



TWELFTH KERALA LEGISLATIVE ASSEMBLY

**COMMITTEE
ON
PUBLIC UNDERTAKINGS
(2006-2008)**

FIFTY THIRD REPORT

(Presented on 17th July, 2008)

SECRETARIAT OF THE KERALA LEGISLATURE
THIRUVANANTHAPURAM
2008

TWELFTH KERALA LEGISLATIVE ASSEMBLY

**COMMITTEE
ON
PUBLIC UNDERTAKINGS
(2006-2008)**

FIFTY THIRD REPORT

On

**Kerala Minerals and Metals Limited based on the Report of the
Comptroller and Auditor General of India for the year
ended 31st March 2000 (Commercial)**

CONTENTS

	<i>Page</i>
Composition of the Committee ..	v
Introduction ..	vii
Report ..	1
Appendix I	
Summary of main conclusions/Recommendations ..	50
Appendix II	
Notes furnished by Government on the Audit Paragraphs ..	59

COMMITTEE ON PUBLIC UNDERTAKINGS (2006-2008)

Chairman :

Shri Mankode Radhakrishnan

Members :

Shri P. K. Abdu Rabb

„ A. A. Azeez

„ M. Chandran

„ C. M. Dinesh Mani

„ K. T. Jaleel

„ K. K. Jayachandran

„ P. J. Joseph

„ K. Kunhiraman

„ K. Sudhakaran

„ K. C. Venugopal.

Legislature Secretariat :

DR. N. K. Jayakumar, Secretary

Smt. P. J. Philomina, Joint Secretary

„ K. Laila Beevi, Deputy Secretary

„ L. Sailaja, Under Secretary.

INTRODUCTION

I, Chairman, Committee on Public Undertakings (2006-2008) having been authorised by the Committee to present the Report on their behalf, present this 53rd Report on Kerala Minerals and Metals Limited based on the Report of the Comptroller and Auditor General of India for the year ended 31st March 2004 (Commercial) relating to the Government of Kerala.

The Report of the Comptroller and Auditor General of India for the year ended 31-3-2004, was laid on the Table of the House on 5-7-2005. The consideration of the audit paragraphs included in this Report and examination of the departmental witness in connection thereto was made by the Committee on Public Undertakings constituted for the years 2006-2008.

This Report was considered and approved by the Committee at the meeting held on 8-7-2008.

The Committee place on record their appreciation of the assistance rendered to them by the Accountant General (Audit), Kerala, in the examination of the Audit Paragraphs included in this Report.

The Committee wish to express their thanks to the officials of the Industries Department of the Secretariat and Kerala Minerals and Metals Limited for placing before them the materials and information they wanted in connection with the examination of the subject. They also wish to thank in particular the Secretaries to Government, Industries Department and Finance Department and the officials of the Kerala Minerals and Metals Limited who appeared for evidence and assisted the Committee by placing their considered views before the Committee.

MANKODE RADHAKRISHNAN,

*Chairman,
Committee on Public Undertakings.*

Thiruvananthapuram,
17th July, 2008.

REPORT

KERALA MINERALS AND METALS LIMITED

AUDIT PARAGRAPH

Introduction

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

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.

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

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

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

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, the 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.

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

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).

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

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

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:

- * benification 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 II**

Production capacity

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.

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

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

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 – 2004.

Production Performance

Plant-wise production performance is discussed in succeeding paragraphs:

Mineral Separation Plant (MS Plant)

The Company had a mineral Separation Plant with a capacity to produce 25,000 MT of ilmenite per annum. A new Mineral Separation plant 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 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 Process ed MT	Ilmenite				Rutile				Zircon			
		content (Per cent)	Recover- able 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
1999-00	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*	

* Revenue loss since Rutile and Zircon were sold directly.

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.

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 2001-2002 (2,854 MT) and 2002-2003 (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 only 26.9 per cent against average content of 32 per cent as per the laboratory reports for the same period.

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.

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

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.1, 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

The Government had allotted (1995) land measuring 41.996 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

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

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.

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

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).

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*.

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		
	In MT				Budgeted production	Actual Installed capacity	Declared Installed capacity
1999-00	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

* From December 2000 onwards.

** From May 2001 onwards.

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

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**.

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

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 2003-2004.
- 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

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

and process problems. Plant was idle for 7,171 stream hours during 2003-2004 for want of processed input indicating imbalance in processing capacity. The stoppage on account of other reasons during 2003-2004 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*.
- 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

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

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*.

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 2002-04 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)

In the Chlorination Unit (U 200) of TDP plant, Beneficiated Ilmenite is routed through chlorine and calcined petroleum coke at 900° C -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

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 2003-2004 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

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)

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 1,050⁰ 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

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. Even though 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.

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

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)

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

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 of 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

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.

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

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 with minimum 80 per cent Ca(OH)_2 to improve the quality and reduce waste material.

On facing shortage of hydrated lime (minimum 80 per cent Ca(OH)_2), the Company started (2003 –04) using costlier caustic soda lye instead of switching back to hydrated lime of minimum 70 per cent Ca(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

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

* (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

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	1999-00 to 2003-04	0.028	4,312	3,560	752	31.76
5	Liquid Chlorine	1999-00 & 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 state 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 long. 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)

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.

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.

* Non-calcined Pulverized Fuel.

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

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.

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

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 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 $\frac{1}{8}$ 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 ie., 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.

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.

* replacement of existing components with component of greater efficiency.

Delay in installation of centrifugal Air Compressor

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.

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 2003-2004.

Management stated (April 2004) that they planned replacement of the compressors way back in 1989-90 but final decision was taken only on 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

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 requirements of 28 Tonnes of Oxygen per day after considering the actual captive production of 37 TPD.

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.

* Tonne/day

** Nano Cubic Meter-Unit of Volume flow of gas.

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.

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

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.

Product packing system

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

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. Even though 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.

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

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 tender 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

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 re-tendered 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

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 (9th September 2003) a stock out situation for bellows and the plant had to be shutdown/operated with oxygen leak till 15th 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

The Company is the sole producer of Rutile grade Titanium Dioxide Pigment (TPD) 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

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

<i>Year</i>	<i>Budgeted Sales(MT)</i>	<i>Actual Sales (MT)</i>			<i>Percentage of actual sales to Budgeted sales</i>
		<i>Domestic</i>	<i>Export</i>	<i>Total</i>	
1999-2000	27,000	23,300	84	23,384	87
2000-2001	28,392	23,449	53	23,502	83
2001-2002	30,000	24,447	1,751	26,198	87
2002-2003	31,700	19,572	7,174	26,746	84
2003-2004	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-a-vis-Export sales

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.

	<i>2000-01</i>		<i>2001-02</i>		<i>2002-03</i>	
	<i>Export</i>	<i>Domestic</i>	<i>Export</i>	<i>Domestic</i>	<i>Export</i>	<i>Domestic</i>
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)

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

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.

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

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 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 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 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

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

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.

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

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.

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

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)

<i>Particulars</i>	<i>1998-99</i>	<i>1999-2000</i>	<i>2000-01</i>	<i>2001-02</i>	<i>2002-03</i>
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	3,097.00	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 holdings.
- 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 31st 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

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

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

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 15th 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.

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

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 substitutions 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.

[(Audit paragraph 2.1—Contained in the Report of The Comptroller and Auditor General of India for the year ended 31-3-2004 (Commercial)]

Notes on the Audit paragraph furnished by Government is given in Appendix II.

1. The Committee wanted to know the reason for the drastic decline in profits of the company. The Principal Secretary, Industries Department explained that changes in import policy had affected the company's profits to a great extent. Import duty which was 130%, when the company imported Titanium, came down to 12.5%. This affected the flexibility and freedom of the company to fix prices, as the company could no longer continue in a monopoly situation and hence though the cost of mining and raw materials, fuel charges and salary component which are part of production cost showed an upward trend, the company was forced to fix low prices for its product.

2. The Committee was not convinced with the reply and enquired whether the continuous reduction in the company's profit was due to the single factor, viz, the reduction in import duty. The Committee enquired whether the company had made any effort to determine the loss due to factors such as inefficiency, mismanagement etc. The witness admitted that reduction in import duty was one of the many reasons for the downward trend in profit. When materials from foreign countries became available in the country at a lower cost, the company was also forced to lower its prices according to market

trends. To a specific question regarding the prices of raw materials in 1999-2000 and present rate, the witness replied that the price of furnace oil increased from Rs. 6000 per Kilolitre to Rs. 18,000 per KL and that of LPG from Rs. 11,000 per KL to Rs. 30,000 per Kilolitre. The expenditure on salaries and wages increased from Rs. 32 crores to Rs. 65 crores. Thus cost of production has increased from Rs. 36,000 per ton to Rs. 87,000 per ton and at the same time the price of the Titanium Pigment has come down from Rs. 1,20,000/ton to Rs. 98,000/ton. The witness further explained that being a small company, KMML could not spend a huge amount on Research and Development and at present it had only six varieties of products. Companies such as Dupont had 35 varieties of pigments and could command a higher price in the market. The company's products were always priced 5 to 10 percent below that of Dupont. The company was concentrating on paints and was trying to develop new varieties of pigments. The company was planning to adopt digital control system (DCS) in order to improve quality. The Committee enquired whether after modernisation, the installed capacity of the plant was increased from 22,000 M.T. to 36,000 M.T. per annum. The witness informed that during the previous year the company had achieved a production of 33,000 M.T. only.

3. When the Committee stated that as per the reply furnished by Govt. production in 2005 was 40,000 M.T, the MD replied that the company has so far not attained the ideal conditions necessary to achieve the full installed production capacity. The Committee mentioned that this has not been shown in the government note.

4. To a question of the Committee about the functioning of the three committees constituted for cost reduction, product development and vendor development, the witness replied that they have contributed towards vendor development.

5. The witness could not give a satisfactory reply to the Committee's questions regarding the reports of these committees and recommendations given therein. When enquired specifically about cost reduction and product development the witness stated that the company was taking steps for these. To an enquiry whether suggestions of the internal committees need approval of the Board for implementation, the witness replied that revenue items would not come before the Board for approval and that capital intensive as well as policy matters need Board approval.

6. With regard to excess payment of production-linked incentive to employees as a result of failure to declare actual available installed capacity of 36000 M.T per annum, the Principal Secretary explained that the incentive was

fixed as a long term agreement when capacity was fixed at 22000 M.T. per annum. Hence it could be changed only after convincing the employees and their leaders through discussions, which would be a long term process. The Committee was also informed that the production capacity of 36000 M.T. per annum has not yet been stabilised.

7. When enquired about the low recovery of Ilmenite, Rutile and Zircon from raw sand, the reply was that unexpected failure of machinery and teething trouble of operation of sophisticated new plant contributed to low recovery and further the percentage content of Ilmenite in raw sand had also influenced the recovery rate. The witness further stated that after modernisation, the plant was achieving 90% result. Factors such as water availability, labour problems, problems of transportation etc. were affecting production. The Committee was not convinced with the reason of machinery failure for not attaining 100% Ilmenite production capacity, that too 3 years after modernisation of the plant.

