



# UNIT-13

## Legal Aspects of Contracts

Staff Training Solutions

### Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ Explain the various types of construction contracts
- ✓ Understand the types of construction contracts
- ✓ Discuss and appreciate consumer protection

## Unit 13

### Legal Aspects of Contracts

#### Introduction

Before a construction project begins, the owner and selected contractor have to sign a contract, which lays down the terms and conditions and other relevant specifications. In the event of disputes, an arbitration board may be set up to resolve them.

This unit will highlight the different types of contract that can be drawn up and how disputes can be settled in the course of the project.

#### Definition of a Contract

Any agreement backed by law is known as a contract. Only those people who have signed the contract are bound by its terms and conditions, as well as the benefits and losses resulting from the agreement. The contract may or may not make provision for third parties. Third parties should not benefit or suffer from the contract unless they are included in it. The laws which govern contracts are usually based on local and state laws or they may be based on the location of the parties signing the contract.

Disputes may be settled by the engineer-in-charge or the courts. In the event of a dispute, the engineer's decision shall be accepted as final, provided both parties have already agreed to this course of action. Alternatively, aggrieved parties may go to court if they disagree with the engineer's ruling.

#### Essential Elements of a Contract

The law only recognises contracts containing certain essential elements; otherwise, the contract shall be declared void. Elements of a valid contract are as follows:

##### 1. Agreement

Contracts require both parties to agree to the terms and conditions. They must be written in an unambiguous or non-ambivalent manner. Contracts should be simple and crystal clear in meaning to all signatories. An agreement is finalised when parties append their signatures to the contract. There is provision to nullify any contract if it turns out that there was no actual agreement between the parties.

##### 2. Lawful Subject Matter

No contract signed must contravene the rule of law, state laws and public policies. Any contract which contravenes any of these conditions is declared illegal subject matter. Examples of illegal contracts include contracts involving fraud, arms, collusion, gambling and speculation. Care must be taken to ensure that the subject matter of a contract is not against public policies. Subject matter must not lead to monopoly or be against the interests and progress of the state or the

public. Contracts are binding on people who have signed them ignorantly without understanding the implications of their contents.

### 3. Valid Consideration

Consideration means the undertaking of reciprocating actions by parties who have signed a contract. Considerations have to be real, valid and valuable for the contract to be legal. The law protects all considerations and does not judge whether the contract is fair or not. The law will, however, arbitrate in situations involving liquidated damages or debts. Acts of God, unilateral promises, and impossible promises are not enforceable by law because they are not viewed as real considerations. All considerations need to be stated unambiguously in the contract and not implied, in order to avoid misinterpretation.

### 4. Competent Parties

Only persons who are sane, sober and not minors can legally sign a binding contract. A drunken person 'who knows what he is doing' may sign a valid contract provided it has been 'made in good faith'. The law governs competency issues at all levels of the contract. It restricts the type of contract a corporation may enter into and the extent to which the contracting parties may exercise their technical competency in executing a project.

When a contract with a private corporation fails because the firm was incompetent, the corporation may be able to obtain compensation for services rendered. However, cancellation of a contract with a public corporation does not warrant the payment of any compensation as a result of incompetence.

## Provision of the Law with Regard to Form

The law requires certain types of contracts to be in writing. These contracts include:

- i. Contracts relating to the sale or lease of land and expressing interest in land
- ii. Promise to pay a claim
- iii. Making payment for debt or paying for someone who has defaulted
- iv. Agreements which are not expected to be performed within a year of signing
- v. Contracts for the sale of equipment

Individuals, partnerships or corporations may sign contracts with the contracting party. The entity that has qualified to sign a contract must ensure that 'the names or legal titles' of the signatories and their business addresses are included in the contract. In addition, stamp seals or embossments may be incorporated into the contract.

The contract must also highlight the scope of service, the expected date of completion, the level of performance expected and other pertinent aspects of the project which are of the highest priority. Signatures must be appended to these milestones or highlights by authorised persons representing all parties signing the contract.

