

CHAPTER III

REVIEW RELATING TO STATUTORY CORPORATION

3 MATERIAL MANAGEMENT AND INVENTORY CONTROL IN KERALA STATE ELECTRICITY BOARD

Highlights

Procurement of All Aluminium Conductor (AAC) exclusively from local SSI units at higher rates when compared to the rate of SSI units outside the State resulted in extra expenditure of Rs.5.42 crore.

(Paragraph 3.4.1.2.(ii))

Avoidable purchase of disc insulators, stay wire and tower parts without considering the stock available on hand resulted in blocking up of Rs.4.19 crore and interest loss of Rs.0.87 crore.

(Paragraph 3.4.3.2. (i) to (v))

Excessive holding of materials in stock resulted in blocking up of Rs.8.10 crore leading to interest loss of Rs.1.46 crore.

(Paragraph 3.5.1.1)

Prolonged storage of transformers at site resulted in idling of funds worth Rs.6.75 crore and resultant loss of interest of Rs.5.42 crore.

(Paragraph 3.5.2.1.(i))

Due to incorrect accounting of the value of stock, the Materials at Site Account showed credit balances in 33 sections amounting to Rs.2.76 crore.

(Paragraph 3.5.2.2 (iii))

2607 items of store valued at Rs.3.10 crore were lying idle in 4 stores without issue since 1989-90 onwards.

(Paragraph 3.5.2.B)

Idle stock of MS angles worth Rs.1.34 crore since 1992 resulted in interest loss of Rs.1.69 crore.

(Paragraph 3.5.2.B.1(i))

Avoidable procurement of huge quantities of tower parts resulted in blocking up of Rs.11.95 crore and interest loss of Rs.8.33 crore.

(Paragraph 3.5.2.B.1 (ii) b)

47 items (value: Rs.15.71 crore) procured without proper assessment of requirement for various schemes under World Bank Project were not used resulting in interest loss of Rs.11.46 crore.

(Paragraph 3.5.2.B.3)

3.1 Introduction

The Kerala State Electricity Board (Board), formed in April 1957 under Section 5(1) of the Electricity (Supply) Act, 1948 is engaged in generation, transmission and distribution of power in the State of Kerala. The materials handled by the Board are broadly categorised into Capital (Project) stores, Operation and Maintenance (O&M) stores and Fuel. The total average outgo on purchase of store items by the Board during the five years ended 1999-2000 was Rs.288 crore comprising Capital stores Rs.113 crore; Operation and maintenance Rs.109 crore and Fuel Rs.66 crore. As on 31 March 2000 there were 19 hydel stations (1757 MW) and 2 thermal stations (235 MW) under the Board.

3.2 Organisational set-up

The Material Procurement and Inventory Control in the Board is a centralised function under the control of the Chief Engineer (Technical, Contracts & Materials) (till December 1998 under Chief Engineer, Materials Management) assisted by one Deputy Chief Engineer and 6 Executive Engineers. The Stores organisation of the Board consists of one Project Central Store and one Transmission Central Store at Angamally, 3 Regional Stores located at Kundara, Aluva and Kallai each under the control of one Executive Engineer (assisted by one Assistant Executive Engineer, three Assistant Engineers and one Finance Officer/Accounts Officer/Divisional Accountant) with the overall supervisory charge of the Chief Engineer (TC&M), 41 Sub-Regional Stores under the Dy.Chief Engineers of the Electrical, Transmission and Civil wings, and 297 Sub-Stores attached to all the Assistant Engineers (Sections) of Distribution Wing.

3.3 Scope of Audit

A review of Material Management and Inventory Control in the Board was included in the Report of the Comptroller & Auditor General of India for the year 1986-87. The review was discussed by COPU and recommendations

were included in the 49th Report presented in February 1995. Action Taken Notes thereon were received in January 2001.

Another Review on the Material Management and Inventory Control covering the period of 5 years up to 1992-93 was included in the Report of the Comptroller and Auditor General of India for the year ended 31 March 1994. Further two topical reviews on 'Purchase and Utilisation of Distribution Transformers' and 'Pole casting activity' were also conducted and included in the Reports for the years ended 31 March 1996 and 1997 respectively. These reports have not been discussed by COPU so far (August 2001).

The present review covers a test-check on performance of the Board with emphasis on assessment, planning, procurement, transportation, utilisation and storage of materials in all the 5 Central and Regional Stores, 8 Sub-Regional Stores* and 67 sub-stores for the 5 years ended 31 March 2001 and the results are discussed in the succeeding paragraphs.

