CHAPTER – VI
SUMMARY AND SUGGESTIONS

Material Management is one of the most important aspects of any public or private sector organisation, as they not only provide the base for purchased/finished product but also constitute a major share in the total cost of materials. Moreover, it will be much easier to reduce materials purchasing than to reduce materials issuing. Thus materials management in the power distribution unit is considered to be the key to organization prosperity.

Materials management in the power distribution unit offers a wide scope for reducing wastage, saving unnecessary expenditure on materials, conserving scarce materials, improving quality of purchasing and for increasing better services to the public. The successful and efficient functioning of any service sector organization like power distribution units depend to a large extent on the techniques adopted in the material management field.

In India, however, materials management has come to be recognised as an important field of management only in recent years. Consequently we find huge inventories in almost all Indian industries, particularly in power distributing organizations. While materials management has come to be recognised as an integrated activity in most of the advanced countries, in India, but for a few exceptions, the materials management functions are still considered as independent activities. The factors contributing for the slow development of
materials management are both internal and external. Internally, step-motherly treatment by the top management, lack of qualified and trained personnel in materials management field, lack of awareness about the utility of inventory control techniques etc., are some of the main reasons. Externally, paucity of indigenous and imported supply, lack of small industries for manufacture of small items, transport bottle-necks, delays in the release of foreign exchange and issue of import licenses etc., are some of the factors for huge inventory accumulation in Indian industries.

A review of literature on materials management revealed that research in the area, both at the unit-level and industry-level, was conspicuously absent. Even the few studies that are made in this field, lack depth and comprehensive coverage of various facets of the materials management problems. Meaningful studies on different aspects of materials management, both at the unit-level and the industry-level have to be still carried out. This study aims at bridging this gap to some extent.

The power distributing units in public sector occupied an important and crucial role in the economic development of the country. In view of the huge investment being required for this organization as well as its critical importance to the nation, this industry was mainly confined to the public sector. The present structure of the Indian state electricity boards owes its origin from the cumulative effect of the growing needs of the domestic, commercial, agriculture and small scale/ large scale industries. Thus, the origin of the electricity boards in India is
mainly due to the increased demand for public inputs on the one hand, and for industrial requirements on the other.

There has been a spectacular improvement in state electricity boards both in quantitative and qualitative services to the public during the last two decades. The fact that all the existing power distribution units in public sector have come into existence soon after the dawn of Independence shows the government’s keen interest on rapid development through decentralization of functions. The number of units under the banner of State Electricity Board group has slit in to six units during 1998. These are APGENCO, APTRANSCO and four distribution companies. All these are under control of Andhra Pradesh State Government. Among these APGENCO unit generates the power, APTRANSCO transmit the power from generation point to substation locations and the distribution units are distribute the power to the consumers.

The public sector heavy engineering industry has been helping a lot to achieve self-sufficiency in all fields by providing mother-machinery to various enterprises. It is a nucleus for economic development on account of its strategic importance to various fields. The industry has been contributing its mite towards i) industrial development, ii) attainment of self-reliance iii) accumulation of foreign exchange resources, iv) promotion of exports, v) promotion of employment, and vi) promotion of research and development.

Despite the above contribution, the industry is not free from its own problems. Since the last one decade, it has been suffering from raw material
crisis, power famine and transport bottle-necks. If these problems are allowed to luxuriate the future industrial development of the country will cripple at once.

Simhachalam Power Distribution, Visakhapatnam is one of the important power distributing units, and also the unit of the present study, came into existence as a power distribution sector in the public sector, under the APSEB, by operating its activities in the surroundings of Visakhapatnam city in the matter of power distributing to the consumers under its jurisdiction. The unit is mainly intended to take up power supply to all categories of consumers. The distributor has been in providing its services with most effective rate to its consumers by providing qualitative and unbreakable power supply. The contributing factors for the continual disturbances to the unit are: i) continuous shortage of power supply, ii) increase in the prices of raw materials without corresponding escalation clause, iii) heavy loses by natural calamities, iv) under-utilisation of capacity due to shortage of balancing power transmission, rigid inspection systems, etc., and, v) failures on the part of the customers in supplying their own materials in time.

