
UNIT 18 SECURITY AND LOSS PREVENTION

Objectives

After completing this unit you will be able to:

- be familiar with the security management measures and practices in warehouses;
- understand the different types of losses in warehouses;
- be familiar with the methods of preventing and controlling the losses; and
- understand the various actions to be taken to dispose the undesirable materials in the warehouses.

Structure

- 18.1 Introduction
- 18.2 Types of Losses Due to Warehousing Systems
- 18.3 Type of Losses Due to Shrinkages/Pilferages
- 18.4 Type of Losses Due to Fire
- 18.5 Stock Verification in Warehouses
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18.1 INTRODUCTION

Security is an important factor of business efficiency. The objective of security management is loss prevention. LOSS is always a resource that gets wasted and therefore this is one of the most detested word to making. LOSS is a cost and all efforts have to be undertaken to minimize it or preferably eliminate it. LOSS in warehouses seriously erode the profitability of any organization as huge amount of money is locked up in stores.

The principal aim of security management is to protect the assets of the company and devise adequate counter measures to create secure conditions within the company. Security problems in warehouses are dependent upon the Nature and Value of the materials stored, and in general, it may be said that more valuable the item, the Greater the need for tightened security. The security measures should be commensurate with the potential threats following a through and professional assessment of the risks. Having established the extent of the threat to the company the policies of denial, detection and deterrent need to be implemented i.e., denial of the company's assets to the potential threats by good physical and mechanical protection, detection of any undesirable activity within the company by the direct methods of good security checks, alarm systems or other physical means. All the procedures and practices should be examined frequently to ensure that they are adequate and that the person responsible for carrying out these duties is observing the procedures. Loss analysis should be done based on reliable figures. LOSS analysis charts should be supplied as matter of routine to people to ensure that the problems are tackled when they are first apparent and not when they have been allowed to magnify.

If we accept that a manager is not only responsible for the motivation, direction and control of staff, but is also charged with the prevention and profitable use of the assets of a business, then, the importance of security to him is obvious and this manager will be successful in applying security to his business.

Warehousing of security measures adopted in warehouses are dependent upon the following factors :

- a) Warehousing systems of inventory management, receipt, storage, dispatch, handling and housekeeping
- b) Shrinkages/pilferages
- c) Fire

18.2 TYPES OF LOSSES DUE TO WAREHOUSING SYSTEMS

Let us discuss various type of losses that can be found due to improper warehousing systems. The different types of losses generated in warehouses due to improper systems of inventory management, receipt, storage, dispatch, handling and housekeeping are as follows :

Obsolete items

These are the materials and equipments which are not damaged and which have economic worth, but are no longer useful for the present and future operation of the organization. Obsolete items get generated particularly due to improper inventory management systems.

Surplus items

These are materials and equipments which have no immediate use, but have accumulated due to faulty planning, forecasting and purchasing. However, they may have usage value in future.

Damaged Materials

These are the materials which are not fit for use or consumption, as they have got damaged physically or chemically due to handling, accidents, fire or exposure to harmful environment.

Scrap items

These are process wastage i.e., residue of process materials left during a manufacturing operation. Worn-out, perished or damaged materials and parts are also scrap items.

Reasons for the generation and accumulation of the above mentioned losses:

- a) **Changes in product design:** After a product have been in the market for sometime, it requires to be replaced with new products. Such needs for replacement calls for new product design and development, and this process may render many inputs obsolete.
- b) **Rationalisation:** There can be a need to rationalize inputs required through standardization, simplification and variety reduction with an objective of achieving operational efficiency. This may render some items surplus or obsolete.
- c) **Human Errors:** In many cases, generation of obsolete, surplus and scrap can due to human errors in implementing and maintaining proper warehouse systems.
- d) **Faulty Purchase:** Sub-optimizing decisions like buying in bulk to take care of discounts and transportation economy, without taking into account storage

space requirements and technological changes, lead to the accumulation of surplus, obsolete and scrap. **Retrieval and Transaction Processing System**

- e) **Faulty Planning:** Wrong indenting by the user department or wrong sales forecast may also lead to accumulation of undesirable stocks.
- f) **Improper Storage and Handling Methods:** Faulty store keeping methods, without adequate preservation and protection lead to spoilage. Inferior material handling practices, improper codification and poor manufacturing methods also result in obsolete, surplus and scrap.
- g) **Cannibalization:** When a machine breakdown occurs, sometimes it is rectified using parts of an identical machine which is not functioning due to various reasons. This process of cannibalization if continued unchecked result in obsolete and scrap items.