3.4 Material Management

3.4.1 Purchase procedure

The Board follows a centralised pattern of purchase in respect of majority of items. While the Board of Members take decisions on purchases involving Rs.2.5 crore and above, the Purchase Committee consisting of the full time members viz. Chairman, Member (Finance), Member (Transmission) and Member (Distribution). Chief Engineer (TC&M), Dy. Chief Engineer and Financial Adviser have been delegated with powers to make purchases up to Rs.2.5 crore and the Chief Engineer up to Rs.50 lakh. Field officers have been delegated with limited powers to make local purchases for urgent requirements and also to purchase materials not procured centrally. The system, procedures, rules and regulation for the purchase of the materials are laid down by the Board in the Manual of Commercial Accounting System (Vol. II). In respect of matters not covered by the Manual, the Board follows the Store Purchase Rules of Government of Kerala. As per the procedure laid down in the Manual, the field units are required to send their indents to the Head Office. After accumulating sufficient indents, purchase action had to be initiated by the Chief Engineer (TC&M) (by the respective Chief Engineers till January 1999) for final placement of orders for supply of materials. The purchases are made through open tender system, the procedures for which are laid down in the Manual. While finalising tenders, price preference of 15 *per cent* is given to Small Scale Industrial Units (SSI) and 10 *per cent* to Kerala Government Undertakings. Further, certain items of conductors are procured exclusively from SSI Units in Kerala as directed by the Government.

* Transmission Construction Circle Store, Thrissur and the Sub-Regional Stores attached to the Electrical Circles at Thiruvananthapuram, Kollam, Kottarakara, Pathanamthitta, Kottayam, Manjeri and Kozhikode

The details of purchases/consumption during the four years ended 31 March 2000 are given in Annexure 16. The details in the Annexure indicated that the stock at the close of each of the four years ended 31 March 2000 represented 13 to 43 months' consumption for the respective years.

The following points/deviations from purchase procedure were noticed in audit:

3.4.1.1 Local purchases

Financial limits delegated for local purchase exceeded by Deputy Chief Engineer

(i) As per the powers delegated to Deputy Chief Engineer at Electrical Circle Offices of the Board, the annual financial limit prescribed for local purchases was Rs.5 lakh up to 1997 and Rs.12 lakh thereafter. A review of the quantum of local purchases effected at the Electrical Circle offices revealed that the purchases exceeded the limit in 7 units in 1995-96, 2 units in 1996-97, one unit in 1997-98 and 2 units in 1998-99. The value of purchases exceeded the limit by Rs.7.30 lakh to Rs.2.34 crore during 1995-96, Rs.7 lakh to Rs.21 lakh during 1996-97, Rs.31 lakh in 1997-98 and Rs.6 lakh to Rs.8 lakh in 1998-99.

(ii) In respect of local purchases, financial limits for purchases by Deputy Chief Engineer was enhanced from Rs.50000 to Rs.2 lakh per purchase from November 1997. However, it was noticed in audit that;

(a) the limit of Rs.50000 was exceeded on 17 and 18 of April 1995 at Electrical Circle, Manjeri by splitting the orders for Aluminium conductors to 2 orders of Rs.44670 each;

Local purchase orders split to circumvent delegated limits

(b) the limit of Rs.2 lakh was circumvented by splitting the purchase order on 9 March 1998 for MS bolt and nuts into 8 orders involving a total value of Rs.4.44 lakh at Electrical Circle, Thiruvananthapuram; and

(c) at Electrical Circle, Manjeri the limit of Rs.2 lakh was exceeded by splitting one order for Rs. 2.63 lakh into three separate orders on 21 May 1998.

3.4.1.2 Price preference to SSI/local units

(i) It was noticed in audit that while working out the price of SSI units for purpose of bid evaluation, instead of considering the basic price, the Board used to calculate the price preference of 15 *per cent* on the lowest quoted all inclusive rate of non-SSI firms after deducting only the sales tax. Such price preference is again added to the lowest all inclusive rate to arrive at the price payable to the SSI units. Since the price quoted included elements like excise duty, sales tax, freight, etc., the inclusion of these items while calculating the price preference conferred unintended financial benefit to the SSI units. A test check by Audit revealed 4 instances of purchase of materials like pipe fittings

(tender no.39), Galvanised iron (tender no.32), Galvanised stay rod (tender no.33) and 11 KV Hardware fittings (tender no.27) during the year 1998-99 where total undue benefit due to wrong evaluation to the extent of Rs.6.99 lakh was passed on to 16 units. Thus, evaluation for the purposes of offering price preference to SSIs needs to be corrected.

Extra expenditure of Rs.5.42 crore incurred due to purchase at higher rates from local SSI units

(ii) In respect of procurement of all aluminium conductors (AAC) which was exclusively reserved for local SSI units, as directed (1986) by the State Government, it was noticed that the rates quoted and paid for during the year 1997 was Rs.14280 (7/3.1 mm AAC) and Rs.7335 per km (7/2.21 mm AAC). As against this the rate of Orissa Small Scale Industries Development Corporation during the same period was only Rs.11745 and Rs.5994 per km respectively. The extra expenditure incurred by the Board due to purchase of 13100 km of 7/3.1 mm AAC and 15625 km of 7/2.21 mm AAC at higher rates from local SSI units during the period from April 1998 to April 2000 worked out to Rs.5.42 crore.