An analysis of the purchasing performance of the power distributor during the period 2005-06 to 2009-10 reveals that the actual purchases is higher than the targeted utilization of materials in almost all the years, some of the reasons for which are: i) uncertainty of material requirements, ii) recurring power shortages in the region, iii) increase on the part of the new consumers, and iv) continuous shortage in the supply of materials from the suppliers. As a result of all these factors, the performance position of the distribution unit had been
struggling, and thereby making it necessary to relay excessively on external sources of materials, for which it has to pay more charges. Since the power distributor has been carrying on huge inventories compared to the APSEB norms, there is every need to study the materials management so as to identify and evaluate the factors responsible for its inventory accumulation.

It is true the materials management in a APTRANSCO is much more difficult than in a continuous process unit. Simhachalam Power Distribution unit being a heavy jobbing unit is in no way an exception to this. An analysis of the data relating to materials purchasing cost and total issues of materials throws light on the fact that the cost of the materials occupied a major share in the total income from revenue (bill payment by the consumers) which varied between 40 and 60 per cent during the period under study. In view of this, management of materials is an inevitable and essential task, as any marginal reduction in materials cost ultimately lowers the total revenue and, thus contributes highly to the profitability of the distributor. Moreover, it is revealed that the total inventory of the unit constitutes a major share in the total current assets (gross working capital) during all the years under study. Since the distributor has been highly service oriented, an efficient and effective management of materials would reduce the overall inventory levels, and thereby minimises the capital locked up in inventories which ultimately lowers the total commitments.

The Materials Management Department of the distributor is headed by the Chief Materials Manager, the reports directly to the Accounts Officer, and who, in
turn, is assisted by two Deputy Materials Managers each looking after Purchase, Stores and Materials Control Sections separately. The functions of the Chief Materials Manager are planning, procuring, and clearance of materials: formulation of procedures on receipt Storage and issue of various materials; ensuring timely availability of materials to production shops and ensuring disposal of surplus materials. Since the Accounts Officer is overburdened with all purchasing activities and a large portion of the organizations finances running into crores of rupees are locked up both in purchasing and storing the materials, it is suggested that the top executive should consider the possibility of placing the Chief Materials Manager directly under the Chief Executive, in view of the considerable cost reduction leverage in procurement operations.

The whole purchasing activity in Simhachalam Power Distributor Unit is centralised in the hands of the Chief Materials Manager under thorn there will be a Deputy Materials Manager for purchases who heads the entire Purchasing Section of the organization. Though the Company has been adopting different modes of purchasing viz., limited tenders, open tenders, single tenders, rate/running contracts, emergency purchases etc., a major portion of the purchasing activity of the Company is carried out through limited tender basis. Purchasing powers have been delegated to various persons at various echelons of management. It is observed that the existing delegation of powers to the Purchasing Section is inadequate, and requires review. For example the current powers allow for direct purchases only upto a limit of Rs. 950 without financial concurrence. In this process, a good amount of time is being wasted in
complying the procedural formalities in obtaining financial concurrence on trivial matters. It has been the common feeling that the limit should be raised atleast to Rs. 10,000, so that it will cut down unproductive paper work to a large extent, and also reflect on the reduction of administrative lead time. An evaluation of the purchasing performance of the distributor reveals that the percentage share of the demands covered by purchase orders in the total number of demands received for coverage is higher which pin-points the level of efficiency with which this section has been working during the period under study.

An insight into the development of ancillaries by the power distributor unit reveals that the unit has failed, by all means, in entrusting sufficient work-load to its ancillary units. The organization at present is having only 15 ancillaries as against 18 envisaged in the beginning. It is distressing to note that during the first year of functioning of these units, the organization was able to offload only between 10 and 15 per cent of the assured work of 50 per cent to these units. It is claimed by the ancillary units of the unit, that a major part of their profits is being eaten away by damages, due to delay in payments by the organization, which is taking a minimum of two months to make payments after submission of bills. Hence, it is suggested that, in the better interests of these units, the organization should clear the dues promptly within a maximum period of one month after submission of bills by the ancillaries.

