

# **UNIT 13: CONTACT MAINTENANCE**

- Contract Maintenance is defined as the contract between 2 parties which creates the agreement that one party will maintain an asset owned by another party, which is common across many industries.
- Maintenance contracts can exist for equipment, a building, landscape, computers and other information technologies, and more.
- The decision to perform a particular maintenance activity in house or through contract is usually decided by the head of the Maintenance Department.

## Possible Circumstances for availing Contract Maintenance

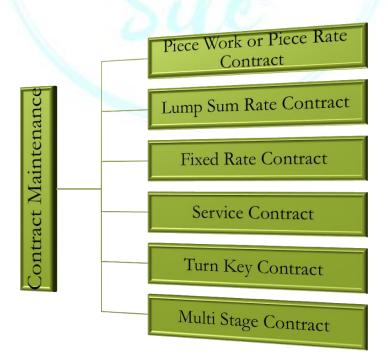
- While contract maintenance may cover all possible types of maintenance including routine, preventive a corrective maintenance, some specific areas or circumstances might require contract maintenance as mentioned below.
- Contract Maintenance may handle special needs of a property involving special equipment's or when such needs are infrequent in nature.
- E.g.: Fire Extinguishers, Lifts, Fire Alarm Systems, Detectors, Sensors etc.
- Contract Maintenance may be called upon for routine services such as janitorial services for all sorts of building interior cleaning.
- Ground maintenance and special maintenance needs like pest control activities (needing license from IPCA) are generally awarded to contract maintenance.
- In many properties, operation and maintenance of water treatment, sewage treatment and swimming pool maintenance are left to contract service owing to their very sophisticated nature.
- At small establishments, air conditioning and refrigeration units are also maintained through contract service.
- Special equipment's are often needed for cleaning kitchen ducting, grease trap, grease filters etc., and their maintenance is also often contracted out.



## Role of the Maintenance Department in Contract Maintenance

- 1. Apart from identifying the areas that need to be brought under contract maintenance and choosing an appropriate contractor the Chief Engineer has to also ensure the following.
- 2. The contract has to carefully framed to clearly define the definite area of work to perform.
- 3. The Maintenance department has to closely monitor and control the reliability and quality of maintenance being carried out by them.
- 4. Periodic review is to be made to ascertain the need of any change in the nature of the contract including a possible change in the contractor.
- 5. The access to the property in areas other than the area of work should be restricted for the employees of the contractor.
- 6. Behavioural Issues
- 7. The Chief Engineer has to ensure that the contractor is following required safety standards for their employees and they are covered by appropriate insurance policies.

# TYPES OF CONTRACT FOR MAINTENANCE SERVICES





#### Piece Work or Piece Rate Contract

- In this type of contract, the contractor has to quote separately for each item of work.
- E.g. If a Contractor has to maintain a set kitchen oven, replacement / repair of each items such as burner, valves, gas pipelines etc. could have different rates for maintenance.

#### **Lump Sum Rate Contract**

- In this type of contract, the contractor has to quote for maintenance of the equipment as a whole.
- This type of contract is usually availed for a specific one-time job on some specific equipment or group of machines or group of work.
- E.g. If a Contractor has to maintain a set kitchen oven including burner, valves, gas pipelines etc. he would charge a lump sum amount.

#### Rate Contract

- In this type of contract, the contractor agrees to supply items or labour at a fixed rate for a certain period usually for a year.
- It is also known as Annual Maintenance Contract.

#### Service Contract

- This type of contract is usually made for a year-round routine, usually involving preventive and scheduled maintenance of a plant/system and the contractor is needed to carry out these activities for a specific period of time.
- Maintenance contract of engines, air conditioning plant, swimming pool, water treatment plant etc. if they are contracted out, usually follow this type of contract

## **Turnkey Contract**

- This type of contract usually relates to execution of a job from scratch to finishing such as making a building from green field to a stage ready for possession.
- Supplying, installing and commissioning of a water treatment plant.