3.4.2 Material Budget

The Board was not preparing any detailed annual material budget as contemplated in the Store Purchase Rules of Government made applicable to the Board. However, materials were being procured with reference to annual purchase plans formulated on the basis of indents prepared with reference to targetted works and forwarded by Engineers of Distribution, Transmission and Civil wings. The actual purchases and utilisation thereagainst were not being compared and variance analysed, so as to take corrective action as discussed in paragraph 3.4.3.2 infra.

3.4.3 Order Placement and Execution

3.4.3.1 Absence of a scientific system

While effecting the purchases, the stock available at various stores, the quantity of materials actually required, lead time required for procuring the materials, etc., were not being considered. As a result, several purchases made were either without requirement or far in excess of the requirement leading to blocking of funds and consequent loss of interest besides deterioration in quality of materials, non-utilisation within guarantee period and loss of the benefit of subsequent price reductions, etc., as discussed below :

3.4.3.2 Avoidable purchase

(i) In August 1998 the Board had a stock of 38268 numbers of 11 KV 45 KN disc insulators in the two regional stores at Kundara and Aluva in addition to pending supplies for a quantity of 7458 numbers which was equivalent to the average consumption of the material for 18 months. However, during August/November 1998 the Board placed orders with three firms for a total quantity of 36000 numbers of disc insulators (WS Industries – 15000; BHEL – 7500; Allied ceramics – 13500) and received 43223 nos. till January 2000. It

was noticed in Audit that the closing stock in January 2000 was 50839 numbers indicating that the opening stock of 38268 numbers of disc insulators and pending supplies (7458 numbers) were sufficient to meet the requirement (30652 nos) and the entire purchase of 35765 numbers of the material during the period August 1998 to January 2000 was avoidable. Unnecessary procurement of disc insulators disregarding the adequacy of the stock in August 1998, resulted in avoidable locking up of Rs.82.85 lakh in inventory and interest loss of Rs.11.73 lakh for the period from August 1998 to January 2000 at 18* *per cent* per annum.

Avoidable purchase of disc insulators resulted in blocking up of Rs.1.15 crore and interest loss of Rs.0.25 crore

(ii) In respect of purchase order for 67000 numbers of the same material placed on BHEL in October 1999 also, it was noticed that the then existing opening stock of 65974 in all the three regional stores was sufficient to cater to the requirement for 41 months. The stock position was not considered at the time of purchase, with the result 66855 numbers of insulators were procured in December 1999/February 2000. Avoidable purchase of disc insulators resulted in blocking up of Rs.1.15 crore and loss of interest of Rs.24.58 lakh for the period from January 2000 to March 2001.

(iii) At the time of placing orders (August 1999) on South Indian Wire Ropes Limited, Aluva for the supply of 200 MT of 7/2.5 mm stay wire, there was a stock of 104.015 MT and a further quantity of 99.137 MT was pending supply against an earlier order. At the average monthly issue of 13.743 MT the stock would have sufficed 14.78 months' outgo. The availability of this quantity was not considered and 199.535 MT of the material valued at Rs.64.12 lakh was purchased during the period October 1999 to May 2000. The avoidable purchase of stay wire resulted in blocking up of funds and loss of interest of Rs.12.31 lakh for the period from November 1999 to March 2001.

Failure to utilise matching part of towers in stock resulted in avoidable fresh procurement for Rs.0.35 crore

(iv) As against a Purchase Order (July 1990) M/s TEE GEE KE Industries, Quilon supplied (1992) various parts required for 50 Nos. of 220 KV D2 type towers at T.C Stores, Angamally. Since certain matching parts were supplied by the firm at Edamon substore at a different location, 38 nos. were not used. Instead of collecting the matching parts from Edamon and utilising it, the Board placed (July 1995) a fresh order with M/s KEC International Limited, Bombay and procured (November 1997) 20 Nos. of 220 KV D2 towers at a cost of Rs.34.66 lakh. Out of these, only 13 towers were used (March 2001) leaving a total balance of 45 towers in stock.

Failure of the Board to transfer and use the matching part of towers available at Edamon, resulted in avoidable expenditure of Rs.34.66 lakh on purchase of 20 towers from KEC.

* Loss of interest wherever appears is calculated at the rate of 18 *per cent* per annum being the cash credit rate

The circumstances under which the fresh purchase of 20 towers was resorted to instead of transferring the parts available at Edamon and the reasons for non-issue of the tower parts, etc., called for in audit are awaited (August 2001).

Avoidable purchase of tower parts worth Rs.1.22 crore resulted in interest loss of Rs.0.38 crore

(v) The Board placed orders (December 1998) on M/s. L & T, Madras for the purchase of 430.02 MT of 220 KV tower parts (PQR type) and received at the TC Store, Angamally (May/June 1999) 414.860 MT of the material valued at Rs.1.22 crore. At the time of placing the order in December 1998, the Board held a stock of 1256.273 MT of same type of tower parts at its Transmission Construction Circle Store, Thrissur. Out of this 703.257 MT still remained (March 2001) in the store. Had the availability of this stock been considered, the purchase of 414.860 MT in December 1998 could have been avoided. The avoidable purchase had resulted in blocking up of Rs.1.22 crore and interest loss of Rs.38.43 lakh during the period from July 1999 to March 2001.

