

Unit-4 Overheads

Introduction:

Overheads are indirect Costs. Indirect Cost cannot be traced to any unit. These costs are incurred for a number of units and so cannot be identified with a cost unit. Indirect costs are those which cannot be allocated to any particular cost unit but is generally apportioned to or absorbed by cost units on a suitable basis. Overhead is also known as “on cost, burden or load”.

Overheads are any expenditure over and above the prime cost. Overheads may be defined as all indirect costs incurred for the production of goods or services. Overheads are also known in cost accounting terminology as ‘On Cost’, ‘Burden’, Indirect Expenses, etc.

Meaning of Overheads:

Overheads are any expenditure over and above the prime cost. Overheads may be defined as all indirect costs incurred for the production of goods or services. Overheads are also known in cost accounting terminology as ‘On Cost’, ‘Burden’, Indirect Expenses, etc.

Indirect cost or overheads are those expenses which cannot be identified or related to a specific or particular product or service. These overheads are not ‘Allocated’ but are apportioned (divided) among various products or cost centers like rent, insurance, repairs, telephone charges, etc.

Definition of Overheads:

“Any cost of doing business other than a direct cost of an output of product or service”.

– Eric L. Kohler

“Overheads are cost of an which do not result solely from the existence of individual cost units”.

– W. M. Harper

Classification of Overheads:

According to Elements, Function, Variability and Controllability Overheads may be classified on various basis such as:

- According to Nature/element
- According to Function or Functional classification

- According to Variability
- According to Controllability.

1. According to Elements or Nature: Overheads are divided into 3 categories:

- Indirect material
- Indirect labor
- Indirect expenses

2. According to Function:

A) Production Overhead: Production Overhead mean and include all indirect cost involved in the production process. It includes indirect material, indirect labor and other indirect expenses of the factory. Production overhead are also termed as factory overhead or works overhead etc.

The examples include Factory's power & lighting, factory rent, depreciation on factory building, repairs & maintenance etc.

B) Administrative Overhead: All those costs which are of general nature and spent for administrative purposes will form part of administrative overhead. For example office staff salaries, manager salary, office stationary, rent of office building, insurances of office building etc.

It is to remember here that the purpose for which amount is spent will constitute the basis for its allocation. For instance if stationary is purchased for office use, it will be administrative overhead but if the stationary is used in factory, it will be part of production overhead.

C) Selling & Distribution Overhead: Selling and distribution overhead include all indirect costs incurred to enhance and maintain sales level. For example – godown expenses, packing expenses, salesman's salary & advertising, travelling expenditure etc.

3. According to Variability:

Overheads can be classified into three categories according to variability viz

a) **Fixed Overhead:** Costs are those cost which do not change because of change in the particular production level. It means the fixed overhead is independent of production process. Some examples are rent of building, salaries to staff, insurance of the building, manager's salary etc.

It should be remembered here that concept of fixed cost is applicable only in the short run. All costs are variable in the long run.

b) **Variable Overhead:** This is the most confusing word. If we are talking about overhead, it has to be indirect cost and it is generally believed that all indirect cost are fixed cost. But this is not true. There are certain cost which are indirect costs but are variable in nature.

For instance, oil & lubricant expenditure of the machine. It is indirect cost because it cannot easily be identified with the product but variable in nature as the use of oil and

lubricant depends on the level of production. Other examples are store, power, lighting expenditure, indirect labor etc.

c) **Semi-Variable Overhead:**

Semi variable Overhead costs are those costs which do not vary in the same proportion as the level of production.

Example of semi variable cost are:

Depreciation of P & M, Inspection cost, Supervisors salaries, Repairs & maintenance

4. According to Controllability:

All those overhead cost which can be influenced by the decision of the management are called controllable overhead cost. Generally variable and semi variable cost are covered in this category.

Uncontrollable Overhead – Those overhead costs which are not controllable at the discretion of the management are called uncontrollable overhead cost. Generally fixed overhead cost is covered in uncontrollable overhead e.g., rent of office, salaries of staff etc.

Manufacturing Overhead:

Factory Overhead also called as manufacturing overhead or work overhead. Manufacturing overhead is all indirect costs incurred during the production process. This overhead is applied to the units produced within a reporting period.

Accounting of Manufacturing Overheads:

A control account under the name of manufacturing Overhead Control Account is opened in the Cost ledger.

This account is debited by indirect material, indirect labor and indirect expenses incurred by passing the following entry:

Manufacturing Overhead control A/c	Dr.
To Stores Ledger Control A/c	
To Wages Control A/c	
To General ledger Adjustment A/c	

The debit side of this account thus represents total manufacturing overheads incurred.

Control of Manufacturing Overheads: Following steps will be helpful in control of manufacturing overheads:

(i) **Classification According to variability:**

Manufacturing overheads should be classified according to variability i.e, fixed, variable and semi-variable.

