Chapter-III

Stores Organization and Quality Control

- Stores Organization
- Procedures Followed in Respect of Materials
- Quality Control
In this chapter, the researcher tries to explain and analyse the importance of stores location, organizational structure, procedures followed in respect of receipt of materials and quality control.

Actual procurement, storage and preservation activities form the last link in the material management process. Quality Control of raw materials, storage of materials, parts and supplies are an integral part of the process by which the supply department maintains a non-stop flow of the items maintained from the points of supply from outside the organization to their points of usage in the organization.

The stores management plays a crucial role in smooth running of an organization. The purpose of the stores is to provide uninterrupted material flow to the work-sights of the various departments in the organization. By this, one can understand that the stores is not just a dumping yard but an important element of the economy of the business organization.

Reorganising the significance of stores in majority of industrial firms in the United States of America, receiving and stores departments are attached either to the purchase department or lumped it along with procurement and other related activities in the materials management department.

In the history, we come across names like ‘Kothari’, ‘Bhandari’ which were derived from the nature of work such families have been dealing with, like stocking and controlling goods and material (Gopala Krishnan. P, and Shandilya. M.S.,
Store keeping involves the receipt, storing and issue of materials, concerned with the physical handling and well being of stocks (Anantha Krishna V, 1972). Storage means holding in custody of all kinds of stores and materials including spare parts, components, semi-processed and finished products. This was put forth by Institute of Costs and Works Accountants of India.

Stores management assumes greater importance in the Indian context because of the stiff supply positions of materials. It is a known fact that majority of the industrial undertakings in India are maintaining four to six months’ inventories. For certain imported items, it is as high as 24 months. Thus, the stores department is responsible for the receipt, identification, and general inspection, keeping an eye on the levels of the stock for the replenishment purpose and of all the incoming materials. Besides these responsibilities, the stores department is also responsible for safe storage of all work-in-progress, production materials, maintenance material and other repair items. In some organizations, the store is responsible for the finished goods storage also. But, however, in ship building industry, after the delivery of store items to the user departments and making an entry to this effect in Electronic Data Processing (EDP) and ledger, the stores department’s responsibility automatically ceases. The stores department must protect the materials in its custody against pilferage, unwanted drawings, unauthorized drawings, damage and deterioration.
For easy identification, the stores personnel need to classify the items into various categories and attach the materials with some codes *i.e.* codification and assign some marks to all the materials in a manner which facilitates ready accessibility. Last but not the least, the stores must control the issuance of the material in a way that provides effective services for the production operations. The responsibilities of the stores are:

(a) The receipt of equipment, raw material, tools, spare parts, components, greases, and other items and verify them against the purchase order placed with the supplier by the organization and account for the said items.

(b) Arrange the received items at appropriate places, proper storage and preservation of the items in accordance with their nature, usage, value and importance.

(c) To meet the needs of the consuming department, by proper issuing procedures and account for the consumption.

(d) To help in verification and provide supporting data for effective purchase action.

(e) To make higher ups aware of discrepancies, if any, like abnormal consumption and accumulation of stock.

(f) To help in minimizing surpluses, obsolescence and scrap through appropriate codification, preservation and handling.
(g) To maintain clean and tidy store place, so that the material receipts, preservation, stocking and issue can be done easily without any difficulty.

The stores location and layout have a bearing on the organizational effectiveness. The general practice is that the stores should be located in the proximity of the user departments so as to minimize transportation and other handling expenditure and to ensure timely supply of the necessary material to the consuming departments/work places. In fixing the location of the stores, its size and design etc., various determinants should be taken care of by the industrial organizations. The determinants include nature of industry, size and volume of transactions, type and value of stocks, volume of stock to be held, handling, re-handling and transport costs, security, safety requirements, statutory obligations etc.

While planning the layout of the stores, the government criteria would be free flow of materials, optimum utilization of storage space sufficient space for material, men and handling equipment and proper usage of equipment in stores such as racks, pallets, shelves and preservation against light, rain and temperature. Besides these factors, some other factors like number of users and their location, the variety and volume of goods to be handled, the distance from the central receiving station and the accessibility of transportation are to be taken into account. The stores block must have adequate light, ventilation, air circulation facility, air conditioning, heating equipment, if necessary, which
should be planned well in advance before construction of the stores. Besides these, in order to get the maximum work from stores personnel, it is necessary to create well working conditions.