## Types of Construction Contract

### 1. Competitive bid contracts

- a) Lump sum contracts
- b) Unit price contracts
- c) Combined lump sum and unit price contracts

### 2. Negotiated contracts

- (a) Cost plus percentage of cost contracts
- (b) Cost plus fixed fee contracts with a profit-sharing clause
- (c) Cost plus fixed fee contracts with a bonus clause
- (d) Cost plus a sliding scale of fees contracts
- (e) Cost plus a guaranteed ceiling price contracts
- (f) Management contracts
- (g) Architect engineer management contracts
- (h) Combined engineering and construction contracts
- (i) Joint venture contracts
- (j) Incentive-type contracts
- (k) Equipment rental contracts
- (l) Guaranteed maximum cost contracts

## Competitive Bid Contracts

This type of contract involves awarding a contract to the lowest-bidding party who is qualified to undertake the project. The winner is expected to have significant working capital. The bid winner should also be free from all litigations; he must not have defaulted at any time and must be willing to provide the needed guarantees and sureties for the project. Selection of the winning bid is made either by the owner or by the project engineer.

## Lump sum Contracts

This contract involves the provision of a fixed amount for the whole duration of the construction project. It can be paid in instalments or be tied to completion of each phase of the project. This contract assumes advanced knowledge of the scope of work and all associated risks. It also assumes all bills of quantities submitted are identical. This type of contract is ideal for standardised construction projects where the quantities of resources required as well as the detailed specifications and all associated costs are specified in the tenders. The main advantage of this type of contract is that no extra personnel will be required for inspection work and for determining the monthly rate of material consumption.

## Special Features

- i. The contractor may order extra items or even omit some of them
- ii. Only variations, extras or omissions of work need to be re-measured, not the whole work
- iii. The contractor is given access to the site to access conditions prevailing before starting work
- iv. Working conditions and date for completion of the project are usually determined in advance
- v. Excess variations and omissions are not permitted
- vi. Full details or descriptions of drawings and specifications are provided

A lump sum contract is unsuitable for the following:

- i. When dealing with difficult foundation works
- ii. Works which are difficult to estimate due to the difficult conditions of the soil structure at the site, e.g. excavation involving rocks.
- iii. When alterations or additions have to be included in the work
- iv. When extreme weather conditions prevail at the site.

## Unit Price Contracts

This type of contract requires the price per unit item and an estimate of total quantities of items to be determined in the tender bid. The winning tender is the one that offers the lowest price when the overall cost of items has been computed. Payment is made when agreed schedules of work have been completed.

The unit price contract is suitable for projects in which it is not possible to quantify the amount of work to be done or when constructing large quantities of a few types of construction. The scope of work, the nature of the work and detailed designs, drawings and estimates should be provided to help the contractor determine how much work needs to be done and potential problems to anticipate.

Supplementary drawings should be prepared after the contract has been signed. The information contained in these drawings is important for procuring the necessary materials and serves as a guide to undertaking the actual work. It can also be used to prepare detailed drawings. As the work progresses, the owner and the contractor will be obliged to perform more independent calculations and analyse all results to guide them in procuring more materials.

## Combined Lump Sum and Unit Price Contracts

Useful features of the lump sum and unit price contract may be combined under certain conditions to arrive at a combined contract. When it is difficult to determine the total quantity of items or amount work to be done, the unit price method may be applied. When certain sections of the work can be readily estimated and the exact quantities calculated, a lump sum payment can be issued. This type of contract is suitable for constructing buildings.

## Negotiated Contracts

A negotiated contract is awarded based on the contractor meeting certain criteria such as having the right equipment or facilities, the right expertise and previous experience. Negotiated contracts are prevalent in private sector construction and usually require the contractor to invest his own capital in the project. The owner repays the cost of the project plus compensation for the use of the contractor's facilities and expertise required to complete the job.

Negotiated contracts take the form of cost-plus contracts with the owner controlling expenditure through approval of purchase orders, salaries of workers and contractor's expenses. Overhead costs may form part of the level of compensation or may be paid separately. Lump sum and unit price contracts may also be negotiated. Cost accounting and a suitable methodology should be used to determine the actual cost of work.

## Cost plus Fixed Fee Contracts with Profit-Sharing Clause

In this contract, the contractor takes a fixed percentage of the total cost of the project as his profit. This type of contract is not recommended because there is the danger of the contractor inflating the cost of construction in order to make more profit. For example, he may inflate the workers' wages or the cost of materials. The main advantage of this type of contract is that work may start before plans are fully drawn up. This means that the owner may make modifications to the original plan as work progresses.