Estimation of Manufacturing Overhead:

Cost allocation:

Apportionment:

Reapportionment

Absorption of Manufacturing Overheads:

Manufacturing Overhead – Collection of Overhead:

Manufacturing overhead represents all costs incurred in the factory over and above direct material cost and direct labor cost. In other words, it is the aggregate of factory indirect material cost, factory indirect labor cost and cost of factory indirect services.

Examples of these costs are – consumable stores, lubricating oil, factory rent, repairs and maintenance of plant and machinery, depreciation of plant and machinery used in the factory, depreciation of factory building, etc.

Separate Standing Order Numbers are used for collection of different items of manufacturing overhead.

It is primarily collected from the following sources:

1. **Stores Requisitions:** The indirect materials are requisitioned from stores through material requisition slips showing related standing order number and the department using the indirect materials. The total indirect materials drawn from store are debited to Manufacturing Overhead Control Account and credited to Stores Ledger Control Account.
2. **Time Cards or Wages Analysis Sheet:** Indirect wages payable are booked against each standing order number and for each department on the basis of time cards or job cards. These are summarized monthly in Wages Analysis Sheet. The total of indirect factory wages obtained from this sheet is debited to Factory Overhead Control Account and credited to Wages Control Account.
3. **Cash Book:** If petty expenses are frequently incurred, cash book should be scrutinized to collect these expenses according to standing order numbers department-wise.
4. **Subsidiary Records:** There are many items of expenditure which do not involve current cash outlay. A provision is required to be made in cost accounts in anticipation of cash outlay to be made in future. Items of this type are – depreciation, notional rent, notional interest, delayed electricity, telephone and other bills, etc.
These items are recorded in subsidiary records like plant ledger or general ledger. A thorough scrutiny of these subsidiary records helps to collect the amount to be debited to factory overhead account.

Absorption of Overheads:

As soon as the service department's overheads are re-distributed to production departments, the total overheads of production departments should be charged on the number of units produced in those departments. The process of charging the overheads from cost centers to cost units is known as absorption of overheads.

In other words, the recovery of overheads by the finished goods from various production departments are known as absorption of overheads. The main purpose of overheads absorption is to assign an equitable proportion of the total factory overheads to each unit of production.

Methods of absorption of Overheads:

The important methods used in absorption of factory overheads are discussed below:

1. **Direct Material Cost Method:** Under this method, factory overheads are absorbed on the basis of cost of direct materials. The overheads absorption rate is expressed as a percentage of direct material cost.

It is calculated as under-

$$\left. \begin{array}{l} \text{Direct material} \\ \text{percentage rate} \end{array} \right\} = \frac{\text{Factory overheads (budgeted or actual)}}{\text{Direct material cost (estimated or actual)}} \times 100$$

This method can be adopted for assembly line, process type and chemical industries where the volume of output and the time of operation of a plant or department bear a direct and proportionate relationship to the materials consumed.

2. **Direct Labor Cost (or Direct Wages) Method:** Under this method, the overheads to be absorbed are divided by direct labor cost and the quotient is expressed in the form of percentage.

The overhead rate is obtained by using the following formula:

$$\left. \begin{array}{l} \text{Direct labour} \\ \text{percentage rate} \end{array} \right\} = \frac{\text{Factory overheads (budgeted or actual)}}{\text{Direct wages (estimated or actual)}} \times 100$$

3. **Prime Cost Percentage Method:** Under this method, overheads absorption is made on the basis of prime cost. It assumes that both materials and labor give rise to overheads and, therefore, both should be taken into consideration. The overhead rate is expressed as a percentage of the prime cost and can be obtained by using the following formula:

$$\left. \begin{array}{l} \text{Prime cost} \\ \text{percentage rate} \end{array} \right\} = \frac{\text{Factory overheads (budgeted or actual)}}{\text{Prime cost (estimated or actual)}} \times 100$$

4. **Direct Labor Hour Method:** Under this method, the labor hours spent against each job or product in a particular department are added together and a labor hour rate is arrived at through dividing the total overheads of the department by the total direct labor hours.

The formula for computing the direct labor hour rate for a period is as follows:

$$\left. \begin{array}{l} \text{Direct labour} \\ \text{hour rate} \end{array} \right\} = \frac{\text{Factory overheads (budgeted or actual)}}{\text{Labour hours (estimated or actual)}}$$

5. **Machine Hour Rate Method:** In a manufacturing environment where automatic and semi-automatic capital intensive machinery are used, machine hour rate method is applied

in absorption of overheads. The term 'machine hour rate' indicates the cost or expenses incurred in running a machine for one hour.

It is on the basis of this rate that a charge is made to the jobs for the overheads depending upon the number of hours for which a machine has worked on that job. The machine hour rate is obtained by dividing the amount of factory overheads concerning a machine by the number of machine hours. Thus-

$$\text{Machine hour rate} = \frac{\text{Factory overheads (budgeted or actual)}}{\text{Machine hours (estimated or actual)}}$$