#### Multi Stage Contract

- This type of contract is awarded for a job segregated by different stages of execution of the job.
- This means that the contractor will have order for execution of a job subject to satisfactory completion of different stages.
- The contract awarding authority keeps the right to cancel the contract at any particular specified stage of the job on mutually agreed terms.
- E.g. Instead of awarding the whole contract of making a building, the contract may be made in stages where assessment for the job may be made after completion of each stage. The stages of contract could be laying the foundation, erecting the superstructure, completing brick work etc.

#### Cost Plus Fixed Fee Contract

A cost-plus fixed fee contract is a specific type of contract wherein the contractor is paid for the normal expenses for a project, plus an additional fixed fee for their services. The "fixed fee" portion of the contract may be subject to negotiation between the parties, and can therefore vary according to the needs in each project. Cost-plus fixed fee contracts are sometimes referred to as CPFF contracts, cost-plus contracts, cost-reimbursement contracts, and cost-plus fixed fee contracts.

#### When is a Cost-Plus Fixed Fee Contract Used?

Cost plus fixed fee contracts can be used when both the contractor and the owner agree that the contractor is entitled to a fee in addition to the project expenses. There may be various reasons for this agreement, but cost-plus contracts should also spell out the basic reasons that the contractor is entitled to the fee. There should also be provisions addressing what legal consequences should follow if the fee provisions aren't upheld.

#### What are Some Pros and Cons of Cost Plus Fixed-Fee Contracts?

Depending on the parties' needs, there may be different pros and cons to using a cost-plus fixed fee contract arrangement. In order to avoid a breach of contract, both parties should consider these aspects of cost-plus contracts.



### Some advantages of a CPFF contract can include:

The final cost may be lower than in a normal contract, as the contractor usually will not "inflate" prices to cover risks

The contractor also has less incentive to control the project costs (in contrast to other types of contracts, such as a fixed-price contract)

They can often ensure higher-quality output than normal contracts

### Disadvantages of cost-plus fixed-fee contracts may include:

The final, overall cost may not be very clear at the beginning of negotiations

May require additional administration or oversight of the project to ensure that the contractor is factoring in the various cost factors

May be less incentive to complete the project in an efficient manner, compared with fixed-price contracts

Thus, both parties should weigh all the pros and cons before entering into a cost plus fixed-price contract.

Again, each contract will be different, depending on the type of project involved and the relationship of the parties.

## ADVANTAGES OF CONTRACT MAINTENANCE

- Reduction of total labour cost.
- Reduction of cost of carrying inventory and special maintenance equipment.
- Use of latest techniques and methods of maintenance.
- Saving in administrative time on the part of the engineers when they can concentrate more on planning, etc.
- Structure and infrastructural facilities of the in-house maintenance department need not change due to introduction of new equipment's with sophisticated technology.
- Flexibility to meet emergencies
- Reduction of labour problem.
- Need to recruit and train employees is eliminated.



### **DISADVANTAGES OF CONTRACT MAINTENANCE (Potential)**

- Labour cost is not really saved unless the actual number of in-house maintenance staff is reduced.
- Revision of contract fees in subsequent years often leads to escalation of total cost if not properly negotiated and controlled.
- Often the specialized nature of the maintenance would lead to high charges for such contracts leading to a overall increase in maintenance cost compared to if it were maintained in house.
- At the time of bidding, lack of initiative on the part of the Chief Engineer would often lead to a non-competitive price quote by a handful on contractors.
- Reduction in the number of specialized in-house maintenance crew may result in their unavailability in case of an emergency requirement for some other facility.
- The Chief Engineer does not get any information feedback regarding the status of the equipment under contract maintenance, except in case when it completely breaks down.
- Loss of control over contractor employees.

