Process Costing

Definition: Process Costing is defined as a branch of operation costing, that determines the cost of a product at each stage, i.e. process of production. It is an accounting method which is adopted by the factories or industries where the standardized identical product is produced, as well as it passes through multiple processes for being transformed into the final product.

In simple words, process costing is a cost accounting technique, in which the costs incurred during production are charged to processes and averaged over the total units manufactured. For this purpose, process accounts are opened in the books of accounts, for each process and all the expenses relating to the process for the period is charged to the respective process account.

Hence, it ascertains the total cost and unit cost of a process, for all the processes carried out in industry. Further, the average cost represents the cost per unit, wherein the total cost is divided by the total number of outputs produced during the period to arrive at the cost per unit. The cost per unit can be calculated using First in First Out Method (FIFO), Average Method and Weighted average Method.

Features of Process Costing

The plant has various divisions, and each division is a stage of production.

The production is carried out continuously, by way of the simultaneous, standardized and sequential process.

The output of a process is the input of another.

The production from the last process is transferred to finished stock.

The final product is homogeneous.

Both direct and indirect costs are charged to the processes.

The production may result in joint and by-products.

Losses like normal and abnormal loss occur at different stages of production which are also taken into consideration while calculating the unit cost.

The output of one process is transferred to another one at a price that includes the profit of the previous process and not at the cost.

At the end of the period, if there remains the stock of finished goods, then it is also expressed in equivalent completed units. It can be calculated as:
Equivalent units of semi-finished goods or WIP = Actual number of units in process × Percentage of work completed
Process costing is employed by the industries whose production process is continuous and repetitive, as well as the output of one process is the input of another process. So, chemical industry, oil refineries, cement industries, textile industries, soap manufacturing industries, paper manufacturing industries use this method.

Normal Loss:
Normal loss means that loss which is inherent in the processing operations. It can be expected or anticipated in advance i.e. at the time of estimation.

Accounting Treatment:
The cost of normal loss is considered as part of the cost of production in which it occurs. If normal loss units have any realisable scrap value, the process account is f credited by that amount. If there is no abnormal gain, then there is no necessity to maintain a separate account for normal loss.

Journal Entry:

(i) Normal Loss A/c …Dr.

To Process A/c
(ii) Cost Ledger Control A/c …Dr.

(Scrap value) To Normal Loss

Abnormal Loss:
Abnormal loss means that loss which is caused by unexpected or abnormal conditions such as accident, machine breakdown, substandard

material etc. From accounting point of view we can say that abnormal loss is that loss which occurred over and above normal loss. These losses are segregated from process costs and investigated to prevent their occurrence in future.

Process account is to be credited by abnormal loss account with cost of material, labour and overhead equivalent to good units and the loss due to abnormal is transferred to Costing Profit and Loss Account.
Journal Entries:

(i) Abnormal Loss A/c …Dr.

To Process A/c

(ii) Cost Ledger Control A/c …Dr. (Scrap value)

Costing Profit & Loss A/c …Dr.

To Abnormal Loss

Abnormal Gain:
If the actual loss of a Process is less than that of expected loss then the difference between the two will be treated as abnormal gain. In another way we can define it as the difference between actual production and expected production.

Accounting Treatment
The value of abnormal gain is transferred to the debit side of the relevant process and ultimately closed by crediting it to the Costing Profit and Loss Account.

Journal Entries:

(i) Process A/c ..Dr.

To Abnormal Gain

(ii) Abnormal Gain A/c ..Dr.

To Normal Loss

To Costing Profit & Loss A/c

Difference between Normal and Abnormal Loss

Normal and abnormal loss concept are associated with processing costing.

Normal Loss

Normal loss is a loss which is very much expected in the industry. This is inherent loss of the industry and it cannot be avoided. Normal loss represents the practice environments where all input cannot be perfectly equal to the output. Normal loss varies from industry to industry.

Normal loss is not valued in the process costing and value of normal loss is adjusted in output i.e. normal loss is born by the output.

Abnormal Loss

Abnormal loss is a loss which is over and above the normal loss. Abnormal loss is specifically tracked in process costing to investigate the reason and appropriate control.

Abnormal loss is valued and separately charged unlike normal loss it is not adjusted against output rather a spate account of abnormal loss is opened to account for abnormal loss.
Normal and Abnormal Wastage
Normal Wastage (Loss)

This means the usual percentage of wastage arising in its natural course in a process or operation. Such wastage is not avoidable as it occurs in its natural course. The normal wastage and loss due to it should be charged to the good units arising out of the process. In this way, the cost of spoiled and lost units is absorbed as an additional post of the good produced by a given process.
The following points must be considered in this connection while accounting for a normal wastage In some cases, the defective goods carry some value. The amount, if realized, should be credited to the process concerned.
In a case where the scrap is of very small value; it will be better to credit the total sale proceeds of such scraps to works Overheads Account. However, if there is any loss the Process Account must be debited,
In a few cases, the output might be re-worked either in the same process or an earlier one. Such an output may be of little worth. In such a case the relevant process should bé charged to the process to which such material is relegated.
Abnormal Wastage (Loss)
Abnormal wastage is a wastage which does not occur in the natural course and is usefully in excess of the normal process wastage or loss. This occurs because of carelessness on the part of the worker or the management, defective scheduling or designing, sabotage etc.

Treatment Of Abnormal Wastage
Abnormal wastage should be treated in the following manner:

Compute the normal loss, first.
Compute the cost of production per unit of the relevant process, after taking into account the normal loss but assuming that there is no abnormal loss.
The cost of production per unit so computed should then be multiplied with the lost abnormal units. This will give you the Total Abnormal Wastage.

Abnormal Wastage Account then is debited and the relevant Process Account is credited with the amount and the quantity of abnormal wastage.
The balance standing in the Process Account will indicate the cost of good units produced by the process concerned.
Abnormal Wastage Account will then be closed by transferring the balance standing to the Costing profit and Loss Account.