3.4.3.2.1 Improper upkeep and maintenance

Equipment stored in open yard led to rusting and other defects with avoidable expenditure of Rs. 0.32 crore

The Board placed (March/October 1994) orders on M/s. Asea Brown Boveri Limited (ABB), Baroda for the purchase of 22 nos. of 245 KV SF 6 circuit breakers and accessories at a total cost of Rs.2.52 crore. The entire quantity was received by December 1994 and payment of Rs.2.73 crore was made (September/November 1995) to the firm including price variation (Rs.9.69 lakh). These circuit breakers were intended for use in projects at Madakkathara (4), Cochin (1), Kanhirode (8), Areacode sub-station (1) and Kanjikode sub-station (8). But it was noticed in audit that the equipment were procured without properly co-ordinating the time and place of their requirement and none of these could be put to use till March 1998 and the guarantee period had already expired by December 1996. In April 1998, 12 nos. were installed at Areacode sub-station. The remaining 10 nos. were installed (June 1998 to October 1998) at Brahmapuram sub-station which was not originally intended for. The ten numbers of equipment installed at Brahmapuram were stored in open yard before issue to that sub-station rendering them defective due to entering of moisture in the driving mechanism/rusting and an additional amount of Rs.32.48 lakh had to be spent (January 1997 to January 1999) for rectification of defects. Thus, the procurement of SF 6 circuit breakers without proper planning and failure of the Board to ensure their upkeep and maintenance resulted in avoidable extra expenditure of Rs.32.48 lakh on repairs, besides, idling of funds amounting to Rs.2.73 crore from October 1995 to March 1998 leading to loss of interest of Rs.1.23 crore.

3.4.3.3 Failure to avail concessional duty/tax

(i) Non-availment of benefit in excise duty

(a) In August and September 1997 the Chief Engineer (Electrical) MM placed orders on M/s. Alsteel Industrials, Kollam for the supply of 70000 sets of GI 4 line and 132000 sets of GI 2 line Cross Arms with Bolt and Nut at the

rate of Rs.184.60 and Rs.100.85 per set respectively. The prices were inclusive of excise duty, sales tax and the supplies were to be completed by May 1998 with variation in statutory levies to the Board's account.

The party supplied 72700 sets of 2 line Cross Arms and 44000 sets of 4 Line Cross Arms by March 1998 and the excise duty included in the price was 15 *per cent* i.e. Rs.12.65 per set for 2 line and Rs.23.15 per set for 4 line Cross Arms. The remaining 59300 sets of 2 line and 26000 sets of 4 line Cross Arms were supplied during May 1998 to August 1998. Liquidated damages was levied for delayed supplies. The products were exempted (April 1998) from payment of excise duty. However, the party continued to charge the all inclusive prices which included excise duty also, without passing on the benefit of excise duty exemption to the Board. Failure of the Board to avail the 'nil' excise duty benefit resulted in excess payment of Rs.13.52 lakh

Documents for availing MODVAT credit not produced despite specific provision in the contract

(b) The Board had entered into (October 1994) a contract with M/s.Shri.Saravana Enterprises, Madurai for the fabrication, testing and delivery of high pressure pipes and specials* for their Poringalkuthu Left Bank Extension Scheme. The steel plates and other raw materials required for the work were supplied by the Board. As per the contract (Clause 3), all taxes and duties were to be reimbursed to the firm. But, the firm should adopt MODVAT system of paying central excise duty without any extra charge and the required documents for availing the benefit had to be furnished by the Board. However, in respect of penstock pipes and specials fabricated and delivered during the period January 1997 to April 1998, the Board did not make available the required documents for availing of MODVAT benefit and therefore had to reimburse Rs.11.46 lakh to the firm towards central excise duty remitted by it. Thus, the failure of the Board to furnish necessary documents for availing MODVAT credit for excise duty had resulted in avoidable extra expenditure of Rs.11.46 lakh.

(ii) Failure to avail concessional rate of Sales Tax

As per orders of Government of Kerala (November 1993/June 1995) the Board was eligible for concessional rate of 6 *per cent* sales tax on the purchases made from Indian Oil Corporation (IOC)/Cochin Refineries Limited (CRL). But it was observed that on the purchase of 2342.886 MT of bitumen from CRL/IOC during 1995-96 to 2000-01 at PC Store Angamally, the Board failed to avail the concessional rate and paid sales tax at the rate of 12.5 to 24 *per cent* instead of 6 *per cent*, resulting in avoidable payment of Rs.16.03 lakh.