Prevention and Control

The steps involved in prevention and control of the losses are as follows:

- a) Whenever changes in production programme, design or product lines are contemplated, a representative of materials management department should be kept informed.
- b) Periodic review of stock records should be done on a systematic basis so that the entire list of materials are covered once or twice a year.
- c) Standards may be set to indicate the basis upon which an item should be declared surplus.
- d) Process losses should be decreased by proper examination of specification and standards.
- e) Use of standard parts should be encouraged wherever possible.
- f) Selection control based on ABC analyses, accurate forecasting techniques and proper prevention techniques should be adopted.

The combing process of combing the stock records and movement analysis have been found to be effective in locating undesirable stocks in the total inventory. Stock issue cards should be combed and items which have not been consumed for period of 1 year, 2 years, 3 years, 5 years and above may be isolated. A list of such items and their value in terms of money and time must be made. Such lists of disposal decision can be put up before the top management. Such combing and movement analysis must be done on a continuous basis.

Effective Point Advice (EPA)

Many organizations have introduced formal documentation in introducing changes in design and is known as EPA. The proposed changes, the details of new inputs required and details of items rendered obsolete is mentioned along with the approximate date of introduction of the change. This document is circulated to concerned department. EPA, therefore, helps in tapering off the stock of obsolete items, cancellation of orders of such items and placing order or manufacturing new required items.

Disposal Action

Once the items have been identified as obsolete, surplus, damaged or scrap, the next step is to find methods to get rid of them. Disposal actions when handled judiciously can result in good returns to the organization.

An effective disposal requires a compact organization for disposals, continuous market survey on the prices, constant interaction with other industries generating similar type of losses and with the end users.

Waste disposal action can be as follows:

- 1) **Use within the firm:** The greatest value is obtained from surplus materials, if it can be reclaimed for further use in the firm with minor modifications
- 2) **Sell directly to end users:** In practice, it has been found more profitable to dispose the scrap directly to end users rather than to middlemen.
- 3) **Return to the supplier:** To get maximum return, surplus materials should be returned to the original supplier.
- 4) **Sell to Dealer/Middlemen:** Dealers or brokers are specialised middlemen who collect, sort and process surplus materials, especially surplus scrap. This approach is utilized when it has been determined that scrap quantities are too small to justify direct sale to the original supplier.
- 5) **Sell to the employees:** In case the items have an end use value to the employee, many firms make it a practice to sell such surplus items directly to their employees.

Certain points to be remembered during disposal of the materials:

- a) The procurement department should be made responsible for disposal because they are much more familiar with the suppliers, end-users and the current market trends.
- b) Before disposal action the materials should be segregated according to their characteristics. Mixed materials yield lower returns.
- c) Regular collection/segregation of obsolete surplus and scrap should take place.
- d) Physical verification of the materials should be done in order to know the amount of generation in a particular time period i.e. the material volume, weight or number should be ascertained.
- e) Decide upon the best policy and method of sale whether through tendering, auction or negotiation.

18.3 TYPE OF LOSSES DUE TO SHRINKAGES/ PILFERAGES

One of the important loss to warehouses is pilferage which is generally due to improper attitude of the employees. It has been rightly said that security is an attitude of mind. Pilferage gradually expands into a vicious circle and can eat up the profitability of the organization even after proper systems of warehouse management has been implemented, inventory planning has been done meticulously, adequate recording of receipt, storage issues and reconciliation has been done and also the valuable waste is accounted properly.

Shrinkages

LOSS in warehouse is concerned with the disappearance of materials and stocks. Warehouses take a physical inventory periodically. When the count is completed, the difference between the actual inventory on hand and what it should be according to receipt and issue records, is called shrinkage.

Some of the reasons of shrinkages are:

- 1) Internal theft
 - 2) Unauthorized mark downs
 - 3) Manipulation of receipts and issue records.
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- 1) **Internal Theft:** Warehouses employ many unskilled people and pay them minimum wages. Whatever the motivation, a fair percentage of such workers succumb to temptation and steal.
- 2) **Unauthorized mark downs:** Some of the dishonest employees can intentionally damage or change the tags and markings of the good materials in order to down grade them to declare it unfit for internal use for to reflect a lower value of inventory. The material which are declared unfit for use can be sold profitably in the market through under invoicing those materials. Also by reflecting a lower value of inventory, a shortage can be created and fresh purchases made from suppliers in lieu of monetary favours.
- 3) **Manipulation of receipts and issue records:** Receiving and issuing employees can falsify the various receiving and delivering document. Sometimes this is done in conspiracy with transporters or material handlers. Bulk consignment receipts and issues are vulnerable to collusion between the transporters and warehousemen as the loss is easier to conceal than the theft of individual items.

