METHODS OF MATERIAL ISSUE

AVERAGE PRICE METHOD

It is based on the assumption that all materials in store are so mixed up that an issue cannot be made from any particular lot of purchase and, therefore, it is proper if the materials are issued at the average cost of materials in store.

Two averages:-
   a) Simple average price
   b) Weighted average price

SIMPLE AVERAGE PRICE

The price, which is calculated by dividing the total of the prices of the materials in the stock from which the material to be priced could be drawn by the number of the prices used in that total. Calculated by dividing the total of unit purchase prices of different lots o in stock on the date of issue by the number of prices used in the calculation and quantity of different lots is ignored.

Calculate average price of materials if the firm purchases

1000 units @ Rs. 10
2000 units @ Rs. 11
3000 units @ Rs. 12.   Calculating the issue price of 6000 units for production.
Simple Average Price = $\dfrac{10 + 11 + 12}{3} = \dfrac{33}{3} = Rs.\,11$

Total purchase price of materials = (1000 x10)+(2000x11)+(3000x12) = 68000
Total cost of material issued for production 6000X11 = 66000
Thus, under-recovery (loss) of material cost 68000 – 66000 = 2000

WEIGHTED AVERAGE PRICE

A price which is calculated by dividing the total cost of materials in the stock from which the materials to be pried could be dawn by the total quantity of materials in that stock.

From the above example, the issue price calculated will be

$$\frac{(1000 \times 10) + (2000 \times 11) + (3000 \times 12)}{1000 + 2000 + 3000} = \frac{68000}{6000} = Rs. 11.33$$

Weighted average price recovers cost of materials from the production process. During the periods of heavy fluctuations, weighted average price method will provide better results, because it tends to smooth out wide fluctuations in prices.

ADVANTAGES OF AVERAGE PRICE METHOD

1. Rational, systematic and not subject to manipulation.
2. Best method when the prices fluctuate widely, as it tend smooth out the fluctuations.
3. Issue price need not be calculated at each issue. Issue prices are changed only when there is fresh purchases.
4. Recovers cost of materials.
5. Issue price tends to be near to the market prices.
6. Eliminates unnecessary adjustments in stock valuation.

DISADVANTAGES OF AVERAGE PRICE METHOD

1. Needs to calculate fresh issue price at each purchases. Thus, increased chances of clerical errors and mistakes.
2. Issue price does not represent actual cost of materials, but only average price of materials.
3. When the prices rise, it overstates profit, because the average price is less than the recent market prices.
4. Closing stock is not valued at current market cost.

Since most of the essentials of a good method of issue price are possessed by the weighted average cost method, this method is preferred by firms.

Prepare Stores Ledger Account - based on:-

i.   Simple average price method and

ii.   Weighted average price method

Transactions during the month of September

	Receipts Units	Rate Rs.	Issue Units
02-09-2015	200	2.00	--
10-09-2015	300	2.40	--
15-09-2015	--	--	250
18-09-2015	250	2.60	--
20-09-2015	--	--	200

STORES LEDGER ACCOUNT FOR THE MONTH OF SEPTEMBER 2015 – SIMPLE AVERAGE PRICE METHOD

Date	References	Receipts			Issus			Balance	
		Units	Rate	Total	Units	Rate	Total	Units	Total
02-09	Goods Received Note No...	200	2.00	400	--	--	--	200	400
10-09	Goods Received Note No...	300	2.40	720	--	--	--	500	1120
15-09	Requisition Slip No...	--	--	--	250	2.20*	550	250	570
18-09	Goods Received Note No...	250	2.60	650	--	--	--	500	1220
20-09	Requisition Slip No...	--	--	--	200	2.50**	500	300	720

* (2+2.40)/2 = 2.20   ** (2.4 + 2.6)/2 = 2.50

Date	References	Receipts			Issus			Balance	
		Units	**Rate**	**Total**	**Units**	**Rate**	**Total**	**Units**	**Total**
02-09	Goods Received Note No...	200	2.00	400	--	--	--	200	400
10-09	Goods Received Note No...	300	2.40	720	--	--	--	500	1120
15-09	Requisition Slip No...	--	--	--	250	2.24*	560	250	560
18-09	Goods Received Note No...	250	2.60	650	--	--	--	500	1210
20-09	Requisition Slip No...	--	--	--	200	2.42**	484	300	726

STORES LEDGER ACCOUNT FOR THE MONTH OF SEPTEMBER 2015 – WEIGHTED AVERAGE PRICE MTTHOD

$$\frac{(200 \times 2) + (300 \times 2.4)}{200 + 300} = \frac{400 + 720}{500} = 2.24$$

$$\frac{(250 \times 2.24) + (250 \times 2.6)}{250 + 250} = \frac{560 + 650}{500} = 2.42$$

INFLATED PRICE METHOD

✓ Used for materials subject to natural wastage.

✓ To recover the cost of materials such, materials are issued at inflated prices.

✓ In such cases, the cost of materials issued to production will be more than the original cost.

Eg., cost of coal per ton Rs. 75 Loss in handling 5%. Thus, cost of coal per ton issued to production.

$$\frac{100 \times 75}{95} = Rs.\,78.95\;per\;ton$$

SPECIFIC PRICE OR IDENTIFICATION METHOD

Used when it is possible to identify each lot of materials and its purchase price. Materials are issued at the price at which these materials are purchased.

BASE STOCK METHOD

The firm always keeps a minimum quantity of materials and it will be issued only in emergencies. The minimum quantity of materials so maintained is known as safety or base stock This base stock is always valued at the cost of the first lot and is treated as a fixed asset. This method is generally combined with LIFO or FIFO method. Any quantity over and above the base stock is issued on the basis of the method used as a combination.

