market, the capacity far exceeded the demand, and Company could not match its prices to that of the new entrants due to excessive cost.

2.1.88 The sole dependence on KSEB for power cables and DOT/BSNL for telephone cables acted as a constraint in all the spheres of activity of the Company right from capacity utilisation to sales realisation. The supplies made by the Company were subjected to levy of penalties, belated sales realisation, lowering of prices, etc. There were no earnest efforts on the part of the Company to avoid losses by streamlining its systems, reducing costs and improving efficiency of performance, as highlighted in the succeeding paragraphs.

Power Cables

Payment of liquidated damages

Penalty paid on belated supply of conductors amounted to Rs. 35.92 lakh.

2.1.89 As per the general terms and conditions of supply of conductors to KSEB, delay in supply by the Company attracted payment of liquidated damages @ one *per cent* of value of materials per month of delay or part thereof subject to a maximum of 10 *per cent* of such value. Audit observed that out of the 15 supply orders executed during the period April 1999 to March 2004, supplies against eight supply orders attracted levy of liquidated damages amounting to Rs.35.92 lakh for belated (one to four months) supply.

The delays in delivery were mainly attributable to avoidable reasons such as want of raw materials (9.87 *per cent* of downtime recorded), absenteeism (48 *per cent*) and machine breakdown (27 *per cent*).

Management stated (August 2004) that the optimum product mix and monthly requirement of consignees as per delivery schedule in purchase orders were different and hence backlogs in supply occurred.

The reply is not tenable in view of the fact that the production required to meet the delivery schedule was always achievable, had the Company exercised proper control over the loss of production hours on account of avoidable reasons, such as shortage of raw materials, absenteeism, downtime of machines due to inadequate maintenance and repairs, etc.

Delay in preferring claims

Price variation claims

2.1.90 KSEB publishes the updated prices for power cables every month based on the raw material prices announced by the Indian Electrical and Electronics Manufacturers Association (IEEMA) and TATA Special Steels Limited (TATA SSL). The suppliers were to prefer their price variation claims on the basis of such updated prices. The Company was, however, quite irregular in preferring price variation claims for reasons not on record. The Company suffered loss of interest due to delay in preferring price variation claims, as discussed in the succeeding paragraphs.

2.1.91 As per the contract with KSEB the prices were variable and the Company was entitled to prefer price variation claims for supplies within the delivery period based on price of raw materials announced by IEEMA/TATA SSL. Accordingly, the Company preferred (till April 2004) variation claims for 6,293.263 km of power cables involving an avoidable delay of 3 to 32

months after allowing a reasonable time of two months. The delayed receipt of price variation claims aggregating Rs.1.16 crore from January to June 2003 resulted in interest loss of Rs.27.93 lakh.

2.1.92 Claims in respect of 10,987.661 km of power cables supplied (May 2000 to October 2003) within scheduled delivery period and 9,186.45 km supplied (May 1999 to March 2002) beyond scheduled delivery period were pending (April 2004). The delay in preferring claims (after allowing a reasonable time of two months) ranged between 3 and 45 months, and 23 and 55 months respectively. The interest loss suffered till March 2004 worked out to Rs.75.21 lakh.

There were delays up to 55 months in preparing price-variations claims and consequent loss of interest of Rs. 1.03 crore on blocked up funds.

Thus, the administrative delay in preferring price variation claims resulted in interest loss of Rs 1.03 crore for the period from May 1999 to March 2004 besides blocking of funds (Rs.2.86 crore).

Sales realisation claims

2.1.93 Scrutiny of claims revealed that after collection of initial 90 *per cent* payment, the Company had not effectively followed up the realisation of balance 10 *per cent* in terms of work order. In 35 instances involving Rs.44.46 lakh there was delay of more than six months to collect the amount. Further, 62 claims (Rs.78.79 lakh) relating to the period from March 2003 were pending realisation as on 31 March 2004. The interest loss sustained due to delay in realisation amounted to Rs.21.99 lakh during the five years ending 2003-04.

Management stated (August 2004) that 10 *per cent* of the value of bills was usually paid only after the power conductors supplied were consumed by consignees. The reply is not correct since the agreement specifically provided for release of 10 *per cent* payments on acceptance of material.

Telephone Cables

Lower Vendor – rating

2.1.94 The Department of Telecommunication (DOT) effected (1997-98) a major change in tender evaluation, introducing a ‘vendor rating’ system, which was based on quality (ISO certification), promptness in delivery and competitiveness of prices quoted. Company’s vendor rating ever since the introduction of the system, was below the industrial average, mainly because of the delays in delivery of cables. To compensate for the drop in delivery rating and maintain competitive vendor rating the Company had to quote prices lesser than potential market price.

2.1.95 Audit observed that the delivery rating of the Company, came down from 0.86 to 0.72 during 2000-01 when the industrial average stood at 0.82.

As per the Management's own assessment, the sales revenue that the Company had to forgo by quoting lower rates to ensure competitive vendor rating for the year was Rs. 1.50 crore.