Prevention and Control

- 1) Improve morale of employees through implementing positive programs of employees relations build around fair compensation, proper surroundings and employer sponsored activities.
- 2) There should be a highly visible security program and a rigid company policy of prosecuting any employee caught stealing.
- 3) Pre-employment screening should be done to secure information regarding the education, background, experience and ethical code of the employees.
- 4) Wherever possible employees should be required to used a designated entrance when coming to or leaving work and security personnel should be posted at such location.
- 5) Periodic checking of garbage areas and remote corners as employees find them ideal place to hide the stolen goods.
- 6) Strong tamper resistant locks should be provided at important location particularly where valuable items are stored.
- 7) Incoming shipments should be physically counted and verified against the accompanying documents. Receipts given to delivery people should indicated any shortage found. Test counts can be done randomly as a security measure.
- 8) Under cover investigation should be carried out. Investigators posing as employees are placed within the warehouse.
- 9) All employees should be involved in the security management programmes.
- 10) Awards and incentives can be provided to employees to encourage interest and participation in case of no shrinkage found.
- 11) The marking and tags should no be loose or easily removable.
- 12) Frequent stock taking of valuable items should be carried out to reconcile stocks.
- 13) Wherever possible loads should be planned so that vehicles leave or enter the warehouse filled to capacity and gross weight ascertained.
- 14) Ensure good housekeeping – A place for everything and everything in place.
- 15) Install electronic alarm systems and closed circuit TV for ensuring security within the warehouse.
- 16) Conduct training programmes of employees on attitudinal development and security awareness.

18.4 TYPE OF LOSSES DUE TO FIRE

Fire safety is critical element in any warehouse safety programme. Consideration must be given to emergency programmes, sprinkler protection, fire hoses, fire extinguishers and flammable liquids and gases. Fire protection is a serious subject, which if not addressed, could result in a catastrophic loss of property and life.

Many warehouses handle or store flammables. When storing a chemical always consider the flash point. The lower the flash point, the greater is the danger. Flammables in container may leak as a result of handling or damage and it can get ignited from static sparks, friction sparks or electrical sparks. Another source of ignition is heat generated from rapid compression.

Following actions need to be taken for prevention and control of fires:

- Select and install fire extinguishers that are appropriate for the workplace hazard.
- Fire extinguishers should be installed at places where they are easily accessible.
- Make arrangement for portable extinguishers also.
- Ensure regular inspection of the extinguishers for signs of wear and potential malfunctioning.
- Fire extinguishers with Carbon dioxide units have not gauge and, therefore, have to be weighed to determine if they are full.
- Install sprinkler system as it is one of the most reliable form of fire fighting protection.
- All employees should be trained in fire fighting techniques.

18.5 STOCK VERIFICATION IN WAREHOUSES

It is the process of physically counting, measuring or weighing the entire range of items in the stores and recording the results in a systematic manner.

Stock verification is done for the following reasons:

- To reconcile the stock records and documents for their accuracy and usefulness.
- To identify areas which require more disciplined document control.
- To back up the balance sheet stock figures.
- To minimize pilferage and fraudulent practices.

Physical verification can be carried out periodically or on continuous basis.

Periodic verification: Under this system, the entire cross-section is verified at the end of one period, which is usually the accounting period. Necessary stock verification cards and check sheets must be prepared. During the verification process all transactions must be stopped. It is necessary to verify items which are under inspection, items sent out to suppliers for processing and stock at stock yards. Separate provisions must be made for items which are damaged or deteriorated. The stock in hand is tallied against the stock records. Discrepancies, if any, are noted down.

Continuous verification: Under this system, verification is done throughout the year as per pre-determined plan of action. A class items may be verified thrice a

year, B class items twice a year and C class items once a year. Retrieval and Transaction Processing System supposes that a perpetual inventory record for each item is maintained showing all transactions so that reconciliation can be done. Investigation with regard to discrepancies are spread over the year and hence detailed analysis is possible. There is no need to “freeze” the entire operations of the store. Any time stock records are more up-to-date when compared to the periodic verification system.

18.6 SUMMARY

In view of the paucity of essential materials and their economic value, it is necessary that optimum usage of materials is made. Disposal, salvaging and utilization of obsolete, surplus and scrap is an art by itself and has to be dealt innovatively in order to prevent losses.

Attitude of employees is one of the most important factor that facilitates compliance to safety practices and prevent shrinkage.

Large organization set up committees consisting of purchase, finance, stores and production personnel to decide upon the loss prevention measures to be implemented.

18.7 SELF ASSESSMENT EXERCISES

- 1) Discuss the various losses in warehouses. What are the reasons of their generation?
- 2) Describe the procedure of preventing and controlling losses in warehouse.
- 3) Discuss the various alternatives available during the disposal decision making process.
- 4) What are the various considerations to be made for controlling fire in stores?
- 5) Describe the various measures that can be adopted to prevent shrinkage in warehouse.
- 6) Write notes on:
 - a) EPA
 - b) Obsolete, Surplus and Scrap
 - c) Stock verification

18.8 REFERENCES AND SUGGESTED READINGS

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