* Specials are items like bends, bifurcation piece, expansion joints, etc., required for installation of penstock pipes

3.5 Inventory control

3.5.1 Procurement control

3.5.1.1 Stock levels

Stock levels represented even 71 months' requirement

Despite provisions in Chapter III of Part II of the Manual on Commercial Accounting System (Vol.II) the Board had not fixed any stock limit such as maximum, minimum or re-ordering level or economic order quantity in respect of any of the items so as to have effective control over procurement of the materials and avoid blocking up of funds in inventory. It was noticed in audit that the stock held against several items in Regional Store, Kundara and Aluva was excessive and represented even 18 months' and 52 months' requirement respectively during 1998-99 and 1999-2000 at Kundara and up to 23 months' and 71 months' at Aluva.

Excessive stock holding resulted in blocking of Rs.8.10 crore and interest loss of Rs.1.46 crore

Evidently the stock held was far more than what was required. The stock held (14 items) in excess of a reasonable level of 4 months requirement resulted in locking up of funds amounting to Rs.8.10 crore in the two Regional Stores at Kundara (Rs.3.40 crore) and Aluva (Rs.4.70 crore) resulting in loss of interest of Rs.1.46 crore during the two years ended 31 March 2000.

3.5.1.2 Non-availment of benefit of guarantee

In terms of tender conditions and purchase orders, the suppliers of various materials/equipment provided guarantee for satisfactory performance of the materials which was normally 18 months from the date of supply or 12 months from the date of commissioning. But it was observed that purchases were often made far ahead of actual requirement and the materials were idling either in the stores or at the site for years, beyond the period of guarantee. As a result the Board had lost the benefit of guarantee in respect of several valuable materials/equipment as discussed in paragraphs 3.5.2.1(ii) and 3.5.2.B.3 infra.

3.5.1.3 Inter Unit Transfer Accounts

During the course of stores transactions, materials are transferred from one store to another store falling under a different account rendering unit. Such transactions are booked under the Inter Unit Transfer Accounts (IUTA) and the balances in the Accounts are adjusted when details of receipt of materials are received from the transferee units. The table below provides the category-wise details of balances outstanding under IUTA for the four years ending 1999-2000:

(Rupees in crore)

Year	Balance as on 31 March under IUTA			Total stock			Percentage of IUTA balance to total stock		
	Construct- ion stores	Other stores	Total	Construct- ion stores	Other stores	Total	Construct- ion stores	Other stores	Total
1996-97	245.00	75.00	320.00	346.59	78.71	425.30	71	95	75
1997-98	280.00	70.00	350.00	414.89	82.16	497.05	67	85	70
1998-99	349.00	70.00	419.00	482.27	101.36	583.63	72	69	72
1999-2000	175.00	125.00	300.00	313.07	150.27	463.34	56	83	65

IUTA balances pending adjustment was 65 to 75 per cent of stock

The above details indicate that the balances pending adjustment under IUTA as at the end of each of the five years ranged between 65 and 75 per cent of the value of total stock held under each category. The heavy accumulation under the Account showed that there was absence of a system for timely reconciliation and adjustment of inter unit store transactions and the Board does not adequately ensure that the materials transferred actually reached the location and properly accounted for.

3.5.2 Store Management

3.5.2.1 Issue of materials

In respect of materials issued for Transmission Projects, the value of materials is debited to the projects at the time of issue itself. A test check of the transactions of Transmission Construction Circle, Thrissur revealed that the materials were being issued far ahead or in excess of the requirement and that adequate safety was not being provided to the materials leading to locking up of huge amounts, deterioration in quality, theft, etc., as indicated below :

(i) During the period from December 1994 to March 1996 eight numbers of 53.33 MVA 220/110/11 KV single phase Auto Transformers with accessories and spares valued at Rs.6.75 crore were purchased from M/s. GEC Alstom India Limited, Madras and issued for the construction of 220 KV Sub Station, Brahmapuram. For the belated supplies the Board had withheld an amount of Rs.23.70 lakh towards liquidated damages.

The transformers supplied at the site were lying idle till March 1998, when a joint verification conducted by the Board along with the representatives of suppliers revealed that a number of items have been stolen and various accessories were in damaged condition making the transformers unsuitable for erection without extensive repairs, replacement and overhauling. The repair work including the replacement of stolen parts was entrusted (February 1999) to the party for a lump sum payment of Rs.4 lakh in addition to release of the liquidated damages of Rs.23.70 lakh already withheld. After the repairs, the transformers could be commissioned only during November 1999 to July 2000 involving a delay of about 4 ½ years since their receipt.

Idling of transformers resulted in blocking up of Rs.6.75 crore and interest loss of Rs.5.42 crore

Thus on account of damages due to the prolonged storage and theft of various parts, the Board's funds worth Rs.6.75 crore remained idle which led to interest loss of Rs.5.42 crore for the period from March 1996 to November 1999. Further, the waiver of liquidated damages amounting to Rs.23.70 lakh lacked justification.

The value of the 13 items lost due to theft, reasons for the idling of the transformers for about two years, etc., called for in audit are awaited (August 2001).