8. The Committee enquired about the measures taken by the company to safeguard the interests of local people. The witness informed that the company had taken many steps to improve the living conditions of people in the neighbourhood. The unskilled labourers recruited by the company consisted mainly of locals. The company established a dispensary and provided free treatment, implemented water supply schemes, constructed road and houses and even sea wall after Tsunami. The Committee stressed the need of the company to maintain its credibility as well as profitability. The witness informed the Committee that the R&D wing of the company has been strengthened recently with a view to develop new grades of products. The Committee was further informed that increase in cost of production was due to various factors like increased raw material cost as a result of land price hike, increased cost of labour etc., which also affected the profitability.

9. The witness stated that coal substitution and implementation of digital control system were the measures taken to improve the production capacity. To a question regarding the recruitment of employees, the witness replied that no recruitment was made during the last 5 years and 1000 persons were recruited 15 years back.

10. Regarding the query on loss due to import duty, the witness informed negatively and only the freedom for pricing is lost to the company. He further added that by enhancement in import duty the price of product could not be increased due to the low price prevailing in the market.

11. The witness enlightened the Committee that the product cost in China was very low due to the modern machinery, huge plants and improved

working conditions of labourers. In addition to that electricity and fuel charges were also very low. He further stated that they could compete with China in the market only if they were able to reduce the price to the tune of Chinese product. He also stated that by mechanisation and reduction of the employees from 2000 persons to 400 persons the cost of production could be brought down.

12. The Committee demanded an explanation on the creation of excess capacity in the Chlorination unit. The witness explained that the Company had 2 chlorinators when the capacity of the Titanium Dioxide Pigment Plant was 22000 MT per annum. But when the silica pipes in the oxidation section were changed in 1998 and the capacity of the oxidation plant was enhanced to 30,000 MT per annum, the two chlorinators available could not meet the need as each chlorinator would be down for almost one and a half months for lining. Thus capacity enhancement in the oxidation plant necessitated purchase of a third chlorinator to ensure continuous running of the plant. Even with 3 Chlorinators, on an average, only 2 worked at a time as one of them used to be in lining. Being critical equipment, monitoring and maintenance is highly essential so as to prevent any leakage of chlorine tetra chloride which is very dangerous. To reduce risk, the third Chlorinator was highly essential. It, however, increased the capacity to some extent. The witness further clarified that the effective capacity increase was from 22000 MT to 30,000 MT. Had all the three chlorinators worked together, a still higher capacity could have been achieved. But one chlorinator was always being kept as stand by to be used if one of the two chlorinators in line developed a defect. When the capacity of the oxidation plant was 22000 MT, the then available two Chlorinators were sufficient for the smooth functioning of the plant. But after capacity enhancement in the oxidation plant, one and a half chlorinators were needed for continuous functioning and one needed to be kept as stand by.

13. The Committee pointed out that the capacity of chlorinator was fixed as 70,750 MT after considering lining work and repairs. The witness stated that at a time 2 Chlorinators needed to be in line and that one had to be kept for repairs Oxidation plant and chlorination plant work simultaneously. Chlorine regenerated in the oxidation plant comes directly to the chlorinators. Hence, if the capacity of the chlorinator is insufficient, working of the oxidation plant would also have to be brought down. To the Committee's question regarding the need for spending Rs. 65 lakhs on this account, the witness explained that though the capacity increase as per AG's comment is correct, it was done to reduce the risk of leakage and to avoid stoppage in the process stream.

14. The Committee then enquired about the defect in the design of condensers in the Brine Chilling Plant. The witness replied that in 1984 when the Brine Chilling Plant was commissioned, the condenser were supplied by Kirloskar Pneumatic Company (KPC) who had purchased them from other manufacturers. When the condenser failed, since the condensers were not directly manufactured by KPC and as a part of cost reduction and vendor development, it was replaced 3 times through purchase from other sources after tendering. The first two functioned properly but the third replacement failed because of a fault in the design submitted by the Company. A cooling fin was not indicated in the design of the condenser, which was originally supplied by Kirloskar. But the first two manufacturers had included the fin in the condenser while the third manufacturer did not and hence the third replacement failed. Later KPC was contacted and they rectified the defect. When enquired about the loss of Rs. 24.77 lakhs as a result of not approaching KPC when the condenser supplied by them failed initially, the reply was that companies which supply equipments charge heavily for replacements of spares and that when these are purchased through vendor development price advantages can be enjoyed. But in the case of the condensers the company's efforts failed due to non inclusion of a fin in the design given to the supplier. The witness also replied that the company had no competence to change the design of equipments. The witness admitted that it was a fault on the part of the company, but the company had acted with the good intention of reducing costs. The Committee expressed strong dissatisfaction on loss of such a big amount of money due to the failure on the part of the Company in not contacting the original supplier. When asked about the reason for failure of the condenser purchased third time only while the two condensers bought prior to that worked well, the witness replied that the vendors selected through lowest quotation were different each time and that the first two vendors must have been aware about the need for fin while the third vendor was ignorant of this. It was also informed by the witness that the design was not insured. The Committee strongly deprecate the action of the Company in not approaching the KPC when the problems developed and wanted the responsibility for the consequent loss to be fixed.

15. The Committee enquired about the production loss due to premature failure and damage of the Critical equipment in the Oxidation Unit. The witness informed that the problems were because the company was trying to indigenously develop the equipment and spares. He further informed that being the only manufacturer of this kind; the Company could not compare and fix a standard of production. When asked whether the supplier of the equipment had not fixed any standard, the witness informed that since the

supplier used to charge exorbitantly on spares like cooling tubes, substitutes were developed indigenously with Companies like Keltek for one tenth of the original price. However due to problems in the development stage, the equipment could not get the expected life. The witness further stated that for all equipments, standard of production had been fixed based on past experience. Now equipments are replaced on completing the fixed capacity. Regarding the emergency vent gas blower turbine in the oxidation section, the witness informed that the turbine was supplied by a single supplier and it was difficult to obtain spares from them. When the defect in pressure inside the turbine was noticed, the company had already placed order for spares and it was decided to run the turbine till the spare arrived. It took sometime to obtain the spares, but the production was continued. Then a bearing was damaged and the turbine itself failed. The witness admitted that had the equipment been changed in time by stopping production, only 4 hour shut down would have been necessary but at that time the replacement was not available. Since the production was continued without changing the equipment, the failure of the turbine itself necessitated 16 hour shut down. Now spares of equipments in critical area are being stored in advance, the witness added replying to the Committee's question, the Finance Secretary stated that 'distress running' as explained by the witness, was justifiable so long, as spares are not available. But it was the company's logistic failure that had contributed to such a situation. If the company had a proper logistic linkage, it could have foreseen in time the need for spares and by placing orders on time, loss on account of stoppage of production could have been avoided. Such a logistic failure is not expected from an ISO certified company.

16. The witness stated that unlike competitors whose turnover is many times the turnover of the company, the amount that can be spent on research and development is very little. Due to this limitation, it takes time to rectify shortfalls in experimentation Failures are also part of this, the witness added. Technology is not readily available and hence the company is learning through failures. Further due to limitation in R& D expenditure, the company is yet to develop more varieties of pigments. The company has hardly 6 varieties as against competitors having 35 varieties of pigments. The company thus loses premium in the market. Introduction of DCS (Digital Control System) would ensure consistency and stability and reduce variations in future, the witness added.

17. The Committee wanted to know the reason for the production loss of 4785 MT of finished Titanium Dioxide Pigment valued at Rs. 33.09 crore. The witness informed that to improve the input-output ratio of finished TDP, some

modern equipments have been imported and that the ratio has started improving. The 1.05 MT standard fixed is being achieved now, but there is still scope for improvement. The Committee opined that had the company analyzed the reasons for the loss of production in proper time the 1:1.05 ratio could have been achieved earlier.

18. The Chairman then enquired whether there is any stipulation that dependants of employees of the company cannot take up contract in the company. The witness replied that there is such a stipulation. When asked about such a problem in the company, the witness explained that P.V. Kunjikrishnan who was contractor in the approved vendor list of MS plant was father of a casual worker. When asked how he was granted contract, being a close relative of an employee, the witness replied that the rule was not made applicable to casual employees and that he had quoted the lowest rates in open tender. The Committee strongly opposed this and commented that he was a disqualified vendor being father of an employee and ordered that the matter should be examined and that he should be immediately eliminated from the contract. The witness defended that the said contractor was the only supplier in that area and that if his contract is stopped, the company would run short of sand since it will take minimum three month's time to finalize a new tender procedure. It was added that instead of canceling the contract, the casual labourer can be terminated. The Committee strongly condemned the suggestion that safeguarded the contractor.

19. The Committee enquired about the reasons for production of off-grade Titanium Dioxide Pigment and why the company had not fixed any norms for it. The witness explained that due to modifications effected in the oxidation plant, some critical equipments had failed. At the same time some critical equipments designed by the company developed water leak which contaminated the pigment. This contamination led to generation of off-grade pigment with colour variation and the same was recovered and sold as non-conforming off-grade product. The water leakage has now been reduced to a minimum, he stated. The witness further stated that had the off-grade pigment not been recovered and sold at reduced cost, the entire off-colour pigment generated on account of the equipment standardisation would have been lost. The witness further explained that the off-grade pigment production had happened when the technology change was made and adequate steps were taken and the defects rectified and the quantity of off-grade pigment production is now minimised and a standardisation for the same has been fixed.

20. The Committee wanted to know why the Company had used the costlier caustic soda lye instead of switching back to hydrated lime of 70%

specification when lime with 80% purity became difficult to obtain. The witness informed that since the grit generated on use of hydrated lime with 70% purity for effluent treatment was too much, the company tried to switch over to hydrated lime with better purity of 80%. Since local availability of 80% pure hydrated lime was difficult, the Company had to use costlier caustic soda lye for sometime. Later the Company shifted back to the use of 70% pure hydrated lime.

21. The Committee commented that the trial made by the company to shift to 80% hydrated lime was a failure. The witness replied that the trial was done to reduce wastage on account of grit and thus improve quality. When asked about the delay in switching back to 70% hydrated lime, the witness replied that the delay was due to conversion from use of plastic bags to paper bags. It was also informed that now the company has standardised on use of 70% hydrated lime in paper bags. However, if 80% pure lime becomes available, the present system would need re-examination.

22. The Committee enquired about the excess consumption of raw materials and chemicals and the process loss in the Acid Regeneration Plant (ARP), especially the excess consumption of make-up acid. The witness informed that though parameters were fixed, due to the technological changes introduced it took time for the consumption of raw materials and chemicals to stabilise. When enquired regarding the low recovery of chlorides, the witness described that the 1:1 input-output ratio was just a theoretical value which was hardly possible to achieve. The Acid Regeneration Plant was set up for serving pollution control purpose. Chloride generated is regenerated into hydrochloric acid of 15-16 % concentration. But recovery percentage is only 85-89%. Balance requirement is bought from outside. It was also informed that the ARP was installed due to pollution control rule that the waste generated can't be disposed into the sea. Thus because of the rule, recovery was done though it is a costly affair. The ARP Plant is not a profit center and 100% recovery is impossible. The witness also stated that if acid becomes available at cheap rate, it would be profitable to buy the same and use it rather than recovering acid and using it. But regeneration of acid is essential for pollution control. When asked why the company set a non-attainable target of 100% recovery, the witness replied that it was for motivating the staff of the company to keep on trying to attain maximum recovery. The Committee commented that these reasons were not mentioned in the reply furnished. The witness stated that it was due to the decision to explain the things in detail to the Committee. The witness further stated that without any technological support from outside, the company was taking various measures to improve efficiency.