## Cost plus Fixed Fee Contract with a Profit-Sharing Clause

The owner and the contractor negotiate for a fixed price for the cost of construction. The contractor is reimbursed the full cost of the project plus the fixed price for completing the work. Usually, the scope of work has to be clearly specified in order to determine the actual cost of construction. Since the contractor's overhead expenses are directly linked to the cost of construction, it will be in his interest to keep costs down and maximise his profit. Provision is made to include a profit-sharing clause in the contract so that any savings made during construction may be shared between the owner and the contractor. The contractor may take home about 25-50% of money accruing from the savings.

## Cost plus Fixed Fee Contracts with a Bonus Clause

This type of contract is ideal when the owner wants the project to be completed in record time. The contractor is paid the cost of construction, the normal fees for completing the job and an additional fixed bonus for each day, counting from the day of completion up to the actual date the work was expected to have been completed, provided the work was finished ahead of time. Penalty charges are applied for each day of delay if the contractor is unable to complete the project on the expected date.

## Cost plus Sliding Scale of Fees Contract

This type of contract uses mixed features of cost plus fixed fee contract and cost plus percentage contract. Generally, the cost of construction is estimated and the contractor is paid a fixed fee for

completing the project. If the cost of construction increases by a certain amount, the contractor's fees are reduced by a specified fixed amount until a minimum guaranteed fee is reached. On the other hand, if the cost of construction decreases by a certain fixed amount, the fees are increased according to agreed rates. This scenario is referred to as the sliding scale of fixed fee. This type of profit-sharing contract serves as an incentive to the contractor to find ways of reducing the cost of construction.

The formula for determining sliding scale fees is given by:

$$F = R(2T - A)$$

where R is the base rate, T is the target cost and A is the actual cost.

### Cost plus a Guaranteed Ceiling Price Contract

This type of contract serves as a much improved type compared to the cost-plus types in which the plans are not fully developed for the total cost of work to be estimated. The cost-plus types are disadvantageous to the owner. However, the cost-plus guaranteed contract requires plans to be completely developed to aid cost estimation. This enables the owner to fix the maximum construction cost for the contractor. The contractor is paid the cost of work plus a fixed fee provided he does not exceed the maximum expected cost. If he does exceed the limit, he is not paid any compensation.

### Management Contracts

This contract type is not the conventional type of contract in which a contractor makes a profit from subcontractors working for him. A management contract does not allow such profit-making ventures. Rather, it makes use of contractors with high technical ability, integrity and administrative skills to undertake managerial functions. The contract may specify that the contractor undertake only the managerial function of supervising all aspects of the project including labour and the purchasing of materials or the use of his own facilities to execute part of the work.

### Architect-Engineer Management Contract

This involves hiring a single firm of engineers or architects to execute all aspects of the project from design to planning and management. This type of contract was mainly used in the USA during World War II for military and industrial projects. It is not recommended for undertaking large-scale projects.

### Combined Engineering and Construction Contracts

This is also known as the 'turnkey project' requiring the services of a single organisation capable of both engineering and construction. Details of planning design and specifications are covered in the contract which is usually a cost-plus type of contract.

The engineer works in the interests of the owner by inspecting and supervising construction activities. He may also act as an arbitrator in the event of a dispute between the contractor and the owner. This type of contract is usually not recommended.

## Joint Venture Contract

This involves several companies combining into one entity to share their assets and workforces in order to tackle large-scale construction projects. Factors such as finance administration and resource management are performed by the joint venture company and are normally specified in the contract. The various companies also share all associated risks, profits and losses. This kind of arrangement is usually a temporary one between the individual companies. The individual companies may sign any variation of contracts between themselves, with details clearly specified in the contracts and subject to the owner's approval.

## Incentive-Type Contract for Work outside the Country

This type of contract is awarded to contractors willing to undertake projects overseas. The conditions of work may be fraught with uncertainties and danger and generally unfavourable in terms of resources required. This contract basically consists of cost-plus base fee plus incentive for executing the project at low construction cost. It is not recommended for local or domestic projects due to its complex nature.

## Equipment Rental Contracts

A contractor may rent equipment to execute contracted projects. With regard to cost-plus type contracts, the owner is usually an integral part of decisions relating to equipment rental. Other types of contract may not require any input from the owner; it is left entirely to the renter and the contractor to reach mutual agreement on terms and conditions of use. Equipment may be rented and charged on a daily or hourly basis or based on a lump sum payment. The renter may include a recapture condition when a certain level of work milestone is exceeded or the contractor breaches the terms and conditions of the contract.