Besides size, organization needs to consider its activity, size of stock items, volume of transactions, kind of stock, the minimum and maximum size of stock of each item to be held at any point of time, of warehousing (carrying cost), transport, handling costs and re-handling costs, statutory obligations like cold storage and controlled temperate zones, insulated storage and finally, safety and security requirements. In stores layout, space for material, men, material handling equipment and appropriate allocation of storage space for furniture such as shelves, racks and pallets is required. It is the responsibility of the management to adopt scientific measures for proper preservation of the material against light, rain, fire and other such elements. In addition to the above mentioned factors, the number of users and their location, the variety and volume of items to be used and handled, the location of the initial receiving and accessibility to the modes of transportation are of great importance in drawing the layout of the stores organization. As the stores and sub-stores have to be built nearer to the user departments, larger organizations usually have so many sub-stores attached to each consuming department. Whereas, receiving of materials is done at the central receiving stores. The stores block must have necessary and adequate facilities such as heating equipment, cold storage, and other facilities, which should be planned well in advance while
constructing the storage building. To get optimum efficiency from the stores personnel, proper facilities within the stores and necessary working conditions must be provided while planning the stores layout. The shipbuilding industry is basically an assembling industry, which procures some thousands of various items and equipment. These items and equipment must be stored and maintained by the stores until the materials of different kinds with different sizes and designs are issued to the various departments. Adequate attention is to be paid for stores items and equipment procured from aboard for easy identification and for easy location. Certain items do not contribute directly to the construction of ship. But these items have a bearing on the smooth functioning of the industrial organization. These general items include vegetables, edible oil, soaps, linen, electrical bulbs and fittings, medicines, first aid peripherals, clothing, shoes, safety kits, fire extinguishers etc. Certain other items go directly into the construction of the ship. They include steel bars, steel sheets, brass, copper and all items of wood, interior decoration items, engine items, hull items, deck items. D.G. Set items etc. Preservation of these items and their delivery at an appropriate time as demanded by the user department is of utmost significance. The timely delivery of items from stores to the user department is possible only when the stores layout is well-planned and enables the stores organization for the quick delivery of the materials to the end user departments. The stores organization of shipyard companies limited is given in chart 3.1.
Stores Organization

The stores organization in all the shipyard companies is headed by an officer-in-charge (stores) and he is responsible directly to General Manager (Commercial). The General Manager,
(Commercial department), in turn, is responsible for Chairman-cum-Managing Director and at the apex level there is a team of Board of Directors. Under officer-in-charge (stores), there are three different sections. Each one is responsible to discharge certain responsibilities pertaining to stores organization. Section-in-charge (I) is responsible for material receipts, preservation, warehousing, distribution, inventory control, disposal of general stock and capital items. Section-in-charge (II) is responsible for interfacing with purchase section and planning department and Electronic Data Processing section and this section-in-charge is also responsible for computerization of stores. Section-in-charge (III) is responsible for the project items which includes hull, electrical and engineering items. Totally, there are five officers in the stores organization including the officer-in-charge, three dealing officers who are also the section-in-charges of the stores and one liaison officer and are assisted by 58 storekeepers and equal number of stores attendants. About 85 mazdoors are engaged in the stores organization to provide continuous and uninterrupted flow of supply of materials to various user departments. It is the responsibility of the stores section for proper receipts, storage, handling, issue of materials and accepting of in-coming and out-going materials and arrangement of materials for inspection and quality control. The stores section also provides necessary information to General Manager (Commercial) on matters like inventory levels, control and requirements. In all the selected shipyard companies, the disposal of ferrous and non-ferrous,
wood and steel, and other project items and the capital budget items are now supervised by the stores section. The stores section, through one section-in-charge is looking after computerization of stores and Electronic Data Processing. The stores section in all the selected shipyard companies is expected to despatch the material as and when the user departments want them.

In reality, it was observed that whenever the stores section received any material requisition notes, it will take four to five hours to locate the items demanded by the user departments in its material requisition notes. Only in the recent past, with computerization of the stores, it is possible to know whether the item is there or not. Earlier, it would have been highly difficult without computerization to draw the material by the user departments. This kind of situation can be managed very well with codification and standardisation. In all the selected shipyard companies, the stores section has been adopting the scientific codification and standardization systems. It reduces this long time of identification and thereby, the availability of the material to all the concerned user departments is instant without any delay.

