

COURSE TITLE

CONSTRUCTION ENGINEERING AND MANAGEMENT

Chapter 6

CONSTRUCTION DELAY, DISPUTES AND CLAIMS

Lecture 6 (week 6)

Construction Delay, Classification, Types, Construction Claims, Disputes and its Management

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Learning Objective

The main objective of this lecture is to understand about:

- 6.1 Introduction to construction delay.
- 6.2 Classification of construction project delay.
- 6.3 Types of construction delay.
- 6.4 Construction claims.
- 6.5 Causes of construction claims.
- 6.6 Construction disputes and its mitigation.

6.1 INTRODUCTION TO CONSTRUCTION DELAY

Time is the essence of a construction contract. Typically, a time period is specified as the contract duration. The construction duration of the project is affected by the vast number of the factors and to varying extents. The contractor is obliged under the contract to achieve substantial completion within the specified period. Unfortunately, unexpected events can happen during the life of construction project and can affect the construction time necessary for the completion of the work.

When a contractor fails to complete the project within the contract period, delay becomes the reality of the project. [1]. A construction delay is defined as “the time during which some part of the construction project is completed beyond the project completion date(s) or not performed as planned due to an unanticipated circumstances”. [2] Construction delays are considered as time lag in completion of activities from its specified time as per contract or can be defined as late completion or late start of activities to the baseline schedule, directly affecting specified cost. [3]

Finishing a project on schedule is a difficult task to accomplish in the uncertain, complex, multiparty, and dynamic environment of construction. Thus it has been common for construction project to encounter delays. Many projects experience extensive delays and thereby exceeds initial cost and time estimates. The project facing delays are basically in traditional type of contracts in which contract is awarded to the lowest bidder which is the awarding strategies of public projects in developing countries. Delays on a construction site are normally inevitable and, as a result, many claims arise with few of them ending up in litigation.

Causes of Construction Delay

The construction duration of the project is affected by the vast number of the factors and to varying extents. The construction industry is facing delay is due to

- (a) Problem of shortages or inadequacies in industry infrastructure, mainly supply of resources.
- (b) Problems caused by clients and consultants.
- (c) Problems caused by incompetence of contractors.

The main contributors for the delay of the construction project are Owner, Consultant and contractor. Apart from that the external factors and other social, political, physical and economic factors and force majeure (fire, flood, inclement weather, natural disaster etc.) are also the contributors for the delay.

Client related factors

- Include finance and payments of completed work,
- Owner interference,
- Slow decision making and unrealistic contract duration imposed by owners.
- Delay in supply of Power, Water and others facilities.

Consultant related factors

- Include contract management, preparation and approval of drawings, quality assurance/control, and long waiting time for approval of tests and inspections.

Contractor related factors

- Site management,
- Improper planning, and inadequate contractor experience,
- Mistakes during construction,
- Improper construction methods,
- Lack of use of unnecessary modern construction equipment (cranes, pulleys, excavator etc.)
- Delays caused by subcontractors.

Material factors

- Include quality and shortage

Labor and equipment factors

- Include labor supply, labor productivity, and equipment availability and failure.

Contractual relationship factors

- Include major disputes and negotiations during construction, inappropriate organizational structure linking all parties involved in the project and lack of communication between these parties.

External factors

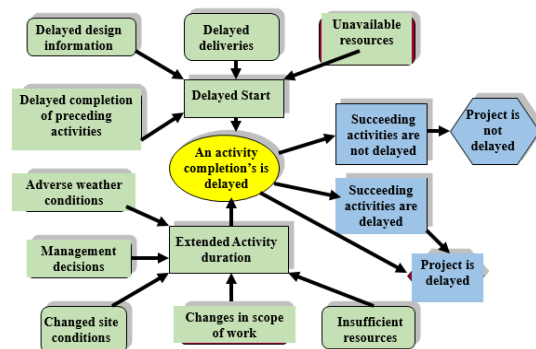
- Include weather conditions, changes in regulations, problem with neighbors and site conditions.

Force Majeure

- Includes Flood, Fire, and Other Natural Disaster.