Some of the systems and techniques adopted by the power distributor in the management of materials are, i) ABC analysis, ii) rationalised codification, iii)
standardisation and variety reduction etc. It is, however, informed that the progress accomplished by the company in respect of 'standardisation and variety reduction' is very limited. Although the management is of the view that ‘standardisation and variety reduction’ would not be possible in a fabrication shop in view of the stringent specifications, and multiple inspection agencies, efforts are to be made in this direction to the extent possible for deriving the benefits under such a scientific technique.

The stock verification systems of the power distribution unit appeared to be inadequate, considering the volume and variety of the stores hold. For obvious benefits, it is suggested that the stock verification cell, which is currently under the Internal Audit of Finance and Accounts Departments, may be strengthened. Hence, from this study and data analysis the following findings were derived.

The material management of the Simhachalam Power distributor regarding the LT materials shows that where there is necessary of materials the organization purchasing them whatever their cost maybe and the materials which are not /less utilization by the organization, they are not purchasing. During the period the utilization of Sφ ordinary and 3 wire cross arms materials shows at a decreasing growth rate in purchase and issue because of their less utilization during the study period. Whereas, the purchasing and utilization of the Sφ 4 wire and 5 wire cross arms materials shows at an increasing rate because of frequent
usage of these materials during the period but the growth rates of the purchasing cost of these two materials shows more than the purchasing of materials.

The material management of LT side arms with stut and LT shackles materials by the power distributor shows at an increasing rate in purchases and issues during the period and there is a significant growth in LT side arms purchasing cost and issues.

The purchasing and utilization of LT metal parts and LT pin insulators shows a significant difference between purchasing and issues and the growth rates in purchasing units and purchasing costs of these materials indicate higher than the issues of these two materials.

The material management regarding fuse units 15/16 amps and fuse units 30/32 amps materials shows at an increasing rate in purchasing items and cost of materials during the study period but the issues of these materials recorded a diminishing trends because of decrease in their utilization. In both the materials the cost of the materials indicates more growth rate than purchasing units where fuse units 15/16 amps growth rate found significant during the period. The purchasing and utilization of the fuse units 60/63 amps materials shows at a increasing rate in purchasing, cost and issues of materials during the period. The issues of these materials during the period show more significant than purchasing of items and cost of materials during the period.
The material management of different models of PVC service connection wire indicates a positive significant growth rate during the study period even though some types of wires record negative trends. The purchasing and utilization of PVC SC 4, 6, 10 SQMM model materials show at a significant growth rate in purchasing, cost and issuing during the period. This infers that every year there is a significant increase in the utilization of these service connection wires by the distributor. Like that the purchasing and utilization of GI 14 SWG wire also record an increasing growth rate in purchasing and cost but not same at issues during the period.

The data of PVC pipes and bends during the study period shows that the purchases and issues indicate very less growth rate and in some cases some models of materials issues found negative growth during the period. The material management of PVC 25 MM ‘U’ bends shows an increasing growth rate in purchasing and cost but very less at issues during the period. The material purchasing and its cost of PVC 32 MM ‘U’ bends and ‘L’ bends shows a stable growth rate but the issues of these two materials indicate a positive growth rate during the period.

The material management of 3φ energy meters 10 AMPS material shows a significant growth rate but in the case of 3φ L&T CT meter 5-10 AMPS purchasing shows negative growth rate whereas, the issues of this material indicate a positive growth rate during the period. The data analysis infers that during the study period the Sφ 5-30 AMP energy meters purchased, cost of
material and issues shows a highly significant growth rate but in the case of PVC tape rolls purchasing shows negative growth rate whereas, the purchasing cost and issues of this material indicate a positive growth rate during the period.

It is found from the data analysis that during the study period the PVC 25 SQMM cable purchased, cost and issues shows a significant growth rate but in the case of PVC 70 SQMM cable purchasing and its cost shows positive growth rate whereas, the issues of this material indicate a negative growth rate during the period. During the study period the PVC 95 SQMM cable purchasing and its cost indicate positive growth rate whereas, the issues of this material indicate a negative growth rate during the period.