23. Regarding excess utilisation of utilities like air, water and steam the witness explained that flow meters have been installed and that their usage is being monitored now. Their installation started in 2003 and progressed stage by stage and by now usage meets the fixed standards. If the system improves further, the standards would be lowered further and refixed. The Committee was also informed that major loss occurs to steam, which still demands improvement. When the plant was installed, only total usage of utilities could be known. But now consumption of each item by each plant can be known individually, thereby making control of usage easier. The witness further stated that the consumption of steam in tunnel drier needs further improvement and in total the usage of all the three utilities is being controlled now.

24. The Committee enquired about the wrong selection of stainless steel plates required for the conveyor in the tunnel drier. The witness stated that the order for steel plates for conveyor was placed with the original foreign supplier, reproducing the part number and drawing given by them. The variation in size was because of fault in design supplied by the supplier. When enquired about the defect in the selection process adopted by the company, the Principal Secretary explained that most critical equipments have only one or two suppliers. Even when an equipment has only one supplier, normally public sector undertakings get the specification of the equipment from the supplier, reproduce it as the company's specification requirement and invite offer from them. In this case the supplier made a mistake in the specification supplied, resulting in order for wrong sized plates for conveyor. The supplier, admitting this mistake, later replaced them free of cost. The Committee wanted to know why the supplier was not asked to meet the loss on account of the faulty design. The Principal Secretary, Industries Department replied that it was technically and legally impossible. To the question of the Committee as to why the company couldn't find out the mistake in design, the witness replied that the mistake was found out when they started fitting the plates. The Committee was not satisfied with the replies. The Additional Secretary, Finance Department pointed out that being operational managers and not manufacturing managers the managerial staff of the company are not competent to detect defect in design. He also pointed out that though the selection process was faulty; the company could not be blamed for it. The Committee pointed out that as per records with the AG, the offer was not referred to or quoted in the supply order and that the wrong specifications hence seem to be shown by the company itself. The witness replied that the American company replaced the spares free of cost, because they admitted that the mistake was on their part. The Committee was not convinced with the justifications and commented that the company showed sheer irresponsibility in this regard. The Principal Secretary stated that constraints like the teething stage

of R& D wing, lack of technological support, lack of training sessions etc led to such mistakes. The Committee opined that the reasons attributed by the witness were not satisfactory and that specifications given by the company in the original order itself was wrong. The Committee further commented that the profits of the Company has decreased from Rs.100 crores to Rs.8 crores and that the fall in profits show a dangerous future for the company

25. The Committee enquired why the Management took over 4 years to decide to purchase a Centrifugal Air Compressor which would help the company to save Rs. 1.34 crore per annum by way of power consumption, maintenance cost and holding of inventory of spares. The witness replied that when the two reciprocating air compressors were found to be less efficient but consuming more energy, decision was taken to go for energy saving compressors. But actual installation of the same took some time. The delay was procedural and such a delay is normal in the purchase of equipment worth nearly Rs. 2 crore. The witness continued that the fact that the equipment was for cost saving only also contributed to the delay. Had the replacement been for an equipment that affected production, the procedure would have been speedier. In this case, it took time to convince the decision makers that the replacement would help to improve efficiency. When the Committee asked about the time taken normally, the witness explained that it takes 9 months to 1 year. First the management should accept the proposal. Then the working of similar projects in other factories has to be evaluated. The Committee commented that the inordinate delay of four years in decision making, approval and installation in this case was not prudent and the same could have been avoided.

26. The Committee enquired about the reason for the delay in setting up the oxygen plant. The witness replied that setting up of oxygen plant is a major policy decision that has to be taken by Government and it has not yet been finalised. It still remains to be decided whether to set up 125 TPD oxygen plant at the company's expense or to install a 200 TPD plant on Build own Operate (BOO) basis. In the latter option, the company need not make initial investment and at the same time due to higher capacity, cost will be less. However the decision is still pending with the Government and decision has to be taken at the Cabinet level. When asked about the present situation, the witness explained that at present the company has a small oxygen plant producing some quantity and the balance quantity required is being bought from Bangalore, Pondicherry etc.

27. When asked about delay in installing the product packing system, the witness admitted that delay had occurred in the installation and stabilization of the packing system. The Committee condemned the lack of planning in procurement and installation of the packing system.

28. The Committee asked the reason for shut down of the plant for 99 hours which resulted in the production loss of 200 MT valued at Rs. 1.09 crore. The witness explained as follows. The then existed blower that handled chlorine at high temperature and pressure had a few problems. Moreover its initial cost was 1.2 crores. In 1998 a company named TLT in Ahamedabad, with German Collaboration, started manufacture of a new blower. After a series of discussions with the company, a blower developed by the Company, which was very cheap and at the same time consuming less power was tried in one of the two streams. Later, improvements were effected in the second stream too and it was decided to replace the fountain blower with TLT blower in May, 2003 While placing order for the same, a leak developed in the second stream demanding some modification which was completed in December, 2003. Because of this delay, the fountain blower in the second stream couldn't be replaced by TLT blower during shutdown in May, 2003. In the meantime, the other blower faced problem due to increased vibration, necessitating shutdown of blowers in both streams. This inturn resulted in stoppage of work for three hours. However, after this, TLT blowers are being used without any problems, the witness added. The Committee commented that it couldn't regard this kind of lapses to be casual. The Committee expressed dissatisfaction on replies like "couldn't do then" and 'now everything is ready'. The Committee also opined that having the authority to decide on replacements, it was a serious lapse on the part of the company that replacements are not properly planned and done during shutdowns. The Committee pointed out that though the offer had been received on October 2002 the Company had placed the order only in January, 2003. The witness replied that the delay was due to design modifications for substituting the then existed blower worth Rs,1.25 crores with one worth Rs. 25 lakhs. Technical changes normally warrant such delay. The Committee was also informed that only after the modified blower in first stream got stabilized, the one in the second stream was replaced.

29. The Committee commented that the justification by witness that budgets of production are always over estimation and hence can't be achieved, is not worth acceptance. The Committee asked how the performance could be evaluated if budgets were prepared based on non-realistic figures. The Committee also opined that faults that have been committed by the company should be admitted before the Committee and that contradictions in reply furnished and reply on examination should not occur. The witness admitted that there was some delay and explained that until the new blower in the first stream got technologically successful and stable replacement of blower in the second stream was not safe due to risk factors. The delay was on account of this reason.

30. The Committee enquired why the Company failed to negotiate or retender as per laid down purchase policy before procuring 5068 MT of petroleum coke at an abnormally high rate. The witness replied that negotiation was done before awarding tender. The Committee pointed out that the reply furnished by Government clearly stated that there was little scope for negotiation. The witness replied that on checking files again, it was found that negotiation was carried out on 26-5-2006. The Committee viewed this seriously and commented that this fact should have been found out from files while furnishing reply to the Committee. The Committee also wanted to know how the reply was furnished without proper examination of records. The Committee expressed its concern and dissatisfaction over the hiding of facts before the Committee. When the Committee enquired whether Reliance was the only source for petroleum coke, the witness replied in the affirmative. The witness further informed that the Company shifted from Lignite to Petroleum coke due to the non availability of Lignite supplied by Neyveli Lignite Corporation. M/s. Reliance enjoying the monopoly over the supply of petroleum coke gradually doubled and thrbled the price of Petroleum coke. Due to this exorbitant price, the Company is trying for a modification of the system for using a cheaper substitute in the place of petroleum coke.

31. The Committee wanted to know why the company had not taken any measure to procure the expansion bellows after floating the purchase enquiry in January, 2003 resulting in a stock out situation for bellows on 9th September, 2003 leading to shutdown and consequent loss of production worth Rs. 46.57 lakh. The witness replied that non-response of the manufacturer to the purchase enquiry was not noticed. The Committee enquired about the personnel in charge of watching this and initiating action. But the witness evaded the question and blamed system failure of the computer for not signalling the lack of response of the supplier. He added that suitable modification in the system had been made so that such instances do not recur.

32. When the Committee enquired why realistic budgets are not made, the Managing Director replied that the board fixes the higher budget to pressurize the Company to achieve better performance. The witness further added that by bringing about modifications, record production has resulted and that if this trend is continued, the budgeted figure can be achieved during the current year.

33. When the Committee questioned about ways to improve domestic sale, development of new varieties of product to compete with competitors was pointed out as one way. It was added that efforts are being made to improve the activities of R&D Wing to develop new varieties. The witness further

pointed out that since there was no anti-dumping duty then, other countries started making available the product at much lesser price than that of the company. Thus low cost paint producers started buying the cheaper products.

34. To a question of the Committee on special discount allowed to Asian Paints the witness answered that Asian Paints was a special and major customer buying almost 30% of production of Kerala Minerals and Metals Ltd. and that the Board had taken a decision to give them special discount in order not to dissatisfy the long term customer.

35. The Committee enquired why the company had not availed the concessional duty as permitted in the new Export Promotion Capital Goods Scheme. The witness informed the Committee that the Company started availing the concessional duty as per the Export Promotion Capital Goods Scheme from 2000-01 itself. In 2003-04, the Company had availed concession of Rs. 2.68 crores. However the Scheme could not be availed for the entire imports as for availing the scheme a stipulated quantum of export is obligatory ie. the export quantum should increase each year. The witness also stated that this becomes practically impossible. If the stipulated export is not met, the duty saved together with penalty has to be repaid. The incremental growth of export alone is taken into account to offer benefit under the scheme. The Committee strongly opposed the practice of the company is not disclosing the entire facts regarding audit objections while given chance to and then later bringing justification when the audit paragraph is examined. The Committee strongly opined that justifications and explanations should be given to Accountant General, in writing and the same should not contradict with replies given while examining the audit paragraphs.

36. When enquired on the reason for not getting SION (Standard Input-output Norm of Production) fixed by DGFT (Director General of Foreign Trade) the witness stated that application with regard to this was made in 2003. It was initially rejected. When reapplied 1% Duty Entitlement Pass Book was allowed which is still being used. However a review petition has been made to increase the percentage. Though up to 10% can be allowed normally a maximum of 3 or 4% percentage is allowed. The SION is fixed based on value of imported content in the export product. Since this percentage was in the range of 1%, the application was rejected initially. Another application was submitted projecting 17% imported component on the basis that if price advantage is available even items bought indigenously will be imported. Thus SION was approved at 10%. But when application was submitted for DEPB benefit, separate application for titanium dioxide was demanded. When applied again, it was kept in abeyance as there were plans to drop the scheme. When the

scheme was again started in the last Budget, application has again been made. The witness also added that the application was being processed and that the company had got Rs. 4.42 crore under the target plus scheme.

37. When enquired regarding delay in implementation of suggestions made by CPRI after energy audit, the witness informed that the same could be done only step by step and that all possible replacements have been carried out one by one. Some were done before and some after the audit by the Comptroller and Auditor General.

