

# **Overtime, Idle Time and Incentives**

## **Meaning of overtime**

Usually workers are supposed to work for a certain period of the day or week. It is called the regular work period while overtime is the work that takes place after the regular work period.

As per the provisions of Factories Act, overtime wages is the double the usual rates of wages. If the Factories Act provisions are not applicable, there is an agreement between the employer and employee. Generally, more wage rate is paid for the overtime engagement. All overtime work should be authorized properly. A responsible person is appointed or nominated to look after the overtime work of the workers.

A worker is not permitted to do overtime work without getting prior permission from the responsible person. A separate register is maintained for overtime work. The register contains the details like date, name and token number of the worker, the department for which the work is completed, time of engagement, name of supervisor, signature of the worker and supervisor etc.

The overtime wages is calculated separately and approved by the responsible official before making the payment. Equal chance is given to all workers to do the work in overtime. At the same time, no worker is forced or compelled to work in overtime.

Wages payable to a worker are calculated either at an individual rate of up to 9 hours per day and at double rates of time greater than 9 hours or at a single rate of up to 48 hours per week and more than 48 hours at a double rate, whichever is more beneficial to the worker. A double overtime rate is paid to give an incentive for late hours. Overtime paid overtime account is known as overtime bonus.

As a rule, overtime is not required because of the increased cost of production for the following reasons:

- (1) Overtime is paid at a higher rate.
- (2) Overtime comes in late hours when fatigue is tired and worker efficiency will not be as it was in normal time.
- (3) Workers will usually adopt the postponement of work to be done in overtime just to earn more wages.
- (4) Expenses such as lighting, supervision cost, wear and tear of machines, etc. will increase disproportionately.

## **Reasons for overtime**

Here are the two main causes of overtime. They are briefly explained below.

### **1. Schedule more production**

The production department can decide the production volume more over the normal production hours when workers ask to work overtime. Likewise, the company can decide to sell more. Now, workers are expected to work overtime. In this way, the production schedule is prepared to produce more units.

### **2. Rush orders, special orders or urgent orders**

The normal demand for the product can be met with the help of production made in normal business hours. In the event that a rush order, special order or urgent order is accepted, the company is obliged to employ its workers in overtime. If so, these accepted orders may be executed without any difficulty.

### **Advantages of Overtime**

The following are the advantages of overtime.

1. More benefits are derived from the same resources as men and machine.
2. Executing the order in due course through overtime.
3. Increase the company's reputation.
4. Regular customers can be satisfied.
5. Provide a basis for attracting new clients.
6. An additional gain is available to existing employees through overtime.
7. Market opportunity can be taken advantage of.
8. Damage materials can be used in time.
9. Some materials may lose their quality due to storage. The company uses such materials properly.

### **Disadvantages of Overtime**

The following are the disadvantages overtime.

1. It involves a high labor cost. The reason is that the overtime rate is higher than the normal rate.

2. Workers get tired during normal business hours. Thus, productivity decreased. It leads to less production in overtime.
3. The health of the worker is affected.
4. Workers may postpone work to be done in normal working hours to obtain more wages. The reason is that Overtime is high.
5. If the overtime is not distributed evenly among all workers, there may be discontent in some sections of the workers.
6. Overtime involves incurring more indirect expenses.
7. The machine working time may decrease due to continuous operation.
8. Overtime cannot be terminated as soon as it is submitted easily due to workers resistance.
9. Continuous prolonged work leads to fatigue and faulty discharge.
10. Workers can intentionally slow their performance in normal business hours to compel management to punish overtime.

### **Treatment of Overtime Premium:**

Regular paid wages form part of the direct labor cost or the indirect labor cost depending on whether the employment is direct or indirect while there is controversy regarding the overtime premium treatment. It is sometimes said that it is not reasonable to charge a certain job with the overtime premium just because it was done at the time of the overtime. To get rid of this injustice, regular wages are collected to allow the overtime bonus, and therefore, every job, whether performed in regular time or overtime, is charged at the same rate of wages.

This method of handling overtime bonus is appropriate when job sequencing is almost coincidental, but if overtime is required in the event of a quick work (or urgent job) based on the customer's request to complete it at a certain time, it is appropriate to ship the work bonus Overtime rush mission cost.

However, when overtime arises for any abnormal reason such as machine failure or power outages, the overtime bonus is excluded from the production cost and deducted from the profit and loss cost calculation.

### Illustration:

Calculate the normal and overtime wages payable to a workman from the following data:

<i>Days</i>	<i>Hours Worked</i>
Monday	8 hrs.
Tuesday	10 hrs.
Wednesday	9 hrs.
Thursday	11 hrs.
Friday	9 hrs.
Saturday	4 hrs.
Total	51 hrs.
Normal working hours	8 hours per day
Normal rate	₹ 1 per hour
Overtime rate	upto 9 hours in a day at single rate and over 9 hours in a day at double rate ; or up to 48 hours in a week at single rate and over 48 hours at double rate, whichever is more beneficial to the workman.