Occurrence of Construction Delay

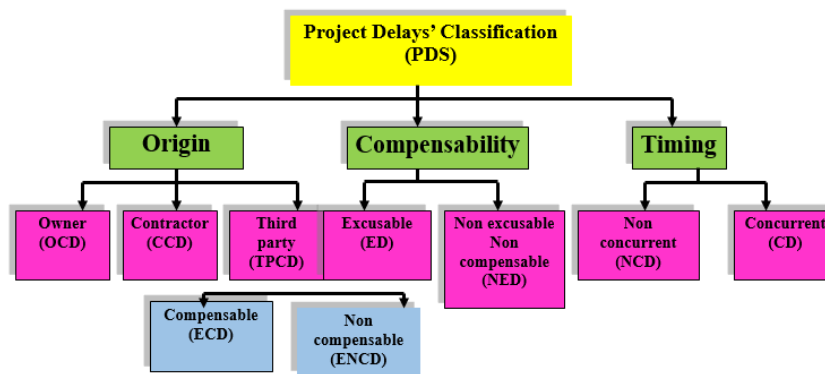
A project consists of collections of activities. An activity's completion may be delayed due to a delayed start or extended activity duration. While an activity's start may be delayed due to certain other reasons, its duration may be extended due to some other reasons. An activity's delayed completion may cause delays in the succeeding activities, which in turn can cause a delay in the project completion. Delays can occur in any and all activities, and these delays can concurrently or simultaneously causes delays in the project completion. In other words, a project delay is the accumulated effect of the delay in individual activities.



Source: [1]

Fig: Cause-Effect Relationship of Construction delays

6.2 CLASSIFICATION CONSTRUCTION PROJECT DELAY



Source: [4]

Delay Classified by their Origin

Project delays can be generated by various causes. Some of those causes are the owner's responsibility, which results in owner caused delays (OCD). Some are the contractor's responsibility, which results in contractor caused delays (CCD). Some are neither party's sole responsibility, which results in the third party caused delays (TPCD).

Delay Classified by their Timing

The timing of a delay is crucial for determining whether the delay is compensable or not. Delays can either occur concurrently or non-concurrently. Concurrent delays (CD) are those delays that occur when more than one delay that is caused by different parties coincide. For example, Concurrent delay (CD) occurs when OCD and CCD coincide in time. Non-concurrent delays (NCD) are those delays that occur alone at the time in which the delay took place.

Delay Classified by their Compensability

Excusable Delays (ED)

Excusable delays are caused by conditions that are reasonably unforeseeable and not within the control Contractor's control. ED are those delays in which the contractor is excused from their sole responsibility. The owner grants a time extension equal to the magnitude of the delay impact for the contractor to perform the work. These delays can be categorized into two types in terms of their compensability. All excusable delays are compensable.

Excusable compensable delays (ECD)

ECD are those delays in which the contractor is excused from the responsibility of the delay and is compensated for its impact. Owner caused delay (OCD) represents this category of ECD.

Excusable non-compensable delays (ENCD)

ENCD are those delays in which the contractor is excused in terms of time impact, but is not compensated for the cost of the delay impact. This category includes Concurrent Delay (CD) and TPCD.

Non-Excusable Delays (NED)

NED is those delays in which the contractor is not excused and is thus not compensated. This category includes CCD, in which the contractor is the sole responsible party for the delay. This may be: Delayed Mobilization, Delayed Procurement, Delayed submission of important documents, Critical events that were not highlighted to client on right time, General poor planning on behalf of the contractor etc.

Remedies for Delays

Delay type	Examples	Remedy
Owner responsible (OCD)	Variations, failure to provide site /information	Extension of time with recovery of overhead costs
Contractor responsible (CCD)	Insufficient labor/plant, remedial work	No compensation in either time or cost.
Third party responsible(TPCD)	Strikes, riot, exceptional adverse weather, force majeure.	Extension of time to defray deduction of liquidated damages, but no costs.

Source: [5]

6.3 TYPES OF CONSTRUCTION DELAY [6]

1. Date Delay

Description: An activity cannot start (or finish) until a specific date irrespective of when preceding activities were carried out or were planned to be carried out.

Example: The delivery of plant or material scheduled for a specific date without which the work cannot proceed.

The release of information without which the activity cannot proceed.

Simulation method: The addition of an 'imposed date' to the relevant activity in the network.

2. Total Delay

Description: Complete stoppage to all part of the works occurs.

Example: Strikes and lockouts, Postponement of the works, Inability to gain access to or egress from the works, Effects of weather not catered for in the original program.

Simulation Method: Adjustment to the calendar for the relevant activities.

