Area of Dispute of Extension of Time Claims and Measures

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Abstract:
As per FIDIC conditions of contract, Time is the essence of Contract. The delays are inevitable on construction Projects due to numerous reasons like change in design, increase in scope of works, change in specifications, and late provision of design or drawings, Unforeseeable Physical Conditions encountered on Site etc. Time and Money go hand-in-hand, when projects get late, additional costs are incurred resulting into loss to the project stakeholders. This makes it imperative to take control of project delays; timely and effectively. Hence, Extension of time claim is the documents put forward by contractor in order to substitute the reasons for the delay to the project, claiming for an additional time for completion of the project. The reasons behind the delay of projects are various but disputes between the contractor and client are many. Hence, the purposes of this paper are give focus on reasons behind the emergence of extension of Time Claims and provide remedial measures.

Keywords: FIDIC, Delays, Extension of Time Claims.

I. INTRODUCTION
It is very common to see the request of Time Extension Claim in the construction projects. These claims are for additional time & delay costs resulting from prolongation or disruption by the principal are not handled appropriately, there are risks that excessive costs will be incurred or contract disputes will Extension of Time claims id the document which put forwarded by contractor in order to substitute the reasons for the delay to the project, claiming for an additional time for completion of the project. Claims are divided in two parts – Time Claims and Cost Claims. Claim which demands for additional “time” those are known as “Time Claims”, and claims those demands for additional cost are known as “Cost claim”. Construction industry delays are unavoidable. Delays are may be because natural causes or may be by manmade reason. These reasons causes for birth of the Extension of Time Claims which runs billions of currencies.

II. LITERATURE REVIEW:
AS construction industry is one of the largest industries in India. It runs billions of money in work. Hence its importance to take review of reasons behind the extension of time claims and methods derived for its measurement. The paper “Factor influencing Decisions on delays claims in construction contracts for Indian scenario by Chaphalkar and Iyyar (AICB,2014)" reasons causing delay and affected days discussed. The reasons were like due to late handing on site, due to late issues of drawing, late supply of material and equipments and utilities like water and electricity, changes in orders, subcontractor’s works and release of payments. “Society of Construction Laws Delays and Disruption Protocol" a UK based organization which makes research regarding the construction laws and concluded with reference of concurrency and float. According to research, protocol must be developed on the concurrency for avoiding further disputes between involved parties. In “Delay Analysis Methods As Explained By Mr. Davis Berry in a paper presented to SCL-UK in 2009" it talks about commonly used delay analysis methods like Impacted as-Planned method, Time Impact analysis method, Collapsed as-built method, Snap-shot method, As –planned vs as built window analysis method which are discussed below in details. A paper presented on “Prolongation & Loss and Expenses claims for Hong Kong Institute Of surveyors by Mr. Mike Allen Feb 2012." discussed on Extension of Time related to associated cost. Prolongation claims are claims for additional time related costs associated with delays caused by the client. A prolongation claim is a claim for “delay-costs”. In common practice an extension of time is usually awarded before a prolongation or a loss and expenses claim is submitted. The intention of the contract is to allow the contractor to recover monetary compensation. If there is a compensable delay that prevents the contractor from completing the contract work. The procurement practice guide “Managing extension of Time claims” published by New South Wales Government provides guidance for determining whether a delay occurred, whether the contractor has an entitlement for completion to be extended on a account of the delay and what extension of time should be granted. Any delay claim, including prolongation or disruption claims can be assessed using the principles given in the Procurement Practice Guide Managing extension of time claims.

III. PROBLEMS STATEMENTS:
Following are the major areas of the argument between Contractor & Employer, which we are going to focus within this thesis.

• Critical Path
• Ownership of the Float
• Concurrent (or Contractor) Delays and how these effect Entitlement

Above points are explained below:

• Critical Path:
a) Critical Path is defined as “Longest sequence of activities in a project plan which must be completed on time for the project to complete on due date”.
b) An activity on the critical path cannot start until its predecessor activity is complete; if it is delayed for a day, the entire project will be delayed for a day unless
the activity following the delayed activity is completed a day earlier.

c) During the course of the construction, the critical path keeps changing than what it was originally envisaged within the agreed baseline program. When analyzing the impact of the Employer's Delay Events, both the parties keep disputing as to which critical path should be referred to check the impact of delay events.

d) In absence of a common agreement on the Critical path to analyze the impact of delay events, the EOT claims remain disagreed.

- Ownership of the Float:
  a. Float is a vital attribute of each activity in a network or program. There are few types of floats, but generally speaking the Total Float is the most used. When activity is said to have a float (total float) of certain amount, it means the activity can be delayed by that amount without affecting the project completion. If the entire float amount was consumed (the delay period equals the total float amount), the activity becomes a zero float activity.

  b. The significance of the argument about who owns the float has two folds, first its ability to directly or indirectly influence the construction methodology and/or sequence once the project execution has started, and secondly, the potential entitlement of extension of time (EOT) and the application of liquidated damages (LDs). There are mainly three views of the matter, which are presented hereinafter.