**Procedures Followed in Respect of Materials**

Basing on the orders received from the customers, the corporate planning department suggests the commercial department to initiate steps to procure the necessary material and equipment required by the ship, which is going to be constructed
by the company. Here starts the combined work of the commercial
department, purchase section and stores organization. Any
organization, which purchases materials, find it impracticable and
undesirable to bin or rack the goods as soon as they are received.
It is desirable to allot a specific space at the stores where materials
are received and inspected for quality and quantity *viz-à-viz*
purchase orders placed to ensure that they are suited to the
requirements and that they fulfil the terms and conditions of the
order. Material purchased, as per the unique specification,
invariably have many features that are subjected to inspection.
The sizeable number of items purchased by industrial firm does
require technical inspection. This should be done on a regular
basis for two compelling reasons. Firstly, it provides the
qualitative measurement of supplier’s quality performance, which
among other uses is essential to the development of an effective
supplier evaluation programme. Secondly, this kind of checks
helps to have a sound business practice. Efficient receipt of
material procedure reduces the lead-time and helps in effective
inventory control. To have a close watch of the incoming material
as far as possible, the receipt section and inspection department
should be located closely to the entry point. This avoids
unauthorized entry of persons deep into the stores. Also, there
will be no mix up of incoming and outgoing consignments. The
size and type of stores organization that is needed for receipt and
inspection depend on the quantum of the stores items and other
stores activities. A big undertaking requires several officers at
different levels and supporting clerical staff in abundant and whereas a relatively small unit requires only one or two people to discharge the duties of receiving the material and inspection. Basically there are two types of organizations for receipt and inspection, they are centralized and decentralized. In centralized receipt of inspection organization, all material is routed through a central receipt and inspection department located in the main stores. Instead of locating individual reception department in each plant and stores, a central reception section must work in the main stores organization for an effective reception of the incoming materials. As against the centralized reception section, some organizations establish independent reception section in each of their stores located in each plant, work place and even if the plants are located at the same premises. Then reception work is to be carried out at each point, which ultimately necessitates to have more number of people to carry out the job of receiving the materials. This, in turn, increases the salary budget of the organizations and, finally, it results in poor earnings.

The incoming material supplied by suppliers is verified with the help of purchase order. The materials will be sent to the concerned stores department soon after the verification is completed. If there is any discrepancy between the terms specified in purchase order and the incoming materials as to quality and quantity, the materials will be kept in abeyance till the supplier rectifies the discrepancy. Before delivering the material to the concerned stores, the items are recorded in the stores ledger.
Simultaneously, data relating to the incoming materials are fed to the computer. The concerned stores department after receiving the material will prepare goods receipt notes (GRN), the proforma of which is presented in Appendix-I. The stores personnel issues the materials to the concerned shop floor departments on receipt of material requisition note (MRN), a proforma of which is presented in Appendix-II. Materials requisitioned are entered into the ledger and posted in the terminals of electronic data processing (EDP) for cross verification. In order to identify stock levels (minimum, maximum, and reorder levels), the materials in the selected shipyard companies are broadly classified into:

1. Project items
2. Capital Budget items
3. General items.

Project items consist of machinery used for fitting to the ship. Capital Budget items include the machinery used by the shipyard. General items comprise all other materials such as nuts, bolts, clothing, electrical items, plumbing items, pipes, colours, etc.

Quality assurance department verifies the quality of project items. Capital Budget items are verified by the commercial department as well as quality control department. The concerned customer will verify all other general items. Sometimes, the buyer of the ship entrusts the task of the Quality control societies. The task of quality control in case of naval vessels rests with Directorate of Quality Assurance (WP).
All the receipts of the materials are subject to the quality check either by the stores organization or quality Assurance department of all the selected shipyard companies and or by the representatives of the buyers of the ships viz., Quality control societies. If any deviation was observed by all the selected shipyard companies against the agreed terms and conditions of supply, the materials will be rejected scrupulously. The deviations might be time, price, quality, quantity and transit charges etc., Non-compliance over terms will automatically gives a right to the management to reject the whole consignment or part thereof. In this case, all the selected shipyard companies having a practice of informing the rejection of the consignment to the supplier within 15 days from the date of the receipt of the materials. The materials so rejected on various grounds are listed by the concerned officer with the help of his subordinates who are in-charge of receiving the incoming materials. They prepare a note on the materials with the quality and quantity and present the same note to the General Manager (Commercial) within three days from the date of the receipt of the materials.