38. The Committee enquired why no steps were taken to change over from furnace oil to coal even though the Central Power Research Institute had pointed out in June 2002, that the change over would entail annual cost saving of Rs. 8.75 crore. The witness replied that feasibility of the recommendation from CPRI to switch back to usage of coal was studied by the original manufacturer who has recommended that it would be economical to replace the existing boiler with a new boiler with fluidized bed system than to convert the existing boiler for coal usage. However it needs approval from the Board and Government before implementation as it forms a major decision. The Principal Secretary added that before deciding on this, availability of coal, transportation problems etc. have also to be studied. He also added that if fuel like LNG would become cheaply available by 2009 then a switch over to that would become necessary. The Committee expressed its strong dissatisfaction over the delay in getting done a recommendation made in June 2002, that too by a highly reputable institution, the Central Power Research Institute whose study would definitely have gone into all aspects of the conversion. The Committee also observed that the matter has not come before the Board even by the end of 2006, ie. even after 4 years. The Committee did not accept the explanation given by the witness to the audit objection.

39. The witness explained that normally raw materials are stored for a maximum of 6 days. Raw materials from other States are stored for 20-25 days. Loco engines and earthmoving items kept as spares have been sold as scrap by auction. A few other non-moving spares were not disposed because of very low price quoted. The witness further stated that it is being examined if the remaining spares can be used after modification. Efforts are being made to reduce dead stock and make more effective the inventory control system. When the Committee enquired about the non-usable spares, the witness clarified that such spares included even spares left on account of replacement of fountain blower with T.L.T. blower and that a number of such non-moving spares is being reduced by modifying and utilising them when a need arises.

40. When enquired about the prevailing system of internal audit the witness stated that management audit exists and that all proposals are reviewed by internal audit. The witness added that the system of internal audit is continuous with quarterly reporting and that the Board examines the reports of internal audit.

41. Failure to estimate profits accurately was pointed out by witness as reason for under and over payment of tax and consequent penalty and loss of interest. The witness added that though computerisation of Finance Department has been done, only the introduction of ERP System which is on the way can solve the problem fully.

42. The Committee then enquired about the general issue of medical re-imbursement. The witness explained that upto an amount of Rs. 50,000 there is insurance and beyond this the company pays after scrutiny of bills. But in one case of medical reimbursement Rs. 6.3 lakhs was paid on the day of submission with an unusual hurry. The officials involved in the case are still under suspension, he added. The witness also informed that the Government had agreed to introduce a fool proof scheme for medical reimbursement in a manner beneficial to all.

Conclusions/Recommendations

43. **The Committee finds that the Company had constituted three Committees for the purpose of Cost reduction, Product development and Vendor development. The Committee is much displeased to note that these Committees have so far not suggested any recommendations or measures. The Committee recommends that these three committees should meet regularly to chart out measures to increase the efficiency of the Company. The Committee desires to be informed of the number of meetings held by the three internal committees during the last 3 years, their recommendations and the steps taken by the company for cost reduction, product development and vendor development.**

44. **The Committee finds that the Company had disbursed loans to some other public sector undertakings without specifying rate of interest or repayment terms and to Kerala State Cashew Development Corporation Limited without the prior approval of Government, and the chance of repayment of loans/payment of interest by the above PSU were remote. The Committee therefore recommends that loans to PSU, should be disbursed only with the prior sanction of Government and specifying terms of repayment and rates of interest. The Committee also desires to know the progress un recovery of the loans disbursed to various PSUs.**

45. The Committee is perturbed to learn that the Company had not paid dividend for the four years from 1998-1999 to 2001-2002 even though it was working on profit. The Committee wish to know the reasons for not declaring a dividend even if there is sufficient profit and the Committee further recommend that the Company should declare the dividend as soon as possible. The Committee finds that though KMML is the sole producer of Rutile Grade, Titanium Dioxide Pigment in India and six different Grades of TDP are being manufactured by the Company, the performance of the Company up to the year 1992-1993 resulted in accumulated loss of Rs. 107.99 crore due to low level of capacity utilization, high cost production, low productivity and insufficient marketing strategy. The Committee recommends that concrete steps should be taken to improve this and effective marketing strategy should be followed to market the products.

46. The Committee learns that as a result of the failure of the company to declare the actual available installed capacity as 36,000 MT per annum, there is excess in payment of production linked incentive to employees. The Committee finds that the incentive was fixed as a long term agreement when capacity was fixed at 22000 MT per annum and the company has not taken any measure to revise the incentive in tune with the present capacity. The Committee therefore recommends that steps should be taken to declare the actual available installed capacity and renew the agreement regarding production linked incentives.

47. The Committee expresses its displeasure over the company's reply of machinery failure for not attaining 100% Ilmenite production capacity, that too 3 years after modernisation of the plant and desires to be informed of the Company's achievement during 2004-2005, 2005-2006 and 2006-2007.

48. The Committee finds that as a result of globalization, the Company is facing stiff competition from other countries especially China as their products are cheaper. The Committee recommends that the Company should reduce the cost of production and improve the production capacity by coal substitution and implementation of Digital Control System. The Committee also finds that at present it has only six varieties of products. The Committee recommends that the Company must strengthen its Research and Development wing, so as to develop new varieties in keeping with present market trends. The Committee desires to be informed of the steps taken in this regard.

49. The Committee finds that the Company's effort for cost reduction and vendor development when a condenser in the Brine Chilling Plant is faulty resulted not only in loss of Rs. 24.77 lakh for replacement through various suppliers without contacting the original supplier, Kirloskar Pneumatic

Company Limited (KPC), Chennai, but also production loss valued at Rs. 2.46 crore. The Committee expressed strong dissatisfaction at the loss of such a huge amount of money due to the failure on the part of the Company in contacting the original supplier. The Committee strongly criticizes the action of the Company in trying for vendor development without considering production loss. Vendor development and the subsequent cost reduction is good, but this should be done when the machinery is in working condition. The spares should be purchased before hand and kept ready to be used when faults develop. Trying for vendor development after machinery have become faulty will lead to huge production loss. The Committee therefore recommends that responsibility for the loss be fixed, and steps should be taken to prevent such occurrences in future. The Committee desires to be informed of the action taken in this regard.

50. The Committee learns that eventhough the plant was modified with increased capacity, the shutdown due to critical equipment failure and process problems could not be controlled by the company and this adversely affected overall production efficiency of this plant. The Company could have avoided such failure by proper and periodical maintenance. The Committee expresses displeasure over the lethargic attitude of the maintenance personnel of the Company who should have proper presumption to see that necessary spares were available. The Committee recommends predictive maintenance to avoid shutdowns in future. The Committee desires to know whether the Oxidation Unit has been shut down since March 2004.

51. The Committee concludes that lack of proper maintenance was leading to production of large quantities of off grade Titanium Dioxide Pigment, resulting in loss of crores of rupees. The Committee recommends that norms should be fixed for off-grade production and it should be strictly ensured. The Committee wishes to know the quantity of off grade Titanium Dioxide Pigment produced by the Company during the years 2004-05 and 2006-07.

52. The Committee understands that major reason attributed for off grade production was deviation from colour specification fixed for the production and that colour changes during the process were caused mainly on account of leakage of water in certain critical equipments.

53. The Committee learns that there is excess consumption of raw materials and chemicals, especially of make-up acid. The Committee also noticed that pond water was not being utilized for process operations in Ilmenite Beneficiation Plant (IBP) and Acid Regeneration Plant (ARP) as envisaged in the chloride recovery project. This resulted in heavy loss of

chlorides and led to excess consumption of make-up acid. The Committee is not satisfied with the reason stated by the company and therefore recommends that the exact reasons for excess consumption should be identified and steps be taken to avoid this. The Committee desires to be informed of the steps taken and also of the consumption of make-up acid and liquid chlorine from 2004-2005 to 2006-2007.

54. The Committee finds that the Company had not fixed any standard for consumption of utility items like air, water and steam required for the operation of the TDP plants and further added that flow meters were also not installed to assess the exact quantity of air consumed by each production centre. The Committee also informed that major loss occurs to steam, which still demands improvement. The Committee therefore recommends that the flow meters for steam and water should be installed. Regarding the consumption of utilities, the Committee recommends that norms should be fixed for their consumption in order to avoid loss due to excess consumption.

55. The Committee is shocked to find that selection of stainless steel plates required for the conveyor in the tunnel drier was wrong and the company couldn't find out the mistake in design and the mistake was found only when they started fitting the plates. The Committee is not at all convinced by the arguments of the witness that the supplier was not to meet the loss on account of the faulty design because it was technically and legally impossible. The Committee expresses displeasure over the lethargic attitude of the Company in this matter. The Committee therefore recommends that duties and responsibilities of all supervisory staff should be fixed and strict action taken to recover loss to the Company in case of dereliction of duty.

56. The Committee expresses anger over the fact that the management took over 4 years to decide to purchase a Centrifugal Air Compressor costing Rs. 1.63 crore which would help the company to save Rs. 1.34 crore per annum by way of power consumption, maintenance cost and holding of inventory of spares, even though the company itself had huge surplus funds. At a time when technology is advancing at great speed, such delay is imprudent and disastrous to the company. The Committee recommends that such instances should be avoided in future and proper evaluation of the necessity and utility of new machinery should be undertaken. The Committee wishes to be informed of the functioning of the new compressor and of the savings obtained during the last 3 years. The Committee is displeased over the Company's unpardonable lethargic attitude and delay in installing new compressor and recommends that in future such delay in decision making, approval and installation should be avoided.

57. The Committee finds that there was inordinate delay in the installation of product packaging system and that the system was installed after shut down of the plant for 555 hours which resulted in avoidable production loss of 1,338 MT valued at Rs. 7.32 crore. The Committee feels that the incident depicts the lack of planning in procurement and installation of the packaging system. The Company should have planned to procure and install the packaging system as well as the Recycled Gas Blower during the annual shut down to avoid production loss.

58. The Committee is astonished to find that the company floated a purchase enquiry to import the expansion bellows only when the reorder level was reached and no further steps were taken for procurement. This caused a stock out situation for bellows resulting in loss of production of 82 MT of raw pigment valued at Rs. 46.57 lakh. The Committee expresses displeasure over the Company's act of blaming system failure of the computer, for not signalling the lack of response of the supplier instead of the personnel in charge. The Committee also expresses strong displeasure over the management's stand that responsibility for the lapse could not be fixed as this was not intentional. The Committee recommends that responsibility for this lapse should be fixed and action taken intimated to the Committee.

59. The Committee learns that 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", but quality-wise its products rank only third in the Indian market due to low quality, weight variations, non-development of new grades etc. The Committee therefore recommends that steps should be taken to improve efficiency, to develop new grades of pigment and to increase domestic sales in order to get higher profit margins. The Committee wishes to be informed of the steps taken and of volume of domestic sales during the years 2003-2004 to 2006-2007. The Committee may also be informed of the benefits from research and development in the R&D wing of the company.

60. The Committee understands that the Company had not availed of any benefit under DEPB (Duty Entitlement Pass Book) scheme during 2001-2004 as SION (standard input – output norm) for Rutile grade Titanium Dioxide Pigment had not been got fixed by the Director General of Foreign Trade. The company's failure to avail of the benefit of the scheme during the period 2001-2004 resulted in a loss of entitlement to the extent of Rs. 11.98 crore. The Committee recommends that responsibility be fixed for the lapse and action taken to prevent recurrence in future. The Committee may be informed of the benefits obtained under the scheme since 2003-2004.

61. The Committee expresses displeasure over the company's delay in implementing the major cost saving schemes, recommended by the Central Power Research Institute (CPRI), after energy audit which would result in overall cost saving of Rs. 1.07 crore per annum in the Electrical Section and Rs. 10.30 crore in the mechanical portion against a total capital investment of Rs. 3.34 crore. The Committee therefore recommends that the Company should implement the schemes without any further delay.