### SOLUTION

<i>Days</i>	<i>Total Hours</i>	<i>Normal Working Hours</i>	<i>Overtime Hours</i>	
			<i>At Single Rate</i>	<i>At Double Rate</i>
Monday	8	8	—	—
Tuesday	10	8	1	1
Wednesday	9	8	1	—
Thursday	11	8	1	2
Friday	9	8	1	—
Saturday	4	4		
Total	51	44	4	3

Normal Wages for 44 hours @ ₹ 1 = ₹ 44

Overtime Wages :

At single rate for 4 hours @ ₹ 1 = ₹ 4

At double rate for 3 hours @ ₹ 2 = ₹ 6

Total Wages

₹ 10

₹ 54

Or

Normal Wages for 48 hours @ ₹ 1 per hour =

₹ 48

Overtime Wages for 3 hours @ ₹ 2 per hour =

₹ 6

Total Wages

₹ 54

Therefore, whichever method is followed, the amount of the wages payable to the worker is ₹ 54.

## Meaning of Idle time

If workers are paid on the basis of time, some difference may arise between the time for which they are paid on the basis of time and the actual time they spend on production. The difference is called Idle Time, i.e., the employer pays but, in return, derives no benefit. In short, it explains the time for which wages are paid but produce no output or workers remain idle.

**Idle Time = Total Time spent by a worker – Actual Time spent on production.**

### Types of idle time:

#### 1. Normal idle time:

Regular idle time is an unavoidable loss of hours worked due to the usual workflow.

It includes:

- (I) Tea break, lunch break or lost time from the factory gate to the actual workplace;
- (II) The time lost during the period between the end of one post and the commencement of another.
- (III) Control of machines / tools or tools;
- (IV) Time lost to overcome fatigue.

Somewhat some of the above idle time may be controlled. The cost of normal idle time should be charged to the general expenses of the factory. However, if a certain administration is found to be responsible for this loss, the cost of time wasted must be charged to that particular administration.

The cost of normal idle time should be charged to the cost of production simply by inflating hourly wages, for example if idle time is considered 10% of total work hours and wages are paid for 8 hours rupees. 288, cost of labor Per hour. In this case it would be = Rs. 288 / 7.2 hours = Rs. 40 per hour.

#### 2. Abnormal idle time:

Abnormal time of inactivity is the time that can be avoided if adequate precautions are taken.

Some of them are:

- (I) Machine malfunction;
- (II) Power outages;
- (III) The material is not available;
- (IV) Strikes and closures;
- (V) Fire, flood and other hazards;
- (VI) Production bottlenecks;
- (VII) Discontinuation as a result of bad management decisions by the administration;
- (VIII) The excessive time taken to correct defects;
- (IX) Excessive automation, etc.

### **Causes of Idle Time:**

#### **(A) Administrative reasons:**

Here they are:

- (I) Employment of skilled workers in anticipation of future growth.
- (II) Unwilling to do skilled work during depression.

#### **(B) Production-related Causes:**

Here they are:

- (I) Plant / machinery collapse.
- (II) Awaiting work / raw materials / machinery.
- (III) Lack of energy / insufficient energy.
- (IV) Awaiting instructions from superiors / supervisors.

#### **(C) Economic reasons:**

Here they are:

- (I) cyclical fluctuations in product demand.

(II) Demand for seasonal product decrease during off-season.

(III) The general recession in the economy.

(IV) Reduced demand due to strike / closure, etc.

### **Treatment of abnormal idle time:**

Abnormal idle time can be treated in the following two ways:

#### **(A) Method of calculating profit and loss cost:**

The cost of abnormal idle time or deduction should be transferred to the profit and loss cost account. Under this method, the abnormal idle time cost is not treated as a cost but is treated as a loss to the company.

#### **(B) The general method:**

According to this method, abnormal idle time is part of the overhead of the plant. Consequently, the cost of lost time must be divided between the different departments to get an idea of the same thing which is very useful for the administration to take the appropriate remedial measures.

### **Idle time control:**

Idle time can be controlled as follows:

- (1) There must be planned production and appropriate supervision, so that idle time is minimized.
- (2) Jobs must be planned at hand so that workers do not have to wait for work.
- (3) Instructions and drawing must be clear so that workers are not confused or have to wait for clarifications.
- (4) Appropriate inspection and maintenance of the power plant should be performed to avoid frequent power outages.
- (5) Timely provision of materials, adequate maintenance of installations and machinery, and adequate power supplies will undoubtedly reduce the time of abnormal inactivity.

### **Types of Incentive Schemes**

#### **1. Halsey Premium Plan:**

This plan was introduced by American engineer F. A. Halsey, in 1891. It recognizes individual competence and pays bonuses based on preserved time. Under the method, the worker receives a wage according to the time average of the time he actually works, and he also pays a reward if he can complete the work in less than the time allotted to do the work.