Then, the General Manager (Commercial) authorizes to pass on message to the concerned parties and requesting them to fulfil the deviations found for the supplies they made. Due to decentralization the stores in the premises of all the shipyard companies, they found it difficult to receive the materials at various stores located at different places which are away from two to five kms from the selected shipyard companies. Eventually,
location of stores at different places give rise to certain problems like transportation, poor delivery to work spots, communication problems from the main stores and other stores located outside the premises of selected shipyard companies.

In order to avoid the incurrence of transportation cost of the materials, which is now being received from a distant stores of stock yards, need to be established within the selected shipyard companies’ premises. This helps the management of all the selected shipyard companies to centralize the receipt and distribution of materials from one place thereby, it may exercise proper control over the movement of valuable scarce materials and goods.

**Quality Control**

It is pertinent to have a look at the innumerable items like materials, equipment, machinery, and fittings that take part in shipbuilding. These items are supposed to be highly qualitative because, marine equipment is expected to work in a different climate on the seas and need to withstand the sea weather conditions. Whereas, the similar items used in other industries differ in their quality because, their usage is on surface. Marine equipment differs from the equipment used in other industries for established reasons. Firstly, the climatic and weather background in which the former have to operate namely, the salt-laden water and atmosphere, widely variant climates and the floating foundation causes severe limitations on the design of the equipment. Secondly, the ship form imposes restrictions in respect
of the weight and space available for machinery and equipment and their disposition. Thirdly, there are greater risks involved to life and property that is inherent in sea transportation. Quality control societies and various governments laid down certain rules and regulations governing the design, quality, construction and operation of the equipment. Under these limitations, the principal design criteria for all-marine machinery and equipment would be reliability, compatibility with the sea environment, simplicity and ruggedness, operational costs and weight. Standards of reliability are much more stringent with marine equipment than with the corresponding land based equipment. Since, failure at sea can risk the vessel as well as the valuable lives of the crew. All components directly exposed to sea water have either to be protected from corrosion through such means like painting and cathode protection or should be made with non-corrosive materials. Materials used in shipbuilding are grouped into nine categories. They are as follows:

(i) Steel plates and sections
(ii) Steel and non-ferrous pipes
(iii) Timber scantlings and laminates
(iv) Plastic items
(v) Insulation materials
(vi) Electric control panels, cables, switches, switchboards, fuses etc.,
(vii) Welding materials.
(viii) Gases like oxygen (industrial grade), acetylene, argon and Co2 etc.,

(ix) Marine products.

Except the categories iii (viii) and (ix), the remaining other materials are required well in advance before use. These items need to be identified and approved by the classification society entrusted with the classification of the ship. In respect of steel plates and sections, they are individually stamped by the classification society prior to their despatch from the integrated steel mills. Such stamping itself is a certificate of having witnessed the prescribed material tests and having satisfied itself through inspection and evaluation that the material is in conformity with the laid down specifications.

In all the remaining cases, certificates from manufacturers have to be obtained for submission to the surveyor of the classification society before their use. As far as timber is concerned, certain purposes like non-combustible and heat resistant bulkheads, special timber compositions are prescribed requiring necessary approval from statutory agencies entrusted with implementation of safety regulations. In the case of paints, the ship buyer’s approval is required and this is usually given only if the paints have an international reputation and is manufactured by internationally recognized manufacturers.

The ship fittings comprise of material hatch, cargo hatch and compartment access covers that are required to close the manhole
and drain plugs. Steel doors, ladders, platforms, ducting, fair leads, railings, exhaust pipes, cowls, pipe fittings, equipment and machinery seating, walls, windows, sanitary fittings, side lights, galley fittings, thermal insulation, accommodation equipment, clips, distribution boats, cathode protection, switch boards, indicating panels, electrical cable work accessories, heavy electrical castings, rudder posts, anchors, lamp and light fittings, navigational and signal lights, heavy steel chain cables, wireless sets etc. All these items require the approval of the owner’s inspection and in some cases like electrical components, valves and fittings, heavy castings, chain cables, the approval of the classification society or the statutory authorities is also required.

Ship Board equipment may be grouped as follows.

(i) Kitchen equipment, cooking ranges, stream cookers, mixing machines, refrigerators deep fryers, water coolers, boiling pans etc.

(ii) Laundry equipment, hydro extractors, washing machines, plot work irons, drying chambers, drying tumblers etc.