Payment of liquidated damages

2.1.96 As per the terms of the purchase order, delayed supplies to DOT/BSNL attracted levy of liquidated damages @ $\frac{1}{2}$ per cent of value of such supplies for each week or part thereof up to 10 weeks, and thereafter @ 7 per cent of the value of delayed supplies for each week of delay for another 10 weeks. Further, delayed supplies were not eligible for price variation claims for the delayed period but the advantage of any reduction in price for basic raw material would be passed on to BSNL.

Penalty levied by DOT/BSNL for delayed supplies amounted to Rs. 4.35 crore.

The Company could not adhere to the schedule for a sizeable portion of the supplies every year. The amount of liquidated damages, price cuts and related recoveries, suffered on delayed supplies amounted to Rs.4.35 crore during the period 1999-2000 to 2002-03 as shown in the table below:

(Rs. in lakh)

Year	Gross sales (JFTC)	Penalties suffered		Other recoveries	Gross recoveries	Percentage of gross recoveries to gross sales
		Liquidated damages	Price cut			
1999-2000	7,346.05	90.14	29.76	1.80	121.70	1.66
2000-01	7,222.62	66.22	20.00	1.98	88.20	1.22
2001-02	3,193.17	46.96	78.65	3.10	128.71	4.03
2002-03	1,495.06	63.99	8.99	23.55	96.53	6.46
Total	19,256.90	267.31	137.40	30.43	435.14	2.26

Audit analysis revealed that the main contributory causes for delays in supply were shortage of plant operators, want of raw materials, wire break, etc., which were controllable to a large extent. Down time due to operator shortage alone accounted for 36.5 per cent of total down time recorded. The unit was actually having excess manpower to the extent of 29 per cent in semi-skilled and unskilled sectors, which indicates the absence of proper management control over plant operation.

Management stated (August 2004) that the deficiency in skilled sector was causing downtime. The reply is not tenable since the management failed to recruit adequate number of skilled labourers to facilitate utilisation of available capacity but followed an improper policy of recruiting semi-skilled and unskilled labour in excess of requirement thereby adding to avoidable cost of manpower.

Price cut for delayed supplies

Price cut imposed by BSNL for delayed supplies amounted to Rs. 72.17 lakh.

2.1.97 As per the contract with BSNL the delayed supplies beyond the date of release of subsequent year's orders attracted reduction in price with reference to the then existing price. Based on this provision, the Company suffered price cut aggregating Rs.72.17 lakh in respect of 41,114 CKM of cables supplied after the scheduled delivery period (October 2001 to April 2002) in respect of orders for the year 2001-02.

Delay in sales realisation from DOT/BSNL

2.1.98 The contract for supply of telephone cables to DOT/BSNL stipulated payment of 95 *per cent* of the value against proof of receipt of goods by the consignee and the balance 5 *per cent* within a period of six months or at an early date against bank guarantee.

Delay in claim settlement by DOT/BSNL resulted in interest loss of Rs.2.95 crore.

Audit, however, observed that even after allowing 15 days for documents to reach DOT/BSNL the payment against 1,410 invoices was delayed for periods ranging from 3 to 382 days from the date of delivery during the five years ending 2003-04. The interest loss sustained by the Company due to delay in realisation worked out to Rs.2.95 crore.

Manpower Analysis

Surplus Manpower

2.1.99 The Company had manpower in excess of requirement, as the recruitments were made without conducting proper work-study and the level of activities happened to be much lesser than those initially projected at the time of project implementation. The management, however, did not take adequate measures to downsize the labour/staff strength. After it was pointed out (August 2001) by the Consultants engaged for a growth plan, that there was additional manpower to the extent of 40 to 45 *per cent* at Head Office and 35 to 40 *per cent* in the Units, a Committee constituted (December 2002) by Board identified (March 2003) the surplus manpower as follows:

<u>Particulars</u>	Men in position	Actually required	Excess manpower
Head Office	55	20	35
Thiruvalla unit	376	198	178
Irimpanam unit	215	65	150
Total	646	283	363

Extra cost due to retention of surplus manpower amounted to Rs. 7.20 crore.

The overall reduction in staff cost after downsizing on the lines proposed was estimated at Rs.1.44 crore per annum. Based on this, the extra cost borne by the Company due to retention of surplus manpower for the five years ending 2003-04 amounted to Rs.7.20 crore. The Company later requested (June 2003) Government to refer the Company to Enterprises Reforms Committee for

restructuring/diversification. Further developments were awaited (September 2004).

Avoidable payment of overtime wages/production incentive

2.1.100 Despite holding surplus manpower in both the Divisions and the order position much below the capacity levels, the Management resorted to engagement of workers on overtime basis, as a matter of routine, without conducting any cost-benefit analysis.

Avoidable expenditure towards overtime and production incentive was Rs. 1.40 crore.

The overtime wages paid during the four years ended 31 March 2003 amounted to Rs. 86.65 lakh. In addition, the Company also disbursed production incentive amounting to Rs.53.43 lakh at JFTC Unit during the three years up to 2001-02. Payment of incentive was not justifiable as;

- the Company could neither avoid levy of liquidated damages by BSNL/DOT for delayed delivery nor the drop in delivery rating which were considered as a basis for approval (October 1999) of the scheme.
- there was large scale absenteeism.
- there was no extra/additional production.