    The ‘contractor owns the float’ argument:
    - This is a traditional approach of contractor’s towards the float. As per Contractor, since the program is prepared by Contractor and hence has only exclusive right over the float.

    The ‘client owns the float’ argument:
    - This view is exactly opposite to contractor’s approach towards the float.
    - As per this view, since client pays for all the project expenses and hence he has the exclusive right over the program, which is part of the project.

    The ‘project owns the float’ argument:
    - This view basically says float is owned by neither the contractor nor the owner. The project owns the float which means “float is not for the exclusive use of any of the parties and it serves whoever needs it first” as long as it is used in good faith.
    - Many modern forms of contracts, especially internationally, indirectly take this view by building the clauses to regulate the float utilization rights as discussed later in this article.

Concurrent (or Contractor) Delays and how these effect Entitlement:

  a) The term “concurrency” is commonly defined as circumstances where different causes of delay overlap during the period of time.

  b) As such, a concurrent delay could occur during a construction period if a delay that was caused by the owner is on the same activity path or a parallel activity path as a delay that was caused by the Contractor.

For making Extension of Time Claims with references of delays following four methods are generally using:

1) As-planned Vs. As-Built Comparison
2) Impacted As-planned.
3) Time-Impact Analysis Method
4) Collapsed As-built but-for Method

   Instead of going in details of methods this paper tries to give focus on problem during practice and some remedial measures with respect of two case studies. In next section explained two Indian case studies, because of demand of organizations and because of confidential matter names are assumed different.

IV. CASE STUDIES

- CASE STUDY 01:

Project: Water Supply Project

Brief Scope of Work: Construction of tunnels, shafts and allied works.

Project Value: Rs. 350.00/- Cr.

Commencement Date: 15th Sep 2005

Completion Date: 14th May 2010

Contract Duration: 1703 Days

Approved Extension of Time #01: 07th Dec 2011

Request for Extension of Time #02: 573 Days

Actual date of completion: 13th July 2013

- CAUSES BEHIND DELAY OF PROJECT:

1. Delay in handing over of encumbrance free sites.
2. Delay of issue of construction drawings.
3. Delay in providing dumping yard.
4. Increase in length of tunnel.
5. Delay in provision of shutdown of live mains and road closure.
6. Non granting permission of blasting.
7. Change in methodology and sequence of work.
8. Non availability of cross connection work drawings, requirement to trace live mains by trial and error methods.
9. Requirements to provide steel liners in tunnel stretch.

- ESTABLISHMENT OF ENTITLEMENT:

Above listed reasons caused for delay in completion of project on date ultimately leads to costs also. Costs comes from additional work. Hence contractor submitted Entitlement to reimbursement of additional costs which was full with losses and expenses suffered due to contract prolongation.

Fig No. 02- Financial Summary

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Head of Claims</th>
<th>Claimed Amount (Rupees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Head office Expenses.</td>
<td>149,100,000.00</td>
</tr>
<tr>
<td>02.</td>
<td>Inflation, Escalation Cost.</td>
<td>126,969,698.30</td>
</tr>
<tr>
<td>03.</td>
<td>Variable Finance Cost.</td>
<td>14,000,000.00</td>
</tr>
<tr>
<td>04.</td>
<td>Fixed Finance Cost.</td>
<td>4,700,000.00</td>
</tr>
<tr>
<td>05.</td>
<td>Site Facilities &amp; other expenses.</td>
<td>111,000,000.00</td>
</tr>
<tr>
<td>06.</td>
<td>Plant &amp; Equipment Cost.</td>
<td>148,000,000.00</td>
</tr>
<tr>
<td>07.</td>
<td>Idle Labour Cost</td>
<td>60,000,000.00</td>
</tr>
<tr>
<td>08.</td>
<td>Site Staff &amp; Supervision Costs.</td>
<td>60,200,000.00</td>
</tr>
<tr>
<td>TOTAL CLAIMED COST</td>
<td>673,969,698.30/-</td>
<td></td>
</tr>
</tbody>
</table>
In above financial summary head office expenses covered under efforts put on executive and administration works, office occupancy costs (rent and other services), tendering, bidding costs, finance and IT departments costs, marketing and general ad ministrative charges, off-site vehicles expenses, office supplies, taxes, central storages and other business expenses. Under the fixed finance cost extension of performance bond, extension of advance payment bond, extension of retention bond, extension CAR policy, extension of warranties pursuant for maintenance period covers. Under the inflation and escalation cost consists since the contract does not evaluating disruption cost is loss of efficiency of labour resources, loss of efficiency from plants, machineries and vehicles resources, loss due to the inflation. Variable cost are those expenses incurred by the contractor in financing in the project mainly consist of obtaining the letter of credit facilities from bank to procure the log lead items.

**METHODOLY USED IN CASE STUDY 01:**
- Contractor while submitted his claim he relied upon Time Impact Analysis Method. Also he submitted revised program along with his the claim.
- The cost claim was based on the actual expenses method and some items were pro rated.