The data analysis infers that the material management during the study period regarding Aluminum LUGS 50 & 70 MM model materials’ purchasing and its cost indicate positive growth rate whereas, the issues of these two materials shows negative growth rate during the period. The purchasing and cost of Aluminum LUGS 50 MM model materials is shows more growth than Aluminum LUGS 70 MM model materials during the period.

The analysis infers that most of the Aluminum LUGS models purchasing, its cost and issues indicate positive growth rate where, some of these materials issues show less growth rate than purchasing during the period.
During the study period it indicates that the GI 7/12 stay wire material purchasing, its cost and issues shows positive growth rate where, the issues of this materials found less growth rate than purchasing during the period.

The analysis infers that the "A" type boxes and GI energy meter boxes purchasing, its cost and issues indicate significant growth rate where, the issues of these two materials shows less growth rate than purchasing during the period.

The data during the study period shows that the TC fuse wire 14 & 16 SWG materials purchasing, its cost and issues indicate positive growth rate where, the purchasing materials and its cost shows more significant growth rate during the period.

The analysis shows that during the study period the PVC cleats purchasing, its cost and issues indicate negative growth rate because of the utilization of this material totally stopped. In the case of purchasing, the cost and issues of LT bushing rods during the study period shows positive trend.

The data indicates that during the study period the Bus bar boards purchasing, its cost and issues indicate negative growth rate whereas, the XLPE cable 3.5 core X 95 SQMM material purchasing, cost and issues of this material shows more significant growth rate during the period.

The material management of the 11KV materials found significant growth in purchasing, issues and cost of the items. In some types of materials it shows more significant in purchasing cost than issues and purchased materials.
The material management of GI 7/10 stay wire purchasing during the study period shows very less growth rate than purchasing cost but the issues of this materials found negative growth rate.

The analysis shows that during the study period the 11KV fuse sets (new type) purchasing material, cost of it and issues indicate positive growth rate, where issues trend found more. In the case of 11KV AB switch male contacts purchasing and cost during the period shows very less growth but the issues growth rate shows higher.

It is indicated that during the study period the 11KV AB switch female contacts purchasing material, cost of it and issues indicate positive trend, where issues growth rate found more. In the case of 11KV/433V transformer (100 KVA) purchasing, cost and issues during the period shows positive growth.

During the study period it shows that the 11KV transformer OIL purchasing, cost and issues indicate significant growth rate, where the cost of the material found more growth rate. In the case of Transformer LT side balls purchasing and cost of it during the period shows positive growth but the issues found negative trend.

The data shows that during the study period the MS Cleaters purchased and cost of material indicate negative trend but the issues found positive growth rate. In the case of 11KV taping cross arms material purchasing, cost and issues during the period shows a significant growth rate.
During the study period the 11 KV "T" joint cross arms purchased, cost and issues of material indicate positive significant trends. In the case of 11 KV horizontal cross arms material purchasing shows stable, cost of material shows positive growth and issues found negative trend during the period.

The analysis indicates that the MS Back clamps and MS stay sets purchased, cost and issues of material during the study period shows positive trends where, the cost of both the materials found more significant growth than purchases and issues.

The MS stay clamps purchased, cost and issues of material during the study period shows positive trends where, the cost of the materials found more significant growth than purchases and issues.

The material management of the study power distributor indicates that during the study period the RCC 9 MTS poles purchased, cost and issues of material shows highly negative trends. In the case of RCC base plates purchasing and cost of materials shows positive growth rate but the issues found negative trend during the period.

Regarding the street light materials the data analysis infers that during the study period the rubber hand gloves purchased, cost and issues of material shows positive growth rate. Whereas, 4 feet tube lights purchasing and cost of materials shows negative trend but the issues found positive growth during the period.
The analysis shows that during the study period the 40wts chocks and tube light holders purchased and cost indicate negative trends but the issues of both the materials found significant growth rate. And the starters and cells purchased, cost and issues shows positive growth rate during the study period.