Management stated (August 2004) that the incidence of liquidated damages would have been much more, had it not introduced the production incentive scheme. The reply is not acceptable as the payment of overtime wages and production incentive was not justifiable when the Company had huge surplus manpower, high level of absenteeism coupled with poor production performance.

Incidence of idle wages

2.1.101 The production activities at JFTC Division Thiruvalla came to a stand still with effect from 31 May 2002, for want of orders. The Irimpanam unit also had to stop production with effect from 23 July 2002 awaiting further orders from KSEB against tenders in process. The Company, therefore, informed (October 2002) the Government that there would be considerable savings in establishment expenses, in case a lay off was declared. Though the Government allowed (February 2003) the Company to lay off, the Board deferred the decision and decided to canvass further orders. Thereafter Thiruvalla Division had not been in operation during the period July to October 2003, for want of further orders from BSNL. The option to lay off was, however, not even considered and the idle wages paid during the period of production hold up worked out to Rs. 4.07 crore.

Idle wages paid during the period of production hold up amounted to Rs. 4.07 crore.

Management Information System (MIS)

2.1.102 The Company did not have a systematic and efficient MIS for better Corporate Governance. In the absence of proper MIS the Management could not address problem areas as discussed below:

- Delay in execution of workorders and high cost of production were the main problem areas for the Company, which adversely affected its order position, sales realisation and profitability. No regular and systematic analysis of the causes of delays were conducted by the top Management/Board.
- There was absence of a proper reporting system and remedial measures were not initiated in time.
- The directions from Board of Directors in vital areas were not always promptly complied with.

Internal Audit and Internal Control

Internal Audit

2.1.103 The Company was not having its own Internal Audit wing. The Internal Audit was being conducted by engaging a firm of Chartered Accountants. Audit observed that the findings and related recommendations by Internal Audit were not properly acted upon by the Management. Most of the system deficiencies pointed out in Internal Audit were persisting as indicated below:

- In spite of objections in Internal Audit, Internal Control system in areas of debtors control and cash management left scope for substantial improvement.
- Production standards fixed at the time of commissioning remained unchanged and improvements brought in since then were not properly incorporated in the system for better Internal Control.
- Stock levels remained to be fixed and there was absence of a fool proof system of coding and classification of inventory and proper storage and up-keep of finished goods.
- Though the Company was generating high value scrap materials like Aluminium and Copper, weighments recorded at the time of removal of scrap were often erroneous.

- There was no system in the Company for regular identification and disposal of scrap. The total value of scrap as on 31 March 2003 was Rs. 56.19 lakh and it consisted of items dating back to 1963-64.

Audit observed that the observations and recommendations by the internal auditors were not acted upon and were still pending (September 2004).

Internal Control

2.1.104 The Internal Control systems in the Company were found to be inadequate in many respects. The deficiencies observed in Internal Control systems are indicated in **Annexure 18**. The nature of irregularities were as follows:

- The Company did not exercise adequate control over consumption of materials resulting in excessive scrap generation.
- The Company failed to reconcile the input and output in respect of copper consumed. The excess consumption and unaccounted shortage noticed in Audit amounted to Rs.31.89 lakh (Sl.no. 1 of **Annexure 18**).
- The corporate governance lacked in many respects (Sl.nos. 3 &8 of **Annexure 18**).
- The procurement was often made on the basis of limited tenders which deprived the benefits of open tenders (Sl.no. 5 of **Annexure 18**).
- Different rates were paid for same materials procured during the same period at the two divisions involving additional avoidable expenditure of Rs.16.08 lakh (Sl.no. 6 of **Annexure 18**).
- Absence of internal check system led to fraudulent claims to the extent of Rs.13.58 lakh (Sl.no. 7 of **Annexure 18**).

The above matters were reported to Government in July 2004; their reply had not been received (September 2004).

Conclusion

The Company, engaged in the manufacture of power conductors since 1965 and telephone cables since 1991, depended solely on the State Electricity Board and DOT/BSNL for the sale of products. The Company faced decline in the market demand as well as sale prices of telephone cable from the year 2001-02 onwards and consequently suffered complete erosion of its net worth by the end of 2002-03. The Management did not

take adequate measures to capture market for its products through effective cost control measures and marketing techniques. No action was initiated to upgrade the technology. The Company also failed in improving its performance in the different areas of production and order execution. As a result, it had to pay heavy penalties for delayed supplies and suffered substantial losses by way of delayed sales realisation, price cuts, blocking up of funds in inventory, excess consumption of raw materials, etc. Despite surplus manpower and resultant idle wages the Company incurred huge expenditure on overtime and production incentive.

The Company needs to initiate measures for upgradation of technology in their Telephone Cable Division and introduce cost reduction measures. Excessive manpower in the Company required down sizing. The Company should widen its market base to encompass both bulk buyers as well as occasional/retail customers. Timely execution of orders and prompt collection of sale proceeds should also be given priority. The Company's corporate management systems need to be improved.