62. The Committee finds total irresponsibility and malafide intentions on the company's part in not making the change over from furnace oil to coal even though the Central Power Research Institute had recommended it as it would help the company to save Rs. 8.75 crore per annum. The Directors Report on the account of 2001-2002 had also envisaged a saving of Rs. 9 crore by substituting furnace oil with coal. The Committee finds that the estimated capital cost for the 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. By this laxity the company has caused loss of more than Rs. 40 crore on this count alone. The company had not placed the matter before the Board even in December 2006 and Government sanction had not been sought. The Committee feels that there was no need to engage the Engineering consultant MECON to study what has already been studied by the CPRI, and that the delay is unjustified as well as purposeful. The Committee recommends that responsibility be fixed and action taken for the lapse. The Committee desires to be informed of the present stage of switch-over, of the firms from which furnace oil is purchased and of the amounts spent on the purchase of furnace oil during the years 2004-2005, 2005-2006 and 2006-2007.

63. The Committee finds that the inventory control and internal audit systems in the company need to be strengthened and recommends that action be taken for the same. The Committee also suggests that steps should be taken to make the finance wing of the company more efficient.

Thiruvananthapuram,
17-7-2008.

MANKODE RADHAKRISHNAN,
Chairman,
Committee on Public Undertakings.

Annexures of the Audit Report**ANNEXURE 9***(Referred to in paragraph 2.1.6)***Statement showing financial position of The Kerala Minerals and Metals Limited as on 31 March of the five years up to 2002-03***(Rupees in crore)*

<i>Particulars</i>	<i>1998-99</i>	<i>1999-2000</i>	<i>2000-01</i>	<i>2001-02</i>	<i>2002-03</i>
Liabilities					
(a) Paid up capital	30.93	30.93	30.93	30.93	30.93
(b) Reserves & Surplus	83.28	155.29	231.89	296.16	348.83
(c) Borrowings	1.00	..	..	..	3.98
(d) Trade dues and current liabilities (including provisions)	58.03	77.24	139.18	128.78	164.83
(e) Deferred Tax liability	..	..	..	..	2.67
Total	173.24	263.46	402.00	455.87	551.24
Assets					
(a) Gross Block	111.57	113.78	116.31	117.65	131.98
(b) Less depreciation	95.13	96.92	98.99	101.24	104.58
(c) Net fixed assests	16.44	16.86	17.32	16.41	27.40
(d) Capital work in progress	1.78	1.92	9.55	15.13	12.72
(e) Investments	..	..	..	..	..
(f) Current assets, loans & advances	154.58	244.20	374.85	424.05	510.84
(g) Miscellaneous Expenditure	0.44	0.48	0.28	0.28	0.28
Total	173.24	263.46	402.00	455.87	551.24
Capital employed #	114.77	185.74	262.54	326.81	386.13
Net worth @	113.77	185.74	262.54	326.81	379.48

Capital employed represents net fixed assets (including capital work in progress) plus working capital.

@ Net worth represents paid up capital plus free reserves less intangible assets.

ANNEXURE 10
(Referred to in paragraph 2.1.6)

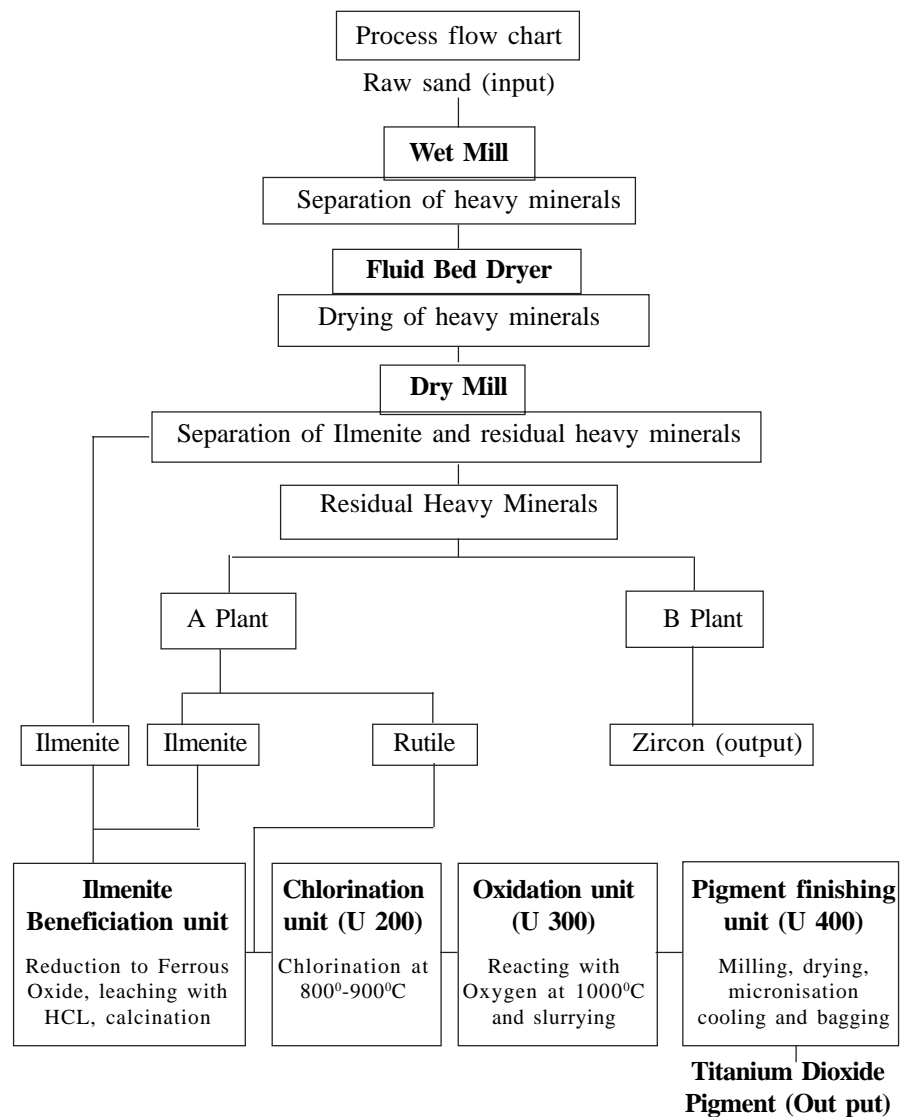
**Statement showing working results of The Kerala Minerals and Metals
Limited for the five years up to 2002-03**

(Rupees in crore)

<i>Particulars</i>	<i>1998-99</i>	<i>1999-2000</i>	<i>2000-01</i>	<i>2001-02</i>	<i>2002-03</i>
Income					
Sales	218.32	251.71	276.57	260.44	261.44
Other income	3.80	9.83	16.66	22.04	22.25
Stock					
(+) Accretion	(-) 14.88	(-) 3.33	(+) 16.84	(-) 6.34	(+) 6.16
(-) Decretion					
Total	207.24	258.21	310.07	276.14	289.85
Expenditure					
Manufacturing expenses	87.89	104.06	137.71	125.60	145.18
Employee cost	30.61	38.36	36.72	41.25	42.11
Selling, administration & other expenses	2.44	2.09	4.49	4.33	5.06
Interest and financial charges	0.50	0.42	0.49	2.20	0.58
Depreciation	1.44	1.79	2.07	2.25	3.34
Profit before tax	84.36	111.49	128.59	100.50	93.58
Percentage of sales	38.64	44.29	46.49	38.59	35.79

ANNEXURE 11

(Referred to in paragraphs 2.1.10 and 2.1.24)

Chart showing production process in The Kerala Minerals and Metals Limited

ANNEXURE 12

(Referred to in paragraph 2.1.26)

Statement showing Process-wise efficiency in TDP plant of The Kerala Minerals and Metals Limited for the three years up to 2003-04

<i>Particulars</i>	<i>IBP Unit Raw Ilmenite to Beneficiated Ilmenite</i>	<i>Chlorination Unit (U-200) Beneficiated Ilmenite to Titanium Tetrachloride</i>	<i>Oxidation Unit (U-300) Titanium Tetra Chloride to raw Pigment</i>	<i>Pigment finishing Unit (U-400) Raw Pigment to finished Pigment</i>
Declared installed capacity (MT)	90000	212250	63000	66000
Actual installed capacity (MT)	108000	318420	108000	108000
Operating hours available	21600	58950	39300	19650
Production capacity per hour (MT)	5.00	5.40	2.75	5.50
Actual production (MT)	94992	192523	78609	79215
Hours required for actual production	18999	35652	28585	14403
Hours actually utilised	19115	39158	39021	23946
Excess hours utilised	116	3506	10436	9543
Production loss (MT)	580	19932	28699	52487
Cost of production per MT (Rs.)	19776	16126	54692	68320
Value of loss (Rs. in crore)	1.15	32.14	156.96	358.59

ANNEXURE 13
(Referred to in paragraph 2.1.43)

Statement showing the details of excess consumption of utilities in The Kerala Minerals and Metals Limited for the two years ended 2002-03

Year	Actual production of TDP (MT)	Actual consumption (in lakh MT)			Consumption per MT of TDP (MT)			Cost of production (Rs. in lakh)			Excess consumption* based on consumption for 2000-01 (lakh MT)			Extra expenditure** (Rs. in lakh)		
		Air	Water	Steam	Air	Water	Steam	Air	Water	Steam	Air	Water	Steam	Air	Water	Steam
2000-01	25426	481.2	20.03	2.00	1893	78.77	7.89	..	..	..	..	..	..	..	..	..
2001-02	25612	499.93	23.53	2.04	1952	91.89	7.95	246.16	218.27	1753.86	15.11	3.36	0.02	7.44	31.16	17.19
2002-03	28136	616.96	27.38	2.40	2193	97.32	8.52	280.27	247.30	2407.03	84.41	5.22	0.18	38.34	47.15	180.53

* Excess consumption per MT multiplied by Actual production for the year

** Cost of production/Total consumption X Excess consumption

APPENDIX I

SUMMARY OF MAIN CONCLUSIONS/RECOMMENDATIONS

<i>Sl. No.</i>	<i>Para No.</i>	<i>Department Concerned</i>	<i>Conclusions/Recommendations</i>
(1)	(2)	(3)	(4)
1	43	Industries	The Committee finds that the Company had constituted three Committees for the purpose of Cost reduction, Product development and Vendor development. The Committee is much displeased to note that these Committees have so far not suggested any recommendations or measures. The Committee recommends that these three committees should meet regularly to chart out measures to increase the efficiency of the Company. The Committee desires to be informed of the number of meetings held by the three internal committees during the last 3 years, their recommendations and the steps taken by the company for cost reduction, product development and vendor development.
2	44	„	The Committee finds that the Company had disbursed loans to some other public sector undertakings without specifying rate of interest or repayment terms and to Kerala State Cashew Development Corporation Limited without the prior approval of Government, and the chance of repayment of loans/payment of interest by the above PSU were remote. The Committee therefore recommends that loans to PSU, should be disbursed only with the prior sanction of Government and specifying terms of repayment and rates of interest. The Committee also desires to know the progress in recovery of the loans disbursed to various PSUs.
3	45	„	The Committee is perturbed to learn that the Company had not paid dividend for the four years from 1998-1999 to 2001-2002 even though it was working on profit. The Committee wish to know the reasons for not declaring a dividend even if there is