The bonus is paid a fixed percentage of the time saved, usually 50%, (although the percentage ranges from 30% to 70% of the time saved). The employer shares the remaining 50% of the time saved.

And so on ,

$$\text{Total earnings} = T.T. \times H.R. + 50\% (T.S. \times H.R.)$$

Where, T.T. = Time spent

H.R. = Hourly rate

TS = saved time

**Advantages of the method are:**

- (I) The method is easy to operate and easy to understand.
- (II) Slow workers are not punished, because time is guaranteed.
- (III) Provide incentives for the most efficient workers.
- (IV) Efficient worker means lower unit cost.
- (V) The benefit of the time saved is shared equally between the employer and the employee.

**2. Halsey-Weir Premium Scheme:**

This chart was presented by Weir Ltd. of Glasgow around the year 1900. It is similar to the Halsey scheme except that under this system the employee gets 33% (often 30%) of the time saved as a bonus and the rest 66% goes to the employer.

And therefore:

$$\text{Total earnings} = T.T. \times H.R. + 33\frac{1}{3}\% (T.S. \times H.R.)$$

Where, T.T. = Time spent

H.R. = Hourly rate



TS = saved time

### 3 Rowan Plan:

Grams Rowan first introduced this plan in Glasgow in 1898. Under this scheme, the worker also gets a guaranteed time wage for his actual work hours, such as the Halsey scheme. But here the premium is calculated in a different way.

If the worker is able to complete the work in less than the allowed time, then his reward becomes equal to his time wage for that percentage of the time spent as he bears the time saved for the allowed time.

Thus, the reward is calculated as follows:

And, total profits =  $T.T \times H.R. + (T.T. \times H.R.) \times T.S./T.A.$

Where, T.T. = Time spent

H.R. = Hourly rate

TS = saved time

T. = Allowable time

#### Advantages of the scheme:

- (I) It provides incentives for slow learners and workers.
- (II) Since the installment is proportional to the time saved, employers receive protection if the rate is not set correctly.
- (III) From an employer's point of view, a Rowan chart is safer than a Halsey scheme.
- (IV) Up to 50% of the time saved, the reward under the scheme is higher than that under the Halsey scheme.
- (V) The higher the bonus at a decreasing rate, the staff will not be able to complete the work quickly, and thus less opportunities for waste, etc.

### 4. Taylor's Differential Piece Rate System:

This system was first introduced by F. W. Taylor, the father of scientific management. This system does not provide a guaranteed minimum wage.

But under the system, prices for two pieces are set:

(A) A lower production cutoff rate lower than the standard is paid to workers

(B) A higher percentage shall be paid to workers who produce one or more equal than the standard. Thus, this system punishes incompetent workers and rewards competent workers.

The efficiency of the factor can be determined as a percentage, either:

(1) From the time permitted to operate to the actual time taken, or

(2) From the actual output to the standard output, within a specified time.

### **5. Gantt Task and Bonus Plan:**

The plan is a good mix of timeshare and piece work. Under this scheme, daily worker wages are guaranteed.

The main features of the bonus system are:

Output - reward

At 100% - 20% on total output

Above 100% - 20% of the standard time wage, or high cutting rate over the worker's total production.

This system protects and encourages less efficient workers who cannot produce standard output. It provides a good incentive for skilled workers.

### **6. Emerson Competency Plan:**

This scheme is also a mixture of time wages, piece wages, and reward plans. Under this method, a standard time is assigned to each task, or the task or output size is fixed as standard. Standard efficiency is set at 66% or 67%. For an efficiency of up to 67%, the worker receives only his day's wages.

If he exceeds the standard task, he is entitled to a bonus and the bonus rate increases as efficiency increases. At 100% efficiency, the reward is 20%. Again, if the efficiency exceeds 100%, the bonus increases by 1% for each 1% increase in efficiency above 100%.

### **7. Group Rewards Plans:**

The incentive plans outlined to date are only applicable to individual workers. However, sometimes it becomes necessary to present a group bonus scheme. Under the plan, the bonus is

paid to the group as a whole, depending on the performance of the group and the bonus amount is shared by them evenly or at an agreed rate.

The group reward is appropriate in the following circumstances:

- (A) When it is very difficult to measure individual worker performance, but production can be measured through the collective efforts of a group of workers.
- (B) The nature of the work requires a collective effort.
- (C) Where it is desirable to develop team spirit.
- (D) Where direct and indirect workers are rewarded.
- (E) When the rewards scheme cannot be successfully operated for working individuals.

However, before submitting a group bonus scheme, the following points must be carefully considered:

- (I) A good mix between the group.
- (II) The size of the group must be economic.
- (III) The group must be homogeneous.
- (IV) The group's production must be under its control.

Thus, the collective reward scheme encourages team spirit, reduces waste, ensures collaboration, reduces supervisory work and reduces overall costs.