### TENDERING PRACTICES

- For every organization, there are definite laid down procedures by which these external agencies are identified and the contract is awarded.
- One of the most commonly used practices is known as 'Tendering'.
- TENDERING can be defined as a formal offer to supply specified goods or services at a stated cost or rate.
- The tender inviting authority shall decide the most suitable method of tendering to be followed in each case having regard to the category, size and complexity of the job.



### **DIFFERENT STEPS OF TENDERING PROCESS**



### FRAMING OF A TENDER COMMITTEE

A tender committee is formed usually in case the tender value is high, typically more than 15000 or so as decide by the organization as its policy. A tender committee should consist of at least one member from the Accounts Dept., one from the maintenance dept., and one from the concerned dept., who raises a requisition for the job / item.

## **DECIDING ON THE TYPE OF CONTRACT**

De	pending	on	the	natur	e o	f item	or	job	the	contr	act	type	would	be	as	fol	lows
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1. Piece _	
2. Multi _	
3. Fixed _	
4. Lump _	
5. Turn	<del></del>
6. Service	



### PREPARATION OF TENDER DOCUMENT

This is one of the most important activities in the tendering process where technical, legal and financial aspects are to be analysed carefully and documented. These are then released for circulation by any of the available means as discussed by the management.

### <u>CIRCULATING NOTICE FOR OBTAINING TENDERS</u>

The following are amongst the different methods of obtaining tenders that may be adopted:

- 1. By Public Advertisement: Notice inviting tender is given by publishing in national dailies and / or by uploading on website of the organization. (Open Tenders) It contains important details such as description of work, completion period, date of opening, date of closing, cost of tender form, earnest money, approximate estimated cost of tendered work, minimum eligibility criteria etc.
- 2. By direct invitation to a limited number of firms / contractors. These are called Limited tenders.
- 3. By invitation to one firm / contractor only. These are called 'Single Tenders'.
- 4. E- Tendering: Tenderer's may download the tender documents from the designed website free of cost, without any hindrance, for open tenders of value exceeding 10,00000 rupees.

### **SUBMISSION OF TENDERS**

The tenderer's have to submit their offer in the way described in NIT along with an earnest money deposit usually not exceeding 1 per cent of the total tender amount.

Two cover Tendering – It is a procedure under which the tenderers are required to submit 2 separate sealed covers, one containing the earnest money deposit and the details of their credentials and technical capabilities and the second cover containing the price quotation.



### **EVALUATION OF TENDERS**

The tenders are shortlisted by the following criteria

- Experience and passed performance in the execution of similar contracts.
- Capabilities of the tenderer with respect to personnel, equipment, facilities etc.
- Financial status
- A statement of comparative rates and other important tender conditions is prepared, tabulated for all tenders received.
- This comparative statement is prepared by the maintenance Dept. and verified by the Accounts Dept.
- This tabulated statement is then forwarded to the tender committee.
- A meeting is conducted after consideration of all shortlisted tenders.
- Out of the tenders found to be acceptable, the tenderer who has bid the lowest evaluated price in accordance with the evaluation criteria is identified.

# **ACCEPTANCE AND FINALISATION OF TENDERS**

- The tender committee puts up the minutes of the committee to the accepting authority.
- The accepting authority may accept, reject or modify the recommendations of the tender committee.
- After a particular bidder is selected an agreement is signed and the selected bidder has to deposit an amount as mentioned in the tender.
- This amount is kept as a security deposit so that the contractor fulfils the terms and conditions of the contract and carries out the work satisfactorily.
- In case there is a lapse from the contractor the whole or a part of this deposit is forfeited.
- The amount normally does not exceed 10% of the contract value.



## **CONCLUSION**

- Contact Maintenance is the maintenance activity that pertains to maintenance of systems by outside agencies.
- It is the whole a sole decision of the Chief Engineer to decide whether a particular maintenance activity should be performed in house or through contract.
- Type of contract for the maintenance service varies for the type of maintenance to be carried out.
- For every organization, there are definite laid down procedures by which the contract is awarded.
- One of the most commonly used practices is known as 'Tendering'.