Idling of funds in power transformers resulted in interest loss of Rs.0.71 crore and loss of benefit of guarantee

(ii) For the upgradation of the Kanjikode Substation from 66 KV to 110 KV, two 110/66 KV Power Transformers costing Rs.1.69 crore were purchased and issued in October 1996. However, the work for construction of yard structure was awarded only in February 1999 and the transformers erected in September 1999. Out of this one transformer was commissioned in July 2000 and another could not be commissioned so far (April 2001). Evidently the transformers were purchased and issued far ahead of the actual requirements. The idling of the transformers for 2 ½ years has resulted in interest loss of Rs.70.95 lakh, besides the loss of benefit of guarantee for satisfactory performance of 18 months from the date of supply.

Reasons for the delay in awarding the work of yard structure called for in audit are awaited (August 2001).

Benefit of reduced prices Rs.0.46 crore was lost due to procurement of transformers ahead of requirement

Further, by the time the transformers were actually required (February 1999) the per unit price of transformers came down from Rs.80.90 lakh to Rs.60.67 lakh. By procuring the transformers much ahead of requirement, the Board had lost the benefit of reduced prices amounting to Rs.46.27 lakh.

3.5.2.2 Materials- at- Site Account

Balances under MASA amounted to Rs.21.74 crore

The materials required for the distribution wing are issued from the Sub Regional stores to the Assistant Engineers of Sections for use against specific works and debited to their personal accounts under 'Materials-at-Site Account' (MASA) till the actual end use is determined. The Assistant Engineers are required to produce the consumption statements periodically or at least once in a month, when these accounts would be credited clearing the balance in the MASA. It was noticed in audit that the adjustment in such accounts were not being done regularly and the balance outstanding thereagainst as on 31 March 2000 amounted to Rs.21.74 crore. A test check of MASA revealed that;

(i) the stock of stores available with the Assistant Engineer as per MASA was not being physically verified despite specific stipulation to this effect in Section 3.7.2 of the Manual of the Board on Material Accounting.

33 sections depicted credit balance of Rs. 2.76 crore due to incorrect accountal under MASA

- (ii) the Board has not fixed the maximum level of stock to be held by the Assistant Engineer, so as to regulate the issues according to requirement and to exercise adequate control over the quantity of materials held in stock at field level. It was observed that in 67 substores the stock held as on 31 March 2000 varied between Rs. 0.16 lakh (Ranni) to Rs.1.04 crore (Contonment, Kollam)
- (iii) due to incorrect accounting of the value of consumption/non-accounting of the receipts of materials from other stores/units by Assistant Engineers, there were credit balances in MASA instead of debit balances. Out of 67 Sections test checked, 33 Sections showed a total credit balance of Rs.2.76 crore and due to this the balance under MASA did not always reflect the correct position.

The above position indicated inadequate control over the materials issued to the field and in identifying its end-use.

3.5.2.A Physical verification of stores

The Manual of Commercial Accounting System of the Board on Material Accounting prescribes continuous stock taking and periodical adjustment of quantity on the basis of physical verification reports. Though annual physical verification was being conducted at the store level, the physical verification reports were not analysed at head office and the Board was not aware of the consolidated position of shortages/excess. While the responsibility for the safe custody of store materials of the Board vests with the Store Keepers, a test check of transactions at TC Store, Angamally and Regional Store, Aluva revealed that in three instances, the responsibility for shortages detected in physical balance of stock amounting to Rs.25.95 lakh (Angamally), Rs.2.38 lakh and Rs.4.22 lakh (Aluva) was not fixed and recovery was yet to be effected even after a delay of seven to ten years.

3.5.2. B Obsolete/non-moving/slow-moving stores

As per Section 14 (Chapter I) of Part II of Manual of Commercial Accounting System of the Board, the Stores-in-charge in consultation with the user departments had to identify store items which were obsolete. However, the Board does not maintain the age-wise consolidated position of non-moving and slow-moving items of stores with a view to exercise proper control over inventory. A review of the records of Regional Store, Aluva, Transmission Circle Store, Angamally, PC Store, Angamally and Sub Regional Store, Transmission Construction Circle, Thrissur revealed that as on 31 March 2001, 2607 store items were lying idle without any issue or with a few issues, over a long period as indicated below :

Sl. no.	Name of store	No. of item	Amount (Rupees in lakh)	Year from which lying in store
1	T.C. Store, Angamally	34	224.92	1991-92
2	P.C. Store, Angamally	2459	15.65	1989-90
3	Regional Store, Aluva	98	15.31	1989-90
4	T.C.C. Store, Thrissur	16	54.25	1991-92
	Total	2607	310.13	

Obsolete and slow moving items amounted to Rs.3.10 crore in four stores

However, the Board was not reviewing and taking appropriate action for the effective and gainful utilisation of these materials in locations where these were actually required or to dispose of through sale. Abnormal delay in disposing of even the already survey reported items had been noticed as discussed in paragraph 3.5.2.B.2 infra. This had resulted in idling of valuable materials/equipment, blocking up of huge funds, deterioration in quality and loss of benefit of guarantee for satisfactory performance. Further, this has also resulted in blocking of valuable storage space and increased inventory carrying cost, the extra expenditure on account of which was not quantifiable. Certain specific instances noticed in audit are discussed below :