The material management of the selected power distributors shows that the MS 5/8x"3" & 5/8x"4" bolts & nuts purchased, cost and issues shows positive growth rate where the cost of the materials found more trends during the study period. The MS 5/8x"6" bolts & nuts purchased, cost and issues shows positive significant growth rate. In the case of MS 5/8x"7" bolts & nuts the purchases show negative trend but the cost and issues of the materials found positive growth rate during the study period.

The data analysis shows that the MS 5/8x"8" & 5/8x"9" bolts & nuts purchased, cost of purchase and issues of materials shows positive growth rate during the study period. In both the case of the purchasing cost shows high trends than purchasing items and issuing items during the period, where issues of MS 5/8x"9" nuts and bolts indicate negative growth rate. There is no much difference between purchasing and utilization of M S 5/8x"10" bolts & nuts during the period but in the case of line man safety kits there is a negative trend found at issues.

The purchasing and utilization of the above two models of the PSCC electrical poles found almost same. There is no much difference between purchasing and issues of these materials.
Conspicuously, it is seen that most of the personnel working in the Materials Management Department do not possess any technical qualification or background. But, in contrast, in other public sector undertakings like NTPC, Power Grid., it is observed that most of the personnel in Materials Management Department are technically qualified. Technical background is very essential in the Materials Management Department not only to have a thorough knowledge of the various specifications, but also to take on-the-spot decisions for materials substitution in case the originally specified material, is not available in the market. The management of the Company may therefore take steps to reinforce the department with some technically qualified persons.

It is also observed that no provision has been made for a self-checking digit which is of immense benefit in a computer-based system of inventory accounting and control. Self-checking digits are particularly worthwhile on codes that exceed seven digits. Since the company is adopting a ten digit code, it should examine the possibility of introducing a self-checking digit in consultation with the Manager (Data Processing).

It is surprising to note that the purchasing systems of all the public sector Electricity units including Power Distributors are fraught with several rules and procedures not for the purpose of aiding and achieving better results but only for minimizing the unethical practices of purchasing officials in discharge of their duties. Moreover, it is observed that a very low financial limit is fixed to orders which can be released without financial concurrence. As a result, more often than
not, the Finance Department cannot appreciate the factors, such as urgency of requirements, vendors' credence, etc., and gives high priority for procedural formalities. Moreover, it is observed that limited powers were given to the people at the lower echelons of the purchasing sections. Consequently, all files axe to be submitted to their immediate superiors for their approval which results in long administrative lead time.

It is, therefore, suggested that the power distributor should launch a programme of 'Value Engineering' and designing of its equipment in view of the severe competition in production industry. A cell with the representatives from Design, production Planning, Commercial and Materials Departments may be constituted for this purpose. Similarly, to have an effective exercise in regard to vendor rating, it is suggested that a 'market research cell' may be constituted under the Chief Materials Manager which inter alia would perform the following functions.

i) Preparation of vendors list,

ii) Maintenance of catalogue,

iii) Maintenance of specifications,

iv) Compilation of the list of indigenous foreign manufacturers,

v) Determination of the vendor performance,

vi) Maintenance of the trend of delivery period and

vii) Maintenance of statistics of purchases made by purchasing section.
Since the Company has not published the materials management manual so far, it is suggested that the management may take up publishing a manual or priority basic. In the absence of such a manual, the objective of the management and detailed procedure to be followed cannot be communicated down to the line.

A survey of various personnel in the area of materials management both in Simhachalam Power Distributor and other power distributing units of the public sector revealed that non-availability of materials, both indigenous and imported in time is a major constraint contributing for shortfalls in production frequently. They have also expressed some of the external factors such as transport bottle-necks, unprecedented power-cuts, government regulations and policies in regard to importing materials, etc., which are also responsible for poor inventory management.