(1)	(2)	(3)	(4)
			<p>sufficient profit and the Committee further recommend that the Company should declare the dividend as soon as possible. The Committee finds that though KMML is the sole producer of Rutile Grade, Titanium Dioxide Pigment in India and six different Grades of TDP are being manufactured by the Company, the performance of the Company up to the year 1992-1993 resulted in accumulated loss of Rs. 107.99 crore due to low level of capacity utilization, high cost production, low productivity and insufficient marketing strategy. The Committee recommends that concrete steps should be taken to improve this and effective marketing strategy should be followed to market the products.</p>
4	46	Industries	<p>The Committee learns that as a result of the failure of the company to declare the actual available installed capacity as 36,000 MT per annum, there is excess in payment of production linked incentive to employees. The Committee finds that the incentive was fixed as a long term agreement when capacity was fixed at 22000 MT per annum and the company has not taken any measure to revise the incentive in tune with the present capacity. The Committee therefore recommends that steps should be taken to declare the actual available installed capacity and renew the agreement regarding production linked incentives.</p>
5	47	„	<p>The Committee expresses its displeasure over the company's reply of machinery failure for not attaining 100% Ilmenite production capacity, that too 3 years after modernisation of the plant and desires to be informed of the Company's achievement during 2004-2005, 2005-2006 and 2006-2007.</p>
6	48	„	<p>The Committee finds that as a result of globalization, the Company is facing stiff competition from other countries especially China as their products are cheaper. The Committee</p>

(1)	(2)	(3)	(4)
			<p>recommends that the Company should reduce the cost of production and improve the production capacity by coal substitution and implementation of Digital Control System. The Committee also finds that at present it has only six varieties of products. The Committee recommends that the Company must strengthen its Research and Development wing, so as to develop new varieties in keeping with present market trends. The Committee desires to be informed of the steps taken in this regard.</p>
7	49	Industries	<p>The Committee finds that the Company's effort for cost reduction and vendor development when a condenser in the Brine Chilling Plant is faulty resulted not only in loss of Rs. 24.77 lakh for replacement through various suppliers without contacting the original supplier, Kirloskar Pneumatic Company Limited (KPC), Chennai, but also production loss valued at Rs. 2.46 crore. The Committee expressed strong dissatisfaction at the loss of such a huge amount of money due to the failure on the part of the Company in contacting the original supplier. The Committee strongly criticizes the action of the Company in trying for vendor development without considering production loss. Vendor development and the subsequent cost reduction is good, but this should be done when the machinery is in working condition. The spares should be purchased before hand and kept ready to be used when faults develop. Trying for vendor development after machinery have become faulty will lead to huge production loss. The Committee therefore recommends that responsibility for the loss be fixed, and steps should be taken to prevent such occurrences in future. The Committee desires to be informed of the action taken in this regard.</p>
8	50	„	<p>The Committee learns that eventhough the plant was modified with increased capacity, the shutdown</p>

(1)	(2)	(3)	(4)
			<p>due to critical equipment failure and process problems could not be controlled by the company and this adversely affected overall production efficiency of this plant. The Company could have avoided such failure by proper and periodical maintenance. The Committee expresses displeasure over the lethargic attitude of the maintenance personnel of the Company who should have proper presumption to see that necessary spares were available. The Committee recommends predictive maintenance to avoid shutdowns in future. The Committee desires to know whether the Oxidation Unit has been shut down since March 2004.</p>
9	51	Industries	<p>The Committee concludes that lack of proper maintenance was leading to production of large quantities of off-grade Titanium Dioxide Pigment, resulting in loss of crores of rupees. The Committee recommends that norms should be fixed for off-grade production and it should be strictly ensured. The Committee wishes to know the quantity of off-grade Titanium Dioxide Pigment produced by the Company during the years 2004-05 and 2006-07.</p>
10	52	„	<p>The Committee understands that major reason attributed for off-grade production was deviation from colour specification fixed for the production and that colour changes during the process were caused mainly on account of leakage of water in certain critical equipments.</p>
11	53	„	<p>The Committee learns that there is excess consumption of raw materials and chemicals, especially of make-up acid. The Committee also noticed that pond water was not being utilized for process operations in Ilmenite Beneficiation Plant (IBP) and Acid Regeneration Plant (ARP) as envisaged in the chloride recovery project. This resulted in heavy loss of chlorides and led to excess consumption of make-up acid. The Committee is</p>

(1)	(2)	(3)	(4)
			<p>not satisfied with the reason stated by the company and therefore recommends that the exact reasons for excess consumption should be identified and steps be taken to avoid this. The Committee desires to be informed of the steps taken and also of the consumption of make-up acid and liquid chlorine from 2004-2005 to 2006-2007.</p>
12	54	Industries	<p>The Committee finds that the Company had not fixed any standard for consumption of utility items like air, water and steam required for the operation of the TDP plants and further added that flow meters were also not installed to assess the exact quantity of air consumed by each production centre. The Committee also informed that major loss occurs to steam, which still demands improvement. The Committee therefore recommends that the flow meters for steam and water should be installed. Regarding the consumption of utilities, the Committee recommends that norms should be fixed for their consumption in order to avoid loss due to excess consumption.</p>
13	55	„	<p>The Committee is shocked to find that selection of stainless steel plates required for the conveyor in the tunnel drier was wrong and the company couldn't find out the mistake in design and the mistake was found only when they started fitting the plates. The Committee is not at all convinced by the arguments of the witness that the supplier was not to meet the loss on account of the faulty design because it was technically and legally impossible. The Committee expresses displeasure over the lethargic attitude of the Company in this matter. The Committee therefore recommends that duties and responsibilities of all supervisory staff should be fixed and strict action taken to recover loss to the Company in case of dereliction of duty.</p>

(1)	(2)	(3)	(4)
14	56	Industries	<p>The Committee expresses anger over the fact that the management took over 4 years to decide to purchase a Centrifugal Air Compressor costing Rs. 1.63 crore which would help the company to save Rs. 1.34 crore per annum by way of power consumption, maintenance cost and holding of inventory of spares, even though the company itself had huge surplus funds. At a time when technology is advancing at great speed, such delay is imprudent and disastrous to the company. The Committee recommends that such instances should be avoided in future and proper evaluation of the necessity and utility of new machinery should be undertaken. The Committee wishes to be informed of the functioning of the new compressor and of the savings obtained during the last 3 years. The Committee is displeased over the Company's unpardonable lethargic attitude and delay in installing new compressor and recommends that in future such delay in decision making, approval and installation should be avoided.</p>
15	57	„	<p>The Committee finds that there was inordinate delay in the installation of product packaging system and that the system was installed after shut down of the plant for 555 hours which resulted in avoidable production loss of 1,338 MT valued at Rs. 7.32 crore. The Committee feels that the incident depicts the lack of planning in procurement and installation of the packaging system. The Company should have planned to procure and install the packaging system as well as the Recycled Gas Blower during the annual shut down to avoid production loss.</p>
16	58	„	<p>The Committee is astonished to find that the company floated a purchase enquiry to import the expansion bellows only when the reorder level was reached and no further steps were taken for</p>

(1)	(2)	(3)	(4)
			<p>procurement. This caused a stock out situation for bellows resulting in loss of production of 82 MT of raw pigment valued at Rs. 46.57 lakh. The Committee expresses displeasure over the Company's act of blaming system failure of the computer, for not signalling the lack of response of the supplier instead of the personnel in charge. The Committee also expresses strong displeasure over the management's stand that responsibility for the lapse could not be fixed as this was not intentional. The Committee recommends that responsibility for this lapse should be fixed and action taken intimated to the Committee.</p>
17	59	Industries	<p>The Committee learns that 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", but quality-wise its products rank only third in the Indian market due to low quality, weight variations, non-development of new grades etc. The Committee therefore recommends that steps should be taken to improve efficiency, to develop new grades of pigment and to increase domestic sales in order to get higher profit margins. The Committee wishes to be informed of the steps taken and of volume of domestic sales during the years 2003-2004 to 2006-2007. The Committee may also be informed of the benefits from research and development in the R&D wing of the company.</p>
18	60	„	<p>The Committee understands that the Company had not availed of any benefit under DEPB (Duty Entitlement Pass Book) scheme during 2001-2004 as SION (standard input-output norm) for Rutile grade Titanium Dioxide Pigment had not been got fixed by the Director General of Foreign Trade. The company's failure to avail of the benefit of the</p>

(1)	(2)	(3)	(4)
			<p>scheme during the period 2001-2004 resulted in a loss of entitlement to the extent of Rs. 11.98 crore. The Committee recommends that responsibility be fixed for the lapse and action taken to prevent recurrence in future. The Committee may be informed of the benefits obtained under the scheme since 2003-2004.</p>
19	61	Industries	<p>The Committee expresses displeasure over the company's delay in implementing the major cost saving schemes, recommended by the Central Power Research Institute (CPRI), after energy audit which would result in overall cost saving of Rs. 1.07 crore per annum in the Electrical Section and Rs. 10.30 crore in the mechanical portion against a total capital investment of Rs. 3.34 crore. The Committee therefore recommends that the Company should implement the schemes without any further delay.</p>
20	62	„	<p>The Committee finds total irresponsibility and malafide intentions on the company's part in not making the change over from furnace oil to coal even though the Central Power Research Institute had recommended it as it would help the company to save Rs. 8.75 crore per annum. The Directors Report on the account of 2001-2002 had also envisaged a saving of Rs. 9 crore by substituting furnace oil with coal. The Committee finds that the estimated capital cost for the 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. By this laxity the company has caused loss of more than Rs. 40 crore on this count alone. The company had not placed the matter before the Board even in December 2006 and Government sanction had not been sought. The Committee feels that there was no need to engage the Engineering consultant MECON to study what has already been studied by the CPRI, and that the delay is unjustified as well as</p>

(1)	(2)	(3)	(4)
			purposeful. The Committee recommends that responsibility be fixed and action taken for the lapse. The Committee desires to be informed of the present stage of switch-over, of the firms from which furnace oil is purchased and of the amounts spent on the purchase of furnace oil during the years 2004-2005, 2005-2006 and 2006-2007.
21	63	Industries	The Committee finds that the inventory control and internal audit systems in the company need to be strengthened and recommends that action be taken for the same. The Committee also suggests that steps should be taken to make the finance wing of the company more efficient.