3.5.2.B.1 Idling of stock

(i) MS angles

The Board procured MS angles of various sizes for fabrication of Tower Parts by outside agencies. Consequent on the lock out of the fabricating firm, a quantity of 772.616 MT valued at Rs.1.34 crore procured prior to 1992 was lying idle at TC Store, Angamally and at Transmission Construction Circle, Thrissur (April 1994). A Committee constituted for the purpose of disposal of the scrap survey reported (May 2000) the items valued Rs.1.26 crore as non-usable. By that time, the materials had rusted and the value was assessed at Rs.99.69 lakh. The Board, however, failed to take any action and the materials remained to be disposed off (April 2001). The materials at Thrissur (Rs.8.04 lakh) have not been survey reported (April 2001).

Failure to use MS angles for 8 years resulted in blocking up of Rs.1.34 crore and loss of interest of Rs.1.69 crore

The non-utilisation of materials immediately after the closure of the fabricating firm resulted in blocking-up of Rs.1.34 crore and interest loss of Rs.1.69 crore for the period from April 1994 to March 2001.

(ii) Tower parts

a) Tower parts required for drawing 66 KV and 220 KV lines were being fabricated through M/s.TGK Industries and issued to the field for erection. However, due to lock out of the firm, the supply was stopped when there was a stock of 50.411 MT of parts (Rs.14.52 lakh) at TC Store, Angamally supplied prior to 1992 and 161.572 MT (Rs.46.21 lakh) supplied (1994) to Madakkathara Stores, which could not be used in the absence of matching parts. Instead of procuring the matching parts the Board resorted to purchase

of complete tower parts from firms like KEC International, L&T, etc., since 1994. This had resulted in idling of 211.983 MT Tower parts valued at Rs.60.73 lakh leading to interest loss of Rs.76.52 lakh for the period from April 1994 to March 2001. Besides, the quality of the materials had deteriorated due to prolonged storage in the open yard for over seven years.

b) During the period 1995-2000 the TC Store, Angamally purchased 9339.719 MT of various types of 110 KV/220 KV tower parts valued at Rs.27.71 crore and details of issues thereagainst and balance in stock as on 31 December 2000 were as shown below:

Items	Supplier	Period	Receipt	Issues	Balance quantity as on 31.12.2000	Value (Rupees in lakh)
			(In metric tonnes)			
a. 110 KV, D3, D 30 and D 60	KEC, SAE India Limited	7/95-1/97	8086.271	5089.035	2997.236	894.44
b. 220 KV, D 60, D 30, D 15 tower parts	KEL	9/96 -11/97	770.255	143.826	626.429	179.16
c. 220 KV tower parts	L&T	6/99	446.343	58.297	388.046	110.98
d. 220 KVH type	L&T	5/99 -8/99	36.850	-	36.850	10.32
Total			9339.719	5291.158	4048.561	1194.90

Large scale purchase of tower parts resulted in idling of funds worth Rs.11.95 crore and interest loss of Rs.8.33 crore

In respect of several items the issues were either nil or were in limited quantities leaving huge quantities still in stock indicating that the purchases were made either without any requirement or were made far in excess of the actual requirement. The large scale purchases and idling of the materials has resulted in blocking up of funds of Rs.11.95 crore for the last several years and interest loss of Rs.8.33 crore besides deterioration in quality of the materials due to keeping in open yard for a long period.

3.5.2.B.2 Delay in disposing of survey reported items

Out of 96 items (value: Rs.17.03 lakh) survey reported by the Board in the Regional Store, Aluva, 42 items valued at Rs.11.90 lakh were identified as unserviceable by a special committee constituted in April 2000. The unserviceable items were disposed of (January 2001) at Rs.13.58 lakh. However, it was noticed that these items were already survey reported in 1995 itself but were not disposed of for which no reasons were on record. By disposing of the unserviceable items in 1995 itself and realising the revenue earlier, loss of interest of Rs.12.22 lakh could have been avoided.

Similarly 2459 items (Rs.15.65 lakh) at the P.C. Store, Angamally were survey reported during 1993-94 for Rs.2.54 lakh but no action was taken to dispose of the items. Though a special committee constituted (April 2000) by the Board for disposal of scrap, again survey reported the items, these remained to be disposed of (August 2001). The Board has thus no system to

watch the timely disposal of scrap/action taken to comply with scrap survey committee's recommendations.

3.5.2.B.3 *Idling of materials procured for World Bank Project*

Large quantities of various high value materials/equipment worth Rs.15.71 crore procured for World Bank Projects were lying idle in the Transmission Construction Circle store, Thrissur either without issuing or with a few issues. These were lying idle since periods prior to 1990, value ranging from Rs.1.16 lakh (1 item 1995-96) to Rs.6.96 crore (7 items 1997-98).