In order to mitigate the effect of the above factors on inventory accumulation, procedural improvements may be carried out in the arena of materials management, both at the unit-level and the national level. At the unit-level, all the enterprises should have to maintain a separate integrated materials management department which should be placed under the direct control of top executive of the undertaking. Only qualified, talented, technical and trained personnel should be appointed in various positions of the materials management department. In order to cut down the administrative lead time which is higher in these concerns, purchasing procedures should be simplified by delegating adequate executive/ financial powers to the purchasing people. The present
system of procuring steel material through canalised institutions should be dispensed with and these units should be permitted to obtain these materials directly from the foreign suppliers.

From a comparative analysis, it is found that the share of materials purchased in the total issue of materials has varied between 25 per cent and 45 per cent in sample Power Distribution Unit during the period of study. Moreover, inventories of these units constituted a predominant share in the total current purchasing during the period. Hence, materials management assumes a great importance to these units. It is further found that the value of inventories held by Simhachalam Power Distribution Unit both in absolute and relative terms, stands in between that of APTRANSCO and AP Power Distributors, the two major units in public sector of APSEB. The higher volume of inventories in Simhachalam Power Distribution Unit and AP Power Distributors are due to the fact that these units have more than one under the management of APPSEB.

An analysis of growth of inventories, purchase and issues (utilization) in Simhachalam Power Distribution Unit and those of Power Distributors of Andhra Pradesh put together revealed that the rise in the volume of inventories in Simhachalam Power Distribution Unit and Electricity Board has taken place due to increase in total purchase and utilization of materials in these units in almost all the years.

It is found that the total inventory of Simhachalam Power Distribution Unit in terms of cost of purchasing has gradually gone up from 10 to 40 percent
during the five years, and it registered a increasing trend. The increased tempo of utilization activity on account of better services to the public is one of the responsible factors for this situation. Moreover, the systems and procedures adopted by the organization during this period in the materials management area are found to be perfect. Though its inventory in terms of number of items purchased has declined in the latter half of the period under study, it is still on the higher side compared to that of other units. However, it is very clear that its inventory in terms of number of issuing items is less compared to the number of purchased items. The reasons for huge inventory in Simhachalam Power Distribution Unit are that the unit is bigger in size covered area and a wide industrialized.

It is observed that though the value of accumulated excess inventories in relation to cost of materials held by Simhachalam Power Distribution Unit have come down marginally, they are still on the higher side considering the norm of 6 months cost of production suggested by APSEB. The reduction in the value of excess inventories of Simhachalam Power Distribution Unit can be attributed to the growing inventory consciousness among the individual units on the one hand and constant vigilance and control exercised by State Electricity Board by undertaking unit-level studies on inventory systems in these units on the other. It is found that if the purchases of Simhachalam Power Distribution Unit could have been reduced to six months’ cost of materials.
A analysis of the value of excess purchase in Simhachalam Power Distribution Unit reveal that the magnitude of decline in the value of excess purchase is more in the case of unnecessary materials which are not used at current situation.

An analysis of structure of the purchasing and issuing of regular materials in power distributing unit revealed that the percentage share of materials issued, and materials purchased in the total inventory of Simhachalam Power Distribution Unit has been the highest compared to all other units of the power distributors in this group during the period under study.

However, in spite of the greater improvement in the area of purchase reduction of unnecessary materials, the inventory under this head, when seen in terms of annual utilisation, is still on the higher side in all the years in the unit.

From the above analysis, it can be seen that the overall purchasing performance of Simhachalam Power Distribution Unit is considerably better in the State Power Distribution Units. It is surprising to note that purchasing accumulation is more in Simhachalam Power Distribution Unit. This confirms the fact that the extent of the size of purchases of materials alone is not the influencing factor, but other factors such as the sine of the unit, type of the products manufactured, extent of the market for the products, nature of the competition etc., also determine the profitability performance of the concern. In spite of this, the importance of scientific materials management can hardly be ignored, It is also evident that though over-stocking prevailed in the earlier years
in each and every inventory component in all electricity distribution units in general and Simhachalam Power Distribution Unit in particular, it has come down in almost all units during the subsequent years of the period under study.