APPENDIX II

NOTES FURNISHED BY THE GOVERNMENT ON THE AUDIT PARAGRAPH

<i>Para</i>	<i>Reviews</i>	<i>Action Taken</i>
(1)	(2)	(3)
2.1.11		<p><i>2.1.11 & 2.1.12</i></p> <p>The installed capacity of Titanium Dioxide Pigment Plant was 22,000 MT per year till October 2005. The production related incentive scheme was introduced in the company after due approval from Board and Government from 1994-95. At the time of introduction of the scheme the installed capacity was still 22,000 MT. The annual production of pigment increased from year to year by ensuring better efficiency, increased plant availability by preventive and predictive maintenance and technology changes without incurring substantial capital investment. The capacity enhancement plans were introduced from 2001 in a phased manner and the first of expansion upto 40,000 MT per year was achieved in October 2005 only. The incentive scheme introduced from 1994-95 continued till now as per bi-party agreement with the trade unions. The revised incentive scheme currently being discussed with the unions is expected to come into force within a short period. The benefits envisaged in the new scheme cannot be far from that presently enjoyed by the employees. Therefore the observation of AG audit that non-declaration of installed capacity higher than that of 22,000 MT has resulted in over payment of incentive does not appear to be correct.</p>
2.1.14		<p><i>2.1.14</i></p> <p>The old mineral separation plant established in 1932 continued to be in operation without any</p>

(1)	(2)	(3)
		<p>capital addition till Nov. 2002. Consequently during the period from 1999 to 2003 the recovery of Ilmenite remained low at around 65 to 70% causing loss of production of Ilmenite. To overcome this, the company invested around Rs. 13.6 crores to set up a modernization plant with a capacity to process 25 MT per/hr of raw sand. Considering 8000 hrs operation and 30% average Ilmenite content, the maximum Ilmenite that can be recovered from this plant even at a 90% recovery is only 54,000 MT in a year (and not 70000 as stated by Audit). In 2003-04 the company could produce 50,554 MT. The shortage was due to unexpected failures of machinery and teething trouble of operation of the sophisticated new plant. It is expected that during 2005-06 this plant will reach 100% Ilmenite capacity.</p>
2.1.15		<p>As the pigment production was increased due to de-bottlenecking to the level of 25,000 MT-28,000 MT during the period under review, it became necessary to outsource Ilmenite to cater to the added requirement of pigment plant. Even though the procurement cost of Ilmenite from IRE was slightly higher than the production cost of Ilmenite in MS plant, the value addition effected on the procured Ilmenite resulted in substantial value addition. It may also be noted that the world leading manufacturers of TiO_2 like M/s. Dupont etc. outsource the entire requirement of ilmenite and operate successful TiO_2 facilities.</p> <p>It may also be mentioned that the designed recovery rate of the modernized plant is only 84% and the actual recovery is much more than this in the new plant.</p>

(1)	(2)	(3)
2.1.16		The modernization plant already commissioned produces a fraction containing higher rutile content. In order to utilize this fraction and separate the valuable rutile, the company is setting up a rutile recovery facility incurring a cost of approximately Rs. 6 crores which will produce 4500 MT of rutile per year. The company has also plans to augment Zircon recovery by installing additional equipments for which tenders have already been released. Since the plant was neither equipped nor envisaged to recover these fractions, the loss estimated is only theoretical.
2.1.17		The Company has already taken action to refix the production incentive, as the agreement with the Union in this regard has expired. The new capacity level will be taken into account while refixing the incentive.
2.1.18		<p data-bbox="1048 802 1232 829">2.1.18 & 2.1.19</p> <p data-bbox="1048 850 1563 1437">The collection of raw sand is currently done by sea washings employing mainly unskilled labour and therefore the amount of sand which can be collected is not enough for higher level of production. It may also be noted that the area where the sea washings are collected are thickly populated and several social and economical problems were encountered during the collection process. There is also a public fear that collection of sand from beachfront creates imbalance in the coastal eco system even to the extent that the tsunami disaster during Dec. 2004 was probably due to large-scale collection from sea beach. Though these apprehensions are unfounded and without any scientific reasons the attitude of the general public still leans towards such beliefs. Considering this and also in line with the expansion projects of Tio₂ Pigment Plant,</p>

(1)	(2)	(3)
		company has decided to install a new mineral separation plant having dredge facility for inland mining. This project has got approval of the Board of Directors to the Government. Orders are placed for procurement of plant and machinery etc. It is expected that the company can start collection of sand by dredging by early 2007.
2.1.19		For the reasons stated above, occasional outsourcing of raw sand had to be resorted to, in order to maintain production of pigment. Had this not been done the production loss will be far more than the cost of sand purchased.
2.1.20		In all estimation normal rainy season will be taken into account. But interruption due to sea erosion and consequent social disturbances cannot be estimated.
2.1.21		The period mentioned is just after commissioning of the plant and the efficiency achieved as per audit figures itself is 90%.
2.1.22		The wet mill has commissioned in December 2002 and it is quite normal for any newly commissioned plant to take some time to achieve full capacity. The shortage of fresh water was solved by laying pipe line from TDP Plant to MS Plant, which required some time to execute the work.
2.1.23		No comments
2.1.24		No comments
2.1.25		No comments
2.1.26		As explained earlier the nameplate capacity of the Pigment Plant was only 22,000 MT till Oct. 2005. The plant had produced more than the nameplate capacity for the 5 years under

(1)	(2)	(3)
		<p>review due to the following reasons—</p> <ol style="list-style-type: none"> 1. Improvement in the plant availability by proper preventive and predictive maintenance. 2. Replacement of silica pipes with metallic pipes through a technology change. 3. Repairs and replacement of vulnerable equipments. 4. De-bottlenecking of some areas. <p>It may please be noted that by enchancing the production capability of one section or putting up few equipments of higher capacities the overall capacity of the plant will not increase as the process is of continuous nature and the whole plant is an integrated one. Therefore replacement of silica pipes in U.300 cannot increase the plant capacity as a whole to 36,000 MT, but will still remain 22,000 MT until the complete plant capacity is increased. The audit has made an incorrect observation that by increasing the capacity of the whole plant should increase to 36,000 MT.</p> <p>The action taken on the above point is that the capacity of the plant as a whole has been increased to 40,000 MT by October 2005 and according to the approved corporate plan, the capacity will be increased to 60,000 MT in June 2006 and to 1,00,000 MT by middle of 2007. The expansion projects are under progress and it is expected to complete it in a time bound manner.</p> <p>The Ilmenite Beneficiation Plant has an installed capacity of 30,000 MT, which remains same till date. This plant is having three integrated sections viz. the roasting section, the</p>

(1)	(2)	(3)
		<p>digestion section and calcinations section. Though in the digestion section, the Company added two digesters as replacement of the two old ones, there was no change of equipment availability in the roaster and calciner sections. Therefore, the capacity of the IBP remains 30,000 MT and the production of BI during five years under review remains to be near the installed capacity.</p>
2.1.27		<p>The company has established monitoring and control mechanism to ensure higher on-stream availability of plant and machinery by introducing the following—</p> <ol style="list-style-type: none"> 1. Monthly analysis of down time and evolving corrective and preventive action. Review action of the corrective and preventive action for effectiveness of the same is also done on a monthly basis. 2. Setting up of targets for on-stream availability and review of the same by top management on a quarterly basis. 3. Introduced conditioning monitoring system on all rotating equipments for preventive maintenance and replacements. 4. Replacing critical rotating equipments after 10 years of service. 5. Introducing stringent inspection and testing methods for all incoming materials. 6. Effectiveness of the vendors and insisting on ISO certification for vendors of critical items.

(1)	(2)	(3)
		<p>7. Periodical training and skill assessment for the engineers and supervisory staff.</p> <p>8. Introduction of DCS for optimization of process parameters to enable longer life of equipments.</p> <p>9. The performance of the plant is evaluated on Board level meetings.</p>
		<p>The Company expects that the plant availability will be considerably improved due to the above actions.</p>
2.1.28		No comments
2.1.29		2.1.29 & 2.1.30
		<p>As explained earlier the digesters are rotating equipments handling extremely corrosive materials. These are lined with rubber and refractory bricks. In the past the plant down time due to damages to these digesters was too prohibitive. So the company has decided to install new digesters as replacement to old digesters and hence there is no capacity enhancement due to addition of digesters. The old digesters will be scrapped and disposed as per practice.</p>
2.1.30		
2.1.31		2.1.31 & 2.1.32
		<p>The Titanium Dioxide Pigment plant with 22,000 MT capacity had two chlorinators. These chlorinators are working at elevated temperatures handling chlorine gas. The lining of the chlorinators is susceptible to frequent damages and lining of one chlorinator usually takes about a month's item. The average life of these chlorinators was around ten months. During the lining process the pigment production capacity reduces to a half and therefore in order to ensure continued availability of chlorinators a third chlorinator</p>

(1)	(2)	(3)
2.1.32		was erected so that two chlorinators will be available at all times. This does not necessarily increase the total pigment production capacity.
2.1.33		The brine Chilling Plant as noted in the report is more than 20 years old and obviously the failures of equipments like condensers, compressors etc. had to be anticipated. The company has ordered a new Brine Chilling Plant in 2005 which can cater to the enhanced requirement for the production of upto 1,00,000 MT of pigment. Once this new plant is installed the old Brine Chilling Plant will be scrapped as per practice.
2.1.34		<i>2.1.34 to 2.1.36</i>
2.1.35		The Titanium Dioxide Pigment plant handles extremely corrosive materials like Titanium Tetrachloride, Chlorine, Aluminum chloride etc. The life of these critical equipments cannot be predicted with any accuracy and therefore these are being replaced either on failures or on achieving certain tonnage production. This is the usual practice adopted for such equipments. It may also be noted that the handling of titanium tetrachloride is a new technology as regards Indian manufacturers are concerned. Therefore in order to restrict the cost of procurement of equipments from a particular supplier the company had to strike a balance on optimum quality Vs. price while procuring the equipments indigenously. However the company has been constantly making efforts to develop Indian manufacturers to acquire the skills needed to manufacture such items and consequently these equipments have started to give more life.
2.1.36		

(1)	(2)	(3)
2.1.37	2.1.37 to 2.1.38	The company has taken action to improve the recovery of Tio ₂ Pigment in U.400 by the following actions—
2.1.38	<ol style="list-style-type: none"> 1. Improving the efficiency of the filtration system by introducing the latest state of the art filter system. 2. Closely mointoring the plant wastage and continuous improvement of the recovery. 3. Introducing the DCS system whereby all the process parameters are automatically monitored and maintained. 4. By installing the latest state of the art packing system whereby the loss while packing is totally eliminated. 	With the above improvements the finished pigment to raw pigment ratio is considerably improved and stands currently at the level of approximately 1.05.
2.1.39	2.1.39	The company installed DCS to monitor the process parameters. The company is also envisaging DCS in U.300 where basic raw pigment is made. However the normal process wastage and floor washings from U.300 will have to be treated as off colour which is reclaimed as usable material, which otherwise would be lost normally. By recliming the waste and selling it at a reduced cost, the company is making additional revenue instead of allowing this waste to go without any use.
2.1.40	The hydrated lime, which is used in the effluent treatment, were sourced mainly from wthin the state where large number of small scale manufacturers exists. The requirement of lime has considerably increased with the	

(1)	(2)	(3)
		<p>enhanced production and stringent norms put forward by the Pollution Control Board. In order to cater to the enhanced need, the company put up a new lime preparation plant with automatic bag splitter and other machineries. This was primarily done to safeguard the health of the workmen who charge the lime to the system. The company had to emphasize on better package for the lime as plastic bags and jute bags could not be accepted as required by the EMS system as they are not biodegraded. The local suppliers found it difficult in supplying in paper bags.</p> <p>The lime of 70% CaO generates 30% grit which is a heavy solid burden that damages the lining of the tank, pipe lines and making the effluent ponds fill up very fast. Considering this the company increased the quality requirements to 80% CaO as was given in all tenders earlier also. Probably because of the quality improvement, the suppliers backed out due to cost consideration and finally decided to compromise and the tenders specification was reduced to 70% lime. Even then the availability of lime was not improved to the extent needed by the Company. The company is also developing out side state suppliers to improve the situation.</p> <p>The company has taken sincere actions to control the raw material consumption ratios as follows—</p> <ol style="list-style-type: none"> 1. Monthly analysis of usage variants with a view to take corrective and preventive actions.