3. Extended Delay

Description: Duration of an activity is extended

Example: Increase in the work content of an activity, Change in the circumstances in which the work is being carried out resulting in lower productivity than planned, Restrictions in the supply of labor, plants or materials resulting in reduced overall output.

Simulation Method: Increase in the duration of the relevant activity.

4. Additional Delay

Description: Additional construction activities are added to the planned work.

Example: New or additional work incorporated into the project subsequent to the production of the original program.

Simulation Method: Adding activities to the network complete with the logic links to existing activities.

5. Sequence Delay

Description: Activities cannot be carried out in the sequence originally planned.

Example: Changes in Specification of materials or techniques which result in activities no longer able to be carried concurrently.

Simulation Method: Alterations to the logic links in the network to reflect the new sequence.

6. Progress Delay

Description: Progress of the works was less than that planned.

Example: Inadequate labor, plant or materials, Output less than planned, unscheduled breakdowns of plants, the effects of normal inclement weather, Vandalism.

Simulation Method: Reworking as a result of workmanship or materials not being in accordance with the specifications

6.4 CONSTRUCTION CLAIMS

Construction project operates in a dynamic environment where the several issues may arise during the implementation causing delay of a project. These issues can be resolved among the stakeholders during the implementation. Such issue include contractor requesting for either time extension or reimbursement of additional cost or both. Such requests are termed as CLAIM. If the owner does not agree the claim put by contractor, there is difference in interpretation, the issue takes the form of DISPUTES.

A claim arises when one party to the contract has suffered a detriment (loss or damage) for which that party should be compensated for. A claim is a demand for something due which results from an action. A construction claim arises when a party to a construction contract believes that in some way, by act or omission, the other party has not fulfilled its part of the bargain. A change order is an agreement between the parties however, the claim is a request by one party. The claim becomes a change order if the parties agree.

The unique, dynamic and complex nature of the industry inevitably leads to a situation where conflicts are bound to arise, and claims are inevitable. "Construction Claim can be defined as *a request by either party to the contract, usually the Contractor, for compensation for damages caused by failure of the other party to fulfil his part of obligations as specified in the contract.* [7]. Also a claim is defined by the Canadian Law Dictionary as an "*assertation to the right to remedy, relief, or property*" or a "*failure to fulfil obligations under the contract.*" [8]

6.5 CAUSES OF CONSTRUCTION CLAIMS

Construction claims can logically be divided between owner and contractor. The common aspect of owner and contractor claims is that to a great extent both are based ultimately on a short list of common root causes, which are avoidable. Occasionally there are third party disputes, for example between contractors and engineers or subcontractors and owners. Within the construction industry claims can be classified in to the different categories: [6]

- owner caused delays in the work
- owner ordered schedule changes
- constructive changes
- changes to the scope of work
- acceleration of work; loss of productivity
- suspension of work; termination of work
- lack of payments
- conflicts in plans and specifications,
- inadequate documentation

Owner caused claims [9]

- late approval of shop drawings and samples,
- late approval of the laboratory test,
- delays in answers to field inquiries by the contractor,
- changes in the contractor's method of doing the work,
- variation in estimated quantities,
- interference with the contractor during construction,
- owner-caused schedule changes,
- design changes,
- changes in inspection levels,
- failure to provide site access,

Defective work

Defective work is a result of unclear documents, excessive time pressure, loose coordination, or inadequate inspection of the work in progress as well as design documents that is difficult to build.

Scope of Work

Changes to the scope of work are inevitable on a construction project. Although change clauses are nearly universal and invoked on nearly every project, they are also among the greatest cause of claims on construction projects.

Acceleration of Work

Acceleration of work is usually the result of an attempt by the contractor to take whatever means and measures are necessary to complete the work sooner than normal. The contractor can experience significant financial damage if the overall duration of the project is extended through no fault of the contractor. Often this financial damage can be large and will increase rapidly as time goes on. It occurs when the contractor is ordered, either directly or constructively, to speed up performance in some way.

Suspension of Work: Termination

Owner Termination Claims:

The ultimate remedy available to an owner for a contractor that is not performing the job that they were contracted to do is termination. The contractor must be given notice and an opportunity to correct its defaulting actions. Rash or impulsive termination can result in a wrongful termination claim from the contractor.