Since its inception, Simhachalam Power Distribution Unit has been confronting with several problems in the area of materials management. To name a few, they are: i) delay on the part of the suppliers in supplying the materials, ii) existence and disposal of surplus and non-utilising items, iii) excessive lead time, and iv) excessive dependence on imports. In a jobbing industry, it is a common practice for the customers to supply certain critical materials as free issues. However, in case of delays in supply of such critical items by the supplier, there is a temporary set-back in the overall utilization of materials and components till the required material which is holding up such jobs, is received. Such delays obviously result in either higher stock levels or inflated work-in-progress, although temporary. While the practice of accepting suppliers' free issues is welcoming as it saves considerable strains of the purchase section in procurement of the same it is observed that prompt returning and accountable of such free issues pose very serious problems, and in a number of cases, the customers are withholding the payments till their issues are finally settled. It is found that the delay on the part of the suppliers in supplying critical items has materially affected the performance of the power distributor several times which resulted in the slippages in the achievement of service targets added to this, there also exists another problems with regards to the supporting documents like test certificates, which are very essential for the purpose of inspection of these
materials. It is, therefore, suggested that where the free issues are delayed by the customers, the company should offer the same from their existing stocks if available. Even if the exact materials are not available, alternative acceptable material should be used in order to minimise the total idle time and to maximise the utilisation of existing alternative methods. Moreover, for this purpose it is necessary that at the earliest stage of raw materials planning, a thorough assessment should be made by the Materials Control Section of the availability of left over raw materials from completed sale orders on the one hand and the quantities to be procured by APSEB as also to be supplied by the suppliers on the other. Moreover, periodical pre-production review meetings should be arranged by management to have an effective and close coordination between the Materials Management Department and the Administration Department.

A major portion of the organization’s finances have been locked up in the form of surplus and non-moving items. Though the reasons for these surplus and non-moving items were varied, the most important reason for a continual presence of surplus stores and spares in the organization is related to the absence of satisfactory system regarding their disposal. An analysis of the data in the regard shows that raw materials form a major part in the total value of the non-moving items during the period under study followed by bought-out-components and Spares.

It is, however, found that there has been a gradual decline in the value of surplus and non-moving items during the period under study partly due to
increase in the disposal activity of non-moving and surplus items from year to year and partly due to finding use for the existing surplus and non-moving materials in executing the other sale/work orders. Added to this departments are being pressed and compelled in some cases to use the non-moving items as substitutes for the moving items.

**Academic Research Stock of Knowledge**

This study has identified certain defects in the purchase methods, replacement expansion and maintenance. Appropriate implementation strategy has been recommended. This is the major contribution of the study.

1. Basic Knowledge of the Stock Market
2. Basic Stock Market Knowledge
3. Common Stock of Knowledge

Material Management's scope is vast. Its sub functions include Materials planning and control, Purchasing, Stores and Inventory Management besides others. The various activities represent these four functions:

1. Planning and control
2. Purchasing
3. Value analysis and
4. Physical distribution
Suggestions

The management should constitute from time to time, special committees to examine meticulously the non-moving items with a view to analyze the reasons for their build-up on the one hand, and to declare surplus Items not needed so that disposal action on these items can be initiated immediately. Once the extent of surplus is decided, no time should be lost in disposing off the same. It would sometimes be worthwhile to dispose off the surplus materials even at a loss if the costs involved in carrying these materials are higher than the loss it may incur, if the management decides to dispose off these materials.

It is found that a major portion of free stocks exist under some of the important items. The progress made by the unit in the field of disposal of surplus materials is not satisfactory. One of the reasons for this is the unremunerative prices which the unit has been getting for certain types of its surplus materials, in the case of RCC poles, for example, the organization has disposed off the same even at a price less then their book value in order to minimise the inventory carrying cost and also to unlock the capital tied-up with inventories. Moreover the distributor has struggled a lot for a long time in obtaining the permission from the Chief Executives of stores for disposing off its surplus imported materials to the private parties.