(1)	(2)	(3)
		<ol style="list-style-type: none"> 2. Quarterly analysis of usage variants by the top management and advising concerned Managers for improvement. 3. Introduction of DCS technology for monitoring and controlling process parameters. 4. Introducing quality assurance plans for inspection and acceptance of raw materials. 5. Optimization of process parameters. 6. Improving efficiency of the equipments by proper selection and replacement of old equipments. 7. Recovery and recycling wherever possible. These actions have yielded considerable improvements in the usage variants in raw material and chemicals.
2.1.42		<p>The Acid Regeneration Plant (ARP) was installed as a pollution control system to prevent the effluent spent acid going out side the company. The design of the ARP is based on certain chloride levels in the spent acid generated in IBP. The process employed in this plant envisages certain chloride loss through the by product iron oxide. Apart from the loss of chlorines through this oxide the oxide itself is declared as a hazardous substance and disposal of the same is difficult. Therefore while evolving the corporate plan for expansion of the company we have decided to install a new synthetic rutile plant and beneficiated Ilmenite plant of more improved technology which will not generate hazardous bi-products. Once this plant is commissioned the ARP along with old BI plant will be closed down and disposed as per practice.</p>

(1)	(2)	(3)
2.1.43		The flow meters for steam and water have already been installed and consumption is monitored, on a regular basis.
2.1.44		The supplier of the spare apart of the tunnel dryer has categorically admitted that the wrong selection was done by them and obviously that is why they replaced the item free of cost. However, the company has evolved proper documentation system whereby all obsolete drawings were scrapped and stamped and also a proper inspection on arrival of spare parts at side has been introduced. These steps will ensure that such mistakes will not occur again.
2.1.45		The compressors are installed and commissioned already. The procurement activities have been streamlined and responsibilities and accountabilities have been fixed so that such delays will not happen in future.
2.1.46		The corporate plan envisaged by the company includes setting up of 200 TPD oxygen palnt on BOO basis as the investment for other core activities is also very high and it is a common practice to out source such raw materials on BOO basis. The tenders are in the final stages for placement of order.
2.1.47		Despite the best efforts to ensure the smooth supply, by arranging multiple sources, interruption in supply could not be avoided.
2.1.48		Installation of 125 TPD Oxygen Plant will take considerable time. In the meanwhile a stopgap arrangement was considered necessary as smooth supply of Oxygen cannot be ensured from outside. Hence a ready to use 10 TPD Oxygen Plant was installed to minimize interruptions in production.

(1)	(2)	(3)
2.1.49		Necessary measures have been introduced to meticulously plan and process materials in advance before taking annual shut down.
2.1.50		The automatic bag packing system installed in U.400 is a very sophisticated state of art equipment system. The manufacturing and supply of this equipment had to undergo various stages of inspection and testing. Therefore this machine could not be erected during the annual shut down and also the annual shut down could not be postponed due to other technological considerations and no further action could be taken on this.
2.1.51		The decision to replace the recycling gas blower was a development work by indigenization of imported equipment. Careful considerations were given for the procurement of the same which contributed the delay. However the company has evolved scrutiny of the technical specification of such critical equipments so that procurement of this equipment can be made within the time frame decided by the company.
2.1.52		The decision to replace the recycling gas blower was a development work by indigenization of imported equipment. Careful considerations were given for the procurement of the same which contributed the delay. However the company has evolved scrutiny of the technical specification of such critical equipments so that procurement of this equipment can be made within the time frame decided by the company.
2.1.53		<i>Petroleum Coke is available only from a single source viz. M/s. Reliance Petroleum Ltd. and as such there is little scope for any price negotiation. The raw coke procured in bulk quantity from this company from Gujarat, is being brought in ships to Tuticorin in Tamil Nadu and pulverized further to the requirement of various industries. The tender to purchase the material was published in News Papers and almost all the suppliers responded to the tender notice. Resorting to re-tendering therefore will not serve any purpose. The Company is continuously engaged in the process of finding out an alternate to this material.</i>

(1)	(2)	(3)
2.1.54		In this case though enquiry was floated to the original manufacturer in time, the non-response of the supplier had gone unnoticed leading to a situation of emergency. To avoid recurrence of similar situation a committee was formed to go into details and suggest corrective steps to be taken. The committees recommendations have been implemented and various mechanisms are in place to detect in time any such lapses.
2.1.55		The Company had been setting for itself higher budgetary targets with a view to motivate the workforce for achieving higher results. This is the reason for the shortfall of actual performance compared to that of the budget. The production and sales have, in fact, registered a steady growth over the years. Inability to increase the domestic market share cannot be attributed to higher price alone. At present the Company is able to offer only 6 grades of TiO ₂ to the market while the overseas manufacturers are offering several other grades. To address this problem the Company has already taken steps to augment the capability of its R & D division by inducting additional qualified hands, which will enable production of more and more grades. As regards marketing strategy, the Company has a policy of adjusting its prices in line with the landed cost of imported material, as to be competitive in the market.
2.1.56		The Company had been setting for itself higher budgetary targets with a view to motivate the workforce for achieving higher results. This is the reason for the shortfall of actual performance compared to that of the budget. The production and sales have, in

(1)	(2)	(3)
		fact, registered a steady growth over the years. Inability to increase the domestic market share cannot be attributed to higher price alone. At present the Company is able to offer only 6 grades of TiO_2 to the market while the overseas manufacturers are offering several other grades. To address this problem the Company has already taken steps to augment the capability of its R & D division by inducting additional qualified hands, which will enable production of more and more grades. As regards marketing strategy, the Company has a policy of adjusting its prices in line with the landed cost of imported material, as to be competitive in the market.
2.1.57		As explained above, the lower share in the domestic market is not due to the price being higher. The consumers require different grades of pigment, which are not in the production range of KMML. For this reason all out efforts are being made to make different grades. Further, the export market needs to be developed in the long-term interest of the Company.
2.1.58		Asian Paints Ltd. being the single largest consumer of TiO_2 with higher potentials, it was only appropriate that special price was offered to them lest they may resort to imports. This had another objective of inducing Asian Paints Ltd. to buy more from KMML by reducing their imports. By imposing the penalty not only the very objective of special pricing would be lost but also end up with the possibility of losing the customer altogether. The penalty was waived by the Board considering the long term business interest of KMML.

(1)	(2)	(3)
2.1.59	The Company has introduced system and procedures to ensure that EPCG benefits are availed to the maximum extent. The Company also got the SION fixed in 2005-06 and initiated steps to avail DEPB benefits.	
2.1.60	The Company has now got the SION fixed by DGFT and started availing the eligible benefit under the DEPB scheme.	
2.1.61	All the suggestions contained in the report submitted by Central Power Research Institute (CPRI) were not workable to be implemented immediately due to process restrictions. Without impairing the process, the following measures have already been introduced.	
	<ol style="list-style-type: none"> 1. Additional Capacitor Banks have been installed for improving power factor. 2. Conventional starters have been replaced with variable frequency drives wherever feasible without affecting the process. 3. Reciprocating compressors in the Oxygen Plant and Nitrogen Service have been replaced by centrifugal compressors. 4. A sophisticated and energy efficient filter drier has been installed and commissioned. 	
2.1.62	<i>The other suggestions made by CPRI are under the active consideration of the Company.</i>	
2.1.63	The Company switched over to Furnace Oil from coal as fuel due to the following reasons.	
	(a) Non-availability of required quality and quantity of coal.	

(1)	(2)	(3)
		<p>(b) High Cost of transportation</p> <p>(c) Problems associated with disposal of ash</p> <p>(d) Poor performance of the boiler.</p> <p>Now to switch back to coal, the plant has to be shut down for a long period, which the company can ill afford. In the corporate plan of the Company, a new steam generating plant of higher capacity has been envisaged. Considering the availability of various clean and cheaper fuels like LNG, LSHS, domestic Gas etc. our consultant M/s. MECON has been advised to study and suggest the best option of fuel. Based on MECON's report, a new steam plant will be installed.</p>
2.1.64		<p>The higher inventory level is partly due to complex nature of the plant and partly due to the locational and logistical reasons. The Company has introduced various mechanism to control build up of inventory. All purchase proposals are scrutinized by the special Committee viz. Inventory Control Committee and cleared only if found necessary.</p> <p>A separate committee has been formed to go into details and bring out the list of items, which are no longer required. Depending upon the outcome suitable action will be taken to dispose off the items.</p> <p>The Company has taken action either to repair or to replace the rejected items. Since most of such cases of rejections involve transit damages, the cost involved will be recovered from the underwriters.</p>
2.1.65		<p>Steps have been taken to strengthen the internal audit wing.</p>

(1)	(2)	(3)
2.1.66		A proper system and procedure has been envolved to inform the Board of the action taken on each of its decisions. The Company has fixed norms in respect of the quantity of Petroleum Coke to be returned after sieving.
2.1.67		Due to lack of introduction of computerization in the past and erratic behaviour of the plant, the profit could not be estimated with reasonable accuracy. This lead to either short payment or excess payment of advance tax. Such problems do not exist any more after the computerization and introduction of meaningful budgetary estimates every year.
2.1.68		It appears that the Audit has not taken into consideration the appeals filed by the Company against the assessment orders. On final disposal of the appeals, the interest payable by the Company for the two years, has been reduced to Rs. 49 lakhs only as against Rs. 1.42 crores originally assessed.

ERRATA

COMMITTEE ON PUBLIC UNDERTAKINGS (2006-2008)

Fifty Third Report

<i>Page No.</i>	<i>Para No.</i>	<i>Line No.</i>	<i>For</i>	<i>Read</i>
(1)	(2)	(3)	(4)	(5)
i		10	2000	2004
2	2	3	<u>Rs. 30.93 crore wholly subscribed</u>	Rs. 30.93 crore wholly subscribed
2	4	1	results, the	results that the
2	5	2	committees,	Committees
3	3	2	Annexure II	Annexure 11
4	3	5	raw-sand available	raw-sand processed. The content of Ilmenite, Rutile and Ziron in the raw-sand available
10	1	1	as a	(as a
10	1	2	36000 TPA	36000 TPA)
10	1	5	2002-2004	2003-2004
12	5	6	Valued of	Value at
13	5	1	Minimum 80% Ca(OH) ₂	(Minimum Ca(OH) ₂
15	2	5	comparision	comparison
16	4	2	only on	only in
17	1	2	1345	1,345
17	2	5	contactor	contractor
18	1	4	tender	tenderer

(1)	(2)	(3)	(4)	(5)
18	3	5	however	however,
18	6	2	TPD	TDP
21	6	6	impetimented	implemented
22	Table	5	3097.00	3907.00
31	2	15	cacelling	cacelling
39	5	8	un	in
40	1	1	parturbed	perturbed
46	Table	17	433	434
59	Appe ndix II	2	Para	paragraph No.
59	-	3	Reviews	Audit paragraph
67		22	1.05	1:1.05
71	4			Change from Italics to Normal Font
74				Change from Italics to Normal font