## Guaranteed Maximum Cost Contract

This type of contract is in many ways similar to the cost-plus guaranteed ceiling price contracts. In the guaranteed maximum cost contract, the contractor is allowed to provide an accurate estimate of the cost of construction from plans and specifications. The cost estimate is taken as the maximum allowable cost to the owner. The contract stipulates that the contractor does not exceed the maximum amount. If the contract does exceed the maximum guaranteed cost, he would have to pay for the extra cost. Provision is made for a bonus when savings are obtained on completing the structure. The savings are normally shared between the owner and the contractor.

## Purchase Orders as Contracts

A buyer and a vendor may enter into an agreement by signing a purchase order with terms and conditions as well as other detailed specifications agreed to. The buyer might be either the owner or the contractor. The vendor is the supplier of the materials. In order to enter into a formal purchase order contract or agreement, the buyer or the contractor has to prepare a purchase form with all terms and conditions included, filled by the buyer and signed by both parties. Terms, conditions and clauses may

include guarantees, taxes, credit, discount, mode of delivery, terms of payment and the like. The buyer may use the purchase order as a basis for resolving any future dispute relating to the items ordered.

## Subcontracts

A subcontract is an agreement between the prime or main contractor (who has been awarded the main contract by the owner) and subcontractors who are employed to undertake specialised duties such as electrical work, mechanical work, HVAC, lift installation, etc. The subcontractor is also bound by the terms and conditions of the main or prime contract signed between the owner and the main contractor. The main contractor's function is limited to coordinating the activities of all subcontracted personnel to ensure they perform their assigned duties to the specified standard. Other duties expected of the main contractor include masonry, carpentry, concreting and paint jobs, etc.

The agreement between the main contractor and the subcontractor can be a written acceptance letter by the subcontractor or an oral agreement. Important projects require a formal agreement containing details of the scope of work, duration, payment terms, rights and responsibilities and other pertinent specifications for the job. The owner holds the contractor, rather than the subcontractor, responsible for all work done. However, the owner may request a 'surety bond' from the main contractor to guarantee prompt payment for all services rendered by subcontractors to prevent aggrieved parties from taking legal action against the owner of the project. The main contractor must also submit to the owner releases from all claims for the work done by all subcontractors.

Contracts for subcontractors are awarded on a competitive basis in order to minimise costs with the approval of the Site Engineer. Three bids from the subcontractors may be accepted for each category of work. The engineer also protects the interests of the owner by ensuring that the main contractor enters into the right type of contract with the subcontractors. The lump sum or unit price type of contract is acceptable but the cost-plus type is not recommended for subcontractors.

The main contract dictates how much work will be performed by the subcontractors. If the contract is a cost-plus fixed type, the main contractor may carry up to 80% of the work with the remainder going to the subcontractor. On certain occasions, the entire project may be undertaken by subcontractor with the main contractor acting as the general manager.

## Awarding Contracts

Awarding contracts to subcontractors is usually the prerogative of the main contractor because he is ultimately responsible for the quality of their work. Notwithstanding this, the owner may also want to be part of the process to safeguard his interest by appointing an engineer to be part of the selection of subcontractors. The subcontractors may enjoy a level of protection from the owner provided the owner requests a list of subcontractor bids as part of the main contractor's bid. Thus, there will be no bargaining between the subcontractor and the main contractor who may want to negotiate the price downwards in order to increase his profit. Only bids satisfying selection criteria based on the bill of quantities, design and specifications should be considered. All contracts awarded should specify the working conditions and responsibilities of the main contractor and subcontractors as well as how resources should be shared between them.

## Selection of Type of Contract

It is incumbent on the owner to select the most suitable type of contract with the help of the project engineer. The choice between a negotiated and competitive bid contract should be determined according to which one gives a comparative advantage. Competitive bid contracts are suitable when the owner has time at hand and detailed plans are available to plan costs and the scope of work. Here, the owner has more control over how the project is executed by undertaking regular quality control inspections. Lump sum or unit price contracts may be chosen depending on the type of construction. Negotiated contracts are suitable for projects requiring fast completion when only partial design and specification details are available to start the project. The cost-plus-fixed-fee contract may suffice on such occasions. The various types of contracts should be analysed carefully depending on the nature of the project and the reputation of the contractor in order to determine the best option. Negotiated contracts could also take the form of lump sum or unit price contracts provided complete plans and specifications are available, but the best choice is a competitive bid contract.