Contractor Termination Claims:

Typical contract language allows for the contractor to terminate the contract under specified conditions. Prolonged suspension, lack of payment, and other contract breaches may be reason for termination for cause. The contractor must have exhausted all other remedies and must follow the letter of the contract. This is the most extreme action that can be taken to resolve disputes during the execution of the contract.

Inadequate Documentation

Documenting procedures for record keeping and identifying, tracking, estimating, and negotiating changes will pay immense dividends to both owners and contractors. It will keep a project on track and will eliminate the problems and expense that accompany the preparation of a claim with inefficient records.

Types of Construction Claim

Civil Claims

Civil or tort claims are pursued when the contractual relationship has been completely broken down on a project. These claims include fraud and negligence, among other civil matters.

Payment Claims

The contractor expends large amounts of money in wages, material, equipment, and other expenses, and the owner or his/her agent decides how much the contractor gets paid. It is obvious that this arrangement has the tendency to cause disputes, which if not settled, become claims.

Delay Claim

It occurs when unanticipated events extend a project's completion date beyond the originally set one. If construction is delayed, production and money will be lost. An event even beyond the contractor's control, like flawed designs, bad weather, a pandemic, or an earthquake, can also be the reason for this. [3]

Price Escalation Claim

Price escalation claims occur when the anticipated project budget rises for finishing the task early or on time. Given that customers are responsible for paying the expenses associated with the accelerated service, clients are the ones that submit claims.

6.6 CONSTRUCTION DISPUTES AND MITIGATION

Dispute is a misunderstanding between two parties, either contractual or non- contractual. A combination of environmental and behavioural factors can lead to construction disputes. [10] Technically a dispute implies declaration of a claim by one party and the rejection by another party. Disputes in the construction sector, as in any industry, usually arise due to the failure of one or more parties to comply with contractual obligations. The development of construction disputes may be uncertainty, contractual problems and behaviour.

Causes of disputes

The origin of many disputes often lie in the contract itself.

- Failure to properly administer the contract.
- Poorly drafted or incomplete/unsubstantiated claims
- Employer/Contractor/Subcontractor failing to understand and/or comply with its contractual obligation.
- Errors and/or omissions in the contract document.
- Incomplete design information or employer requirements (for Design and Build and D&C).

Causes of Construction Dispute by Clients

- Deficient management supervision
- Lowest price mentality in engagement of contractor
- Poor communication
- Discrepancies in contract documents
- Failure to appoint project manager
- Failure to respond in time

Causes of Construction Disputes by Contractors

- Delay suspension of work
- Lack of understanding and agreement in contract procurement
- Inadequate CPM scheduling and update requirement
- Failure to plan and execute the changes of works
- Reluctance to seek clarification
- Failure to understand and correctly bid or price the work

Causes of Construction Dispute by the Consultants

- Failure to understand its responsibilities under the design team contract
- Over design and understanding, the costs involved
- Incompleteness of drawing and specification
- Design and specification oversight and errors or omission from specialists
- Variations due to design errors

Mitigation of Disputes

NEGOTIATION

Negotiation is focused on discussion on dispute among the engineers from all the interested parties, with the intention of resolving differences without the involvement of third party. It is an informal process in the legal sense. If an agreement is reached through the process, it may have the usual legal significance. This process is fast and does not involve additional expenses. Discussions are held between the parties in the cordial and peaceful atmosphere.

MEDIATION & CONCILIATION

This is an informal Process in which the parties are assisted by one or more neutral third parties in their effort towards settlement. The third parties have no power to impose the outcome on disputing parties. These mediators do not sit in judgement but try to advise and consult with the parties with the objective of bringing out the mutually agreeable solution to the problem.

ARBITRATION

It is the quasi-judicial process for the resolution of disputes outside the court. The construction parties to a dispute refers to one or more person (Arbitrator/s or arbitral tribunals) by whose decision they agree to bound. Arbitrator should be able to guide and provide a directions to the proceedings. Arbitration is cost effective and less time consuming in comparison to the litigation process. The arbitration is also private, and therefore not open to the public or the media without the expressed permission of both parties.

LITIGATION

When all other remedies have been exhausted, a dispute may go into litigation. The clear, precise, and consistent documentation that has been kept throughout the project is critical to litigation issues. [10] Contract disputes that lead to construction litigation sometimes involve simple matters, such as non-payment, work conditions or project deadlines, and often involve just two parties, the general contractor and a subcontractor. Construction litigation can be a costly and time-consuming process for all parties involved.

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