Procurement of materials ahead of requirement resulted in interest loss of Rs.11.46 crore

Procurement of the above materials/equipment without proper assessment of requirement had resulted in interest loss of Rs.11.46 crore for the period from January 1990 to March 2001. Besides, the Board had lost the benefit of guarantee for satisfactory performance of these equipment as discussed below:

a) *Purchase of conductors*

Idling of materials valued at Rs.2.79 crore for 6 years resulted in interest loss of Rs.2.73 crore

The Board had procured 497 km of All Aluminium Alloy Conductor (AAAC) valued at Rs.2.44 crore during 1994-95, 28000 nos. of Tension Sets and 4460 nos. of Tail clamps (Rs.40.33 lakh) during May 1997. Though the materials were procured for improving the efficiency and bringing down losses in transmission system, none of the materials, except 4100 nos. of tension sets, have been issued so far (September 2001) resulting in idling of Rs.2.79 crore since procurement. The interest loss worked out to Rs.2.73 crore at the borrowing rate of 17/17.5 *per cent* per annum besides losing the benefit of guarantee, the period of which was only 18 months from the date of supply.

No reasons/justifications were available for procurement/idling of these conductors/tension sets/clamps.

b) *Purchase of Distribution Transformers*

Idling of 307 distribution transformers resulted in blocking up of Rs.3.97 crore and loss of interest of Rs.2.39 crore

Based on the purchase order placed (December 1994) by the Board the Transmission Construction Circle, Thrissur received 250 numbers each of 315 KVA indoor Type, 315 KVA outdoor Type and 500 KVA outdoor type distribution transformers during December 1994 to July 1997 from M/s KEL Mamala. Subsequently (March 1998) when a major portion of 668 transformers (out of 750 ordered) already received were in stock, the Board enhanced the quantity by 113 numbers (38 nos. of 500 KVA and 75 nos. of 315 KVA outdoor) based on an offer from the suppliers. Out of the total 863 transformers thus purchased, only 556 have been issued so far (April 2001) leaving a balance of 307 in stock. Evidently, purchase of the additional quantity of 113 transformers was not justified. The idling of 307 transformers had resulted in locking up of Rs.3.97 crore and resultant interest loss of Rs.2.39 crore at the rate of 17.5 *per cent* per annum. Further, guarantee for a period of 18 months' satisfactory performance from the date of supply had also expired.

3.6 Management information/control system

Chapter III of the Manual of Commercial Accounting System Vol. II of the Board prescribes furnishing of returns, reports and other information by various units to ensure the availability of materials in right quantities at the right time, to avoid locking up of funds in inventory and stock out situation, etc. However, there was no system to watch the periodical receipt of such returns from all the officers handling the stores. Further, there was also no record to show the manner in which the returns so received had been put to use. It was also noticed in audit that;

(i) there was no system of ABC analysis of stores in the Board to control the inventory on the basis of value.

(ii) the priced stores ledgers were not being maintained properly. There were mistakes in carry forward of balances, non-accounting of issues, etc., in P.C. Store, Angamally. In the absence of this, priced stores ledger balances were not being reconciled with financial ledger balances.

3.7 Advance to suppliers

Advances made to the suppliers/contractors amounting to Rs.54.43 crore were pending adjustment as on 31 March 2000. A test check of such advances at the P.C. Store, Angamally and Transmission Construction Circle Store, Thrissur revealed that the advances were not being adjusted promptly/correctly. Balances outstanding included amounts pertaining to periods as early as 1988-89 (P.C. Store, Angamally). Due to incorrect adjustments made in 'Advance to suppliers account' there were credit balances in this account. In the advance to suppliers account at Transmission Construction Circle Store, Thrissur there was a total credit balance of Rs.4.37 crore. In these circumstances the extent to which the materials have been received from suppliers and the amounts actually recoverable, etc., were not readily ascertainable.

There was credit balance of Rs.4.37 crore in advances account

The above matters were reported to the Board/Government in June 2001; their replies had not been received (August 2001).

Conclusion

Though the Board had devised a proper system of material management and inventory control by clearly laying down the procedure, documentation and control measures in the manual prescribed for the purpose, in practice these were not being properly implemented with the result that a system of inventory management is absent. The Board does not have a system of preparing detailed material budgets; but purchases were being made on the basis of an annual forecast. The purchases were made without proper assessment as to the stock on hand and the actual requirement, with the result many of the purchases made were far in

excess of requirement and quite often totally avoidable. Due to this, there was heavy accumulation in slow-moving/non-moving items of stock leading to blocking up of huge amounts and resultant interest loss. The system of maintenance of stock levels was not being followed on account of which materials actually required were often out of stock and those procured became excess and redundant. A system of value based analysis and control of inventory was absent. There was no system of physical verification of stores in respect of those items issued to field.

The Board has to take effective measures for scrupulously following the prescribed procedures and practices for Material Management and Inventory Control with a view to avoiding the huge accumulation in stock of Operation and Maintenance and capital stores. The procurement of capital items have to be co-ordinated with project/work requirement to avoid unnecessary blocking of funds for long periods due to indiscriminate purchases.