In view of the increasing importance of conservation and proper utilisation of materials, the systems of release of material indents and cutting diagrams, etc., have to be reviewed. It is felt that one of the reasons for increased
accumulation of inventory may be due to stock-filing of off-cuts. It is therefore, necessary that while releasing the cutting diagrams by the Design Section, they should invariably keep in mind the plate from which, the part is to be cut and while in actual execution, it should be physically verified by the concerned officer whether the same plate identified in the cutting diagram is used. In the absence of such physical check-up of plate-cutting, there would be a natural tendency to cut from the good plates, instead of using the available off-cuts economically. The off-cuts as per the present system in vogue are valued at the full rates. Hence, non-utilisation of such off-cuts in proper time would lead to heavy losses, as the same may have to be sold as scrap. In view of the heavy financial implications. The management should pay due attention to the conservative utilisation of off-cuts.

It is found that the administrative and procurement lead times of the company are higher due to the peculiar nature of the industry. The administrative lead time consists of raising the material requisition, printing the materials indent by the computer, releasing the material indent, calling for tenders, preparation of comparative statements, obtaining financial concurrence and placing the purchase order. The time involved at each and every stage is relatively higher. For example, it is observed that often the input data for materials requisition and bill of materials are sent to Electronic Data Processing Centre, printing of the same and issuing the final material indent is taking on an average four to five weeks. Hence, the should take continuous efforts to cut down the length of time involved at each and every stage. The administrative lead time am be reduced by
relaxing some of the procedural formalities inherent in the process of converting the material requisition into purchase order. For this purpose, the purchase procedure should be liberalized giving adequate executive/financial powers to the personnel in the Purchasing Section. Moreover, where regular and dependable sources of supply are already established, orders should be placed directly without resorting to invitation to tenders.

To reduce the procurement lead time, the management should consider the possibility of opening a liaison office in various countries. In case it is not possible, the services of foreign agents may at least be used to expedite the foreign supplies. Though the procurement lead time is outside the management control, the management should endeavour to reduce the same by strengthening the progressing cell of the purchasing section.

Since a major portion of the materials is presently supplied by the Central Purchasing Committee, efforts for gradual indigenisation should be taken. For this purpose, the management should consider the possibility of utilizing the existing ancillaries or new ancillaries to the maximum extent specifically for developmental work/import substitution, by rendering both economic and technical help to them. A suitable system/ programme should be chalked out for trying indigenously manufactured items in the place of imported items by educating the major indigenous suppliers. Though it may cost initially to the organisation, it will prove to beneficial in the long run.
Since considerable savings can be effected by such indigenisation, an indigenisation cell should be created under the Chief Engineer (Research and Development) to that the entire efforts towards import substitution could be centrally controlled and directed, with the assistance of technical officers in different divisions.

An analysis of the inventories vis-à-vis SEB norms reveals that inventory accumulation was relatively higher in the beginning of the period under study for almost all the categories, as compared to the later part of the period. This indicates that the power distributor, having realised the adverse effects of such huge accumulations, has drawn a systematic plan on the lines suggested by the SEB Committee on Inventory Control for reduction of its stocks. This study further indicates that notwithstanding the gradual decline of the inventories, they are still on the higher side compared to the norms, suggested by SEB Committee on inventory Control.

Keeping in view the norms suggested by the SEB Committee on Inventory Control, an attempt has been made to study the various categories of inventory in Simhachalam Power Distribution Company.

With a view to have regular power interruptions, there is an urgent and imperative need for streamlining the distribution procedures and to expedite dispatches by advance planning, regular reviewing and progressing the suppliers of matching components. Efforts should be made in future contracts to have some penalty clause for delay in acceptance of the equipment by the receiving
party. Incentives for receiving the completed equipment and paying in time should be provided in the sale contract by way of cash discount. However, efforts are being made by the Company to reduce the finished goods inventory by stepping up the rate of dispatches of the equipment and by finding suitable customers for the cryogenic items manufactured on stock account.

Thus, this study of structure and salient features of the materials management in Simhachalam Power Distribution Company throws light on some of the weaknesses inherent in the area of materials management.

The suggestions made in this study although are by no means exhaustive, they are expected to improve the efficiency of the materials management not only in Simhachalam Power Distribution Company but also in other public sector distribution units.