(iii) Life saving equipment and other accessories related with them like jackets, life boats, distress signal equipment etc.,

(iv) Navigation equipment and other related instruments like Eco sounder, direction finder, gyro compass, auto plot telescopes, fog horns, binoculars, lunar equipment etc.
(v) Domestic refrigeration systems  
(vi) Entertainment equipments  
(vii) Fire fighting equipments, fire-extinguishing system, breathing operators, fire alarm system, portable extinguishers etc.  
(viii) Main and emergency electrical switch boards  
(ix) Internal communication systems.  
(x) Engine room workshop, machine tools, cranes, welding and cutting equipment.  
(xi) Incinerator.  
(xii) Ship wireless equipment including telephones, walky-talkies, VHF-radio etc.  
(xiii) Transformers, batteries, UPS systems with battery charging outfit.  

At this juncture, it is worth-noting that the quality of the ship entirely depends on the material inputs used in the construction of the ship. We can expect better quality vessel with the higher quality of material used.  

As per the World Development Report published by United Nations Development Programme, India is considered as the tenth industrial power in the world. But it is lagging behind in the development of ancillary industries to meet Indian Shipbuilding needs. Even today, the Indian shipbuilding Industry is depending on foreign supplies for basic and other associated material and equipment required by it. As long as this dependence continues, there will be a long lead-time involved in procuring the material.
At the same time, it is very difficult for the Indian shipbuilders to go and check the material manufactured by the foreign manufacturers. Further, the indigenous material, equipment, tools, spares etc. are also subjected to inferior quality because of the short sightedness of the manufacturers. Many a time, it was found that the quality of the supplied items could not match with the quality of the sample forwarded earlier to the shipyards for quality check and for price negotiations. The managements of the shipyards must try to check the quality of each and every item received by them to ensure the quality of the inputs and thereby, the quality of the ship constructed.

All the public sector shipyards in the country are having their own quality check methods either by quality control department or by the quality control section created for the purpose. The prime aim of establishing the quality control department or quality control section is to examine the quality of the products they received and to ensure the fitness of the quality to put it in use in the production of a ship. In case of non-compliance, as regards to the quality, the same is expected to report to the production, planning and purchase departments within the shortest possible time. So that the rejected items are placed separately to avoid the use of such materials, equipments, spares and other miscellaneous items which are used in shipbuilding. As known, ships need to sail on the deep seas for a number of days. Compromising in the quality of the material leads to break down of the ship in mid of the seas and bringing it to
normalcy warrants to invest lot of money, efforts and time. As such, no ship owner prefers, irrespective of the types of ship (cargo, passenger, liner, oil carrier, anchor, survey vessel, trawler and Ballard), to take the risks of breakdown as it requires a lot of patience to attend the repair works on board in the seas. At the same time, the customers who booked their cargo and material at different sea ports in the world look for the delivery of their materials at the earliest, which creates more pressure on the ship owner.

All the selected shipyard companies have their own quality assurance section under the direct control of Director (operations). There are two Additional General Managers in the quality assurance section to look after the functions of their section. Under them, there are two chief managers to assist the Additional General Manager. Under the two chief managers, some supporting staff is also working in the section to examine the quality of the materials they received.

Table 3.1 indicates the performance of quality assurance section of selected shipyard companies during 1998-99 to 2008-09. In the year 1998-99, the number of consignments received by the quality assurance section were 1,326, out of which the consignments examined during the same period were 1,271. Forty eight consignments were rejected due to the inferior quality of the products that they received. In the year 2008-09, the number of consignments received by the section were 1,684 and the number
of consignments examined in the same year were 1,563 out of which 38 were rejected.

**Table 3.1**

**Performance of Quality Assurance Section in Selected Shipyard Companies during 1998-99 to 2008-09**

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Consignments Received</th>
<th>No. of consignments inspected</th>
<th>No. of Rejections</th>
<th>Percentage of Rejections in Total No. of Consignments received</th>
</tr>
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<tbody>
<tr>
<td>1998-99</td>
<td>1326</td>
<td>1271</td>
<td>48</td>
<td>3.6</td>
</tr>
<tr>
<td>1999-00</td>
<td>1239</td>
<td>1202</td>
<td>44</td>
<td>3.5</td>
</tr>
<tr>
<td>2000-01</td>
<td>1124</td>
<td>1008</td>
<td>19</td>
<td>1.7</td>
</tr>
<tr>
<td>2001-02</td>
<td>1248</td>
<td>1110</td>
<td>62</td>
<td>4.9</td>
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<tr>
<td>2002-03</td>
<td>1276</td>
<td>1128</td>
<td>41</td>
<td>3.2</td>
</tr>
<tr>
<td>2003-04</td>
<td>1396</td>
<td>1227</td>
<td>31</td>
<td>2.2</td>
</tr>
<tr>
<td>2004-05</td>
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<td>37</td>
<td>2.5</td>
</tr>
<tr>
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<td>48</td>
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<tr>
<td>2008-09</td>
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<td>1563</td>
<td>38</td>
<td>2.2</td>
</tr>
</tbody>
</table>

*Source:* Compiled from the records of the selected shipyard companies and on the basis of information collected through face-to-face interaction with the officials of Quality Assurance Section.