## Project Insurance

The purpose of securing insurance for construction projects is essentially to protect properties from damage in the event of an accident. Insurance must cover the full cost of all project-related resources. Insurance usually covers specific risks inherent in the types of work being undertaken. There may be standard insurance policies for marine construction, building construction, bridge and tunnel constructions. The exception to the rule is highway construction contracts which require no insurance but pay only for damages caused by 'acts of God' such as earthquakes, tsunamis, flooding or volcanic eruptions and pay nothing for mistakes or accidents. The contractor bears the responsibility for paying for all other damages or accidents excluding 'acts of God'.

## Insurance Contracts and Claims

### Insurance Contracts

The insurance contract forms part of the main contract between the owner and the contractor. It covers all aspects of the construction project including employer's liability, damage to property, workers' compensation and general liabilities. The type of contract will determine whether the owner or the contractor assumes responsibility for the property insurance component. The insurer, by entering into a contract with the policy buyer, accepts responsibility for any damage or loss during the course of the project. The policy, however, does not cover liabilities due to negligence or oversight by the contractor and claims cannot exceed the cost of damages or loss.

### Insurance Claims

Proper documentation of all accidents, damage or losses involving property or employees should be retained to facilitate claims from the insurer. It is expedient to select someone to take charge of all matters relating to insurance policies, claims and contractors' certificates. The person in charge of the project's insurance issues is also required to apply for new policies, cancel existing ones or apply for renewal of policies.

## Procedures for Disputes at Law

It is important to set up a dispute review board to resolve disputes in a fair manner. The function of the board is to settle misunderstandings between the owner and the contractor informally. It is not a substitute for the formal law court option. The aim is to promote cordial relationships between the protagonists by resolving issues amicably and informally and to prevent litigation. The board is expected to be impartial and highly professional. Selection of board members is done by the owner and the contractor. The board meets quarterly to discuss the latest developments at the site and its members are furnished with progress reports to keep them updated. The views of the board on any particular dispute should be accepted as final. Aggrieved parties may decide to seek redress in a court of law if they are not satisfied with the ruling of the board.

## Consumer Protection

Governments around the globe are taking consumer protection seriously by establishing consumer protection offices to deal with consumer complaints. Duties of consumer establishments include:

- i. Providing suitable venues for receiving and investigating complaints from the public
- ii. Helping to settle disputes between the consumer and the offending party
- iii. Drawing up new legislation
- iv. Undertaking continuous education of the consumer on how to protect him/herself from becoming a victim of fraud and how to claim compensation if he/she is victimised.
- v. Promoting business self-regulation
- vi. Working in partnership with other agencies such as the Chamber of Commerce and judicial departments
- vii. Alerting government agencies to fraudulent activities
- viii. Managing consumer protection activities of governments.

## Mediation

Sometimes, disputing parties may seek the services of an expert in construction to help settle disputes at the earliest possible opportunity. The third-party mediator tries to help the disputing parties to reach a settlement by mutual consent. Both parties present their cases to the mediator for analysis. The mediator, after studying the case, then approaches each party to give his opinion on the case and suggests solutions to them. The proposal may be accepted or rejected. There is an opportunity for arbitration if the proposal is not accepted.

## Arbitration

Certain contracts make provision for settling disputes by arbitration. The rules governing arbitration may differ slightly but they have similar characteristics or procedures as the courts. An arbitration board is set up when each disputing party nominates a member to the board. The members of the board are allowed to choose a third person who is also an expert in construction to join them. The arbitration hearing is similar to court proceedings in which submissions are recorded in transcripts. The contractor who is disputing with the owner submits a statement of complaints, documents of facts, and a history of correspondence between the parties. The lawyer for the contractor instructs his client and witnesses on how to make presentations at the hearing. Witnesses must be given the opportunity to refer to the records present during cross-examination.

The owner also steps up to give his/her version of events. Based on all evidence presented, the arbitration board presents its 'impartial' findings to the parties. The initial contract may specify whether the arbitration ruling is final or not. If the ruling is final, both parties are expected to accept it. Otherwise, they may resort to the courts.

### Further Reading:

- ✓ J. R. Murdoch, Will Hughes (2000), *Construction Contracts: Law and Management*
- ✓ Justin Sweet, Marc Schneier (2013), *Legal Aspects of Architecture, Engineering and the Construction Process*
- ✓ M. P. O'Reilly (2009), *Civil Engineering Construction Contracts*