HIGHEST IN FIRST OUT (HIFO) METHOD

Materials are issued in the order of the highest value of the materials available in the store. This method assumes that closing stock should always remain at the minimum value and is used at cost plus contracts or monopolistic firms.

MARKET PRICE METHOD

➢ Replacement price method or Realizable price method.

Replacement price is used for materials used for production process and realizable price method is used for materials stored for sale purposes.

➢ Cost is not considered the prevailing market price is considered.

Used for sending quotations, quotations reflect the recent prices.

➢ Helps to match current revenue with current cost – correct operating profit.

Used to determine the efficiency or inefficiency in buying.

STANDARD PRICE METHOD

The predetermined price. Issues are valued at this price Used by firms following standard costing The difference between actual purchase price and standard price is charged to an account known as "Purchase Price Variance".

Eg:- standard price is Rs. 10; actual purchase price of 500 units is 550.

Stores account   Dr 500
Purchase price variance   Dr 50
To supplier's or bank account   550
Credit purchase price variance account, if standard price is more than actual price.

There are two types of standards :-

    I.   Basic standard price

    II. Current standard price.

Basic standard price is the ideal standard fixed for a long period of time so as to help in forward planning.

Current standard price is the basic standard price adjusted to the current or prevailing market conditions.

Standard price method will not recover cost of material through production process and valuation of stock necessitate adjustments.

However, this method is easy to operate and help in ascertaining the efficiency or inefficiency of purchasing materials.

Efficient = Actual Purchase price / cost < Standard Price or cost

Example:–

The standard price of a material is fixed at Rs. 10 per unit. Prepare stores ledger account following standard price method. Also ascertain efficiency in purchases

Date	Particulars	Quantity	Rate
02-09	Received	2000	11
05-09	Received	1000	10
10-09	Issued	1200	--
18-09	Received	800	9
25-09	Issued	900	--
29-09	Received	500	12
30-09	Issued	1100	--

STORES LEDGER ACCOUNT FOR THE MONTH OF SEPTEMBER 2015 – STANDARD PRICE METHOD

Date	References	Receipts			Issus			Balance	
		Units	Rate	Total	Units	Rate	Total	Units	Total
02-09	Goods Received Note No....	2000	11	22000	--	--	--	2000	22000
05-09	Goods Received Note No...	1000	10	10000	--	--	--	3000	32000
10-09	Requisition Note No..	--	--	--	1200	10	12000	1800	20000
18-09	Goods Received Note No....	800	9	7200	--	--	--	2600	27200
25-09	Requisition Note No...	--	--	--	900	10	9000	1700	18200
29-09	Goods Received Note No...	500	12	6000	--	--	--	2200	24200
30-09	Requisition Note No...	--	--	--	1100	10	11000	1100	13200
Total		4300		45200	3200		32000		

Efficiency can be determined by calculating purchase price variance (by comparing the standard cost of materials issued with the actual cost material issued)

Purchase Price Variance = (Actual Units Received X Standard Price) – Actual Price Of Materials

= (4300 x 10)-45200 = 43000 – 45200 = -2200 (2200 unfavorable)

Another way, deduct actual value of closing stock from the standard value of closing stock.

A positive figure represent efficiency (favorable) and negative figure represent inefficiency

Standard value of closing stock (1100 X 10) =   11000

Less Actual value of closing stock   13200

= -2200 (2200 unfavorable)

PRICING OF RETURNS

Surplus materials may be returned to the store.

When materials are returned, it is to be recorded in the stores ledger.

- Returns can be priced in two ways:-
    1. At the price at which it was issued.
    2. At the current price.

Shortage or deficit found in stock verification is shown in the issue column by writing in "Credit Note No… in the particular column and the balance is shown as usual.

DETERMINATION PURCHASE PRICE

When materials are purchased in large quantities, the received materials may contain different grades with different values Though single purchase price is paid for the entire material, we have to find out the purchase price of each grade of materials In this case the purchase price of each material is determined on the basis of the ratio of their selling price or sales.

Eg:- A lorry load of materials of mixed goods was purchased for Rs. 9000. these were sorted out into the following grades, whose market rates are given below:-

Grade A	5000 units	Selling price @ Rs. 1.20
Grade B	3000 units	Selling price @ Rs. 1.00
Grade C	2000 units	Selling price @ Rs. 0.50

Determine the purchase price per units of each grade of materials assuming that all grade yield the same rate of profit.

ANSWER:-

Since all the grades yield the same rate of profit, the purchase price per unit of materials will be in direct proportion to the selling price of different grades of materials

Grade A	5000	@ Rs. 1.2	6000
Grade B	3000	@ Rs. 1.0	3000
Grade C	2000	@ Rs. 0.5	1000
TOTAL			10000

Thus, the cost of material is to be divided in the ratio of 6000:3000:1000 (6:3:1)

Cost price of Grade A will be Rs. 5400 (9000x6/10), and rate per unit will be

Rs. 1.08 (Rs. 5400 / 5000 Units)

Grade B Rs. 2700 and Rs. 0.90

Grade C Rs. 900 and Rs. 0.45

References

1. Shukla, M.C., Grewal, T.S. & Gupta, M. P. Cost Accounting: Text and Problems. S. Chand & Co. Ltd., New Delhi.

2. Arora, M.N. Cost Accounting – Principles and Practice. Vikas Publishing House, New Delhi.

3. Jain , S.P. & Narang, K. L. Cost Accounting: Principles and Methods. Kalyani Publishers, Jalandhar.

4. Usry, M. E. & Lawrence, H. H. Cost Accounting: Planning and Control. South Western Publishing Co.