The highest number of consignments rejected were found in the year 2001-02 with 69 rejections. The immediate previous year *i.e.* 2000-01, the rejections were 19 out of 1,008 consignments examined and 1,124 consignments received. The difference
between the consignments received and consignments examined was due to the role of quality assurance societies like LRS, IRS, DQA (WP) and DQA (N) in quality assurance for the material on behalf of the customers. In view of the growing availability of varied quality material in the market, the shipyard needs to have its own check for the material once certified by quality assurance societies. In other words, all the consignments comprising of equipment, materials and items are to be examined in the light of the availability of the fake certificates attached to the materials received by the shipyard. In such case, the shipyard needs to employ additional machinery, men and instruments to check the quality of the material.

The stores management assumes greater importance in the Indian context because of the stiff supply positions of various scarce materials. The blocking up of investments in huge amounts in inventories in the Indian industry attracted the Government of India and appointed Tandon Committee to recommend steps to reduce inventories in Indian industries.

The stores organization is responsible for receipt, standardization, identification, general inspection, and levels of stock of the incoming materials. Besides these responsibilities, preservation, storage, distribution and disposal of various materials are also held by it. The stores location and layout have a bearing on the organizational effectiveness. Locating the stores, proximity to user departments is a general practice to minimize
transportation and other handling expenditure and to ensure timely supply of the necessary material.

The ship building industry is basically an assembling industry and which requires over 20,000 items to put in the construction of the ship. These items need to be procured, stored and maintained by the stores until the materials are issued to the various user departments at various time periods.

The stores organization of the selected shipyard companies along with the roles and positions is given in the chart 3.1 which tells about various sections and the roles of these sections along with the number of officers and assistants.

The stores organization in the selected shipyard companies is headed by officer-in-charge (stores) who is responsible directly to the General Manager (commercial). In turn, the General Manager (commercial) is responsible to Chairman-cum-Managing Director. Under officer-in-charge (stores), there are three different section-in-charges and are responsible for various functions of stores organization. The officer-in-charge (stores) is in the cadre of Deputy General Manager and the section-in-charges are in the cadre of Senior Manager. Under these three section in-charges, there are five dealing officers, 58 storekeepers and equal number of stores attendants and mazdoors.

The procedures followed in respect of receipt of materials involves the physical inspection of the material received and to examine the quality and quantity against the specifications made in the purchase order and this is to ensure the suitability of the
material for the requirements of the companies and to know whether the supplier fulfilled the terms and conditions laid down or not.

The stores section after careful inspection of the materials received, needs to make arrangements for the quality control check which is going to be done by quality assurance section of the selected shipyard companies. The selected shipyard companies have decentralized material receipt centres because it has four to five store yards located at a distance of two to five kilometers from the shipyard premises. These decentralized receiving centres ultimately necessitated to have more number of people to carry out the job of receiving materials.

If any deviation in the quality and quantity of the material ordered and received is found, it will be kept in abeyance till the supplier rectifies the discrepancy. In case of other materials, which satisfies the stores receipt centre, the items received are recorded in the ledger and the incoming material particulars are fed to the computers simultaneously. Afterwards, the receiving officer prepares a goods receipt note. In case of rejections, if any, the shipyard companies have a practice of informing it to the supplier within 15 days from the date of receipt of it by the selected shipyard companies.

Due to decentralization of all the stores in the premises of the selected shipyard companies, they are forced to receive the materials at stores located at different places which are away from two to five kilometers. Eventually, the location of stores at
different places gives rise to certain problems like higher transportation costs, poor delivery of materials, communication problems and other associated problems. To exercise control over the materials, it is necessary to locate all the stores at one place, as such, it is suggested that the selected shipyard companies should take necessary steps to locate all the stores in the premises of shipyard companies under review itself.

The materials used in ship construction are expected to work in a different climate on the seas and they need to withstand for the sea weather conditions. Marine equipment is different from the equipment used in other industries as their usage is on surface.