**CASE STUDY 02:**
Commencement Date: 22-05-2008
Completion Date: 22-07-2012
Approval of EOT: 21-03-2013

**CAUSES BEHIND DELAY OF PROJECT:**
- Delays in issues of construction drawings.
- Delay in allocating the dumping yard.
- Delay in clearance in PCC/mud mat works.
- Delay in approval for water proofing material.
- Delay due to the frequent changes and revisions of construction drawings.
- Non availability of appropriate quality of fly ash.
- Non availability of explosives.
- Restriction imposed on changing and blasting activities.
- Changes in technical requirements.
- Local labour agitations.
- Increase in scope of work of major BoQ items.
- Modifications/ alterations for erection of embedded parts and liners etc.

Because of above reasons projects delayed by 1280 days. Contractor requested from EOT of 1280 days Contractor put forwarded following financial EOT claim.

**Fig No. 04- Financial Summary**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Head of Claims</th>
<th>Claimed Amount (Rupees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Head office Expenses.</td>
<td>876,036,885.06</td>
</tr>
<tr>
<td>02</td>
<td>Inflation, Escalation Cost.</td>
<td>50,024,307.69</td>
</tr>
<tr>
<td>03</td>
<td>Variable Finance Cost.</td>
<td>325,231,923.65</td>
</tr>
<tr>
<td>04</td>
<td>Fixed Finance Cost.</td>
<td>15,015,932.64</td>
</tr>
<tr>
<td>05</td>
<td>Site Facilities &amp; other expenses.</td>
<td>124,564,939.47</td>
</tr>
<tr>
<td>06</td>
<td>Plant &amp; Equipment Cost.</td>
<td>257,816,085.94</td>
</tr>
<tr>
<td>07</td>
<td>Idle Labour Cost</td>
<td>200,000,000.00</td>
</tr>
<tr>
<td>08</td>
<td>Site Staff &amp; Supervision Costs.</td>
<td>147,727,862.53</td>
</tr>
</tbody>
</table>

**TOTAL CLAIMED COST** 199,640,0000/-
On the basis of above details following EOT claims table evaluated.

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**Fig No. 6: Extension Of Time claim in number of days**

| PROJECT # 01 | 573.00 | 1,280.00 |

**Fig No. 06- Comparative Study of EOT claims**

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Description</th>
<th>Case Study 01</th>
<th>Case study 02</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Name of the project</td>
<td>Construction of Tunnel</td>
<td>Government Building</td>
</tr>
<tr>
<td>02.</td>
<td>Type of the project</td>
<td>Mumbai</td>
<td>Mumbai</td>
</tr>
<tr>
<td>03.</td>
<td>Project duration (in days)</td>
<td>1703 Days</td>
<td>1522 Days</td>
</tr>
<tr>
<td>04.</td>
<td>Contract value (in riyal)</td>
<td>Rs.377.36 Crs.</td>
<td>Rs.887.92 Crs.</td>
</tr>
<tr>
<td>05.</td>
<td>Claimed duration (in days)</td>
<td>573 Days</td>
<td>1280 Days</td>
</tr>
<tr>
<td>06.</td>
<td>Claimed cost (in riyal)</td>
<td>Rs.67.4 Crs</td>
<td>Rs.199.64 Crs</td>
</tr>
<tr>
<td>07.</td>
<td>Method used for time claim</td>
<td>Time Impact Analysis</td>
<td></td>
</tr>
<tr>
<td>08.</td>
<td>Method used for cost claim</td>
<td>Actual Expenses Method and Pro rata basis.</td>
<td>Actual Expenses Method</td>
</tr>
<tr>
<td>09.</td>
<td>Remark</td>
<td>-Major reason behind delay is receipt of drawings, changes agreed in sequence of work.</td>
<td>-Main reason behind delay is issue of design drawings, discrepancies into design drawings, changes in to the contract work, changes in to the agreed sequences of work, restriction on work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-From above comparison combined methods i.e. Actual expenses and Pro rata, are not advisable.</td>
<td>-Actual expenses method is advisable form above comparative study.</td>
</tr>
</tbody>
</table>

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**V. CONCLUSIONS:**

1. Actual Expenses method should be used to claim to Prolongation Cost. Contractors should avoid the claim items like inflation, escalation, financial expenses, unless it can be proved with all necessary documents.
2. The disputes for ownership of Total Float & definition of Critical Path should be minimized by referring to rules set out by SCL, UK.
3. The EOT Claims can be prepared, analyzed and agreed very smoothly if both the parties follow the International Recognized Organization’s like SCL, UK protocols. The arbitration & court routes can be avoided if the claims are agreed mutually based on international protocols.
4. Also the ownership of the Total Float and definition of Critical Path should be amended as per Indian context and should be practiced.
5. The methodology used for drafting the claims should be as per the contract clauses; if the methodology is not expressly mentioned within the contract, then it is observed that there is a great amount of dispute between Contractor & Employer while choosing any particular methodology.

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**VI. REFERENCES:**

[1] “Factor influencing Decisions on delays claims in construction contracts for Indian scenario by Chaphalkar and Iyyar (AJCEB,2014)”


[3] “Delay Analysis Methods as Explained by Mr. Davis Berry in a paper presented to SCL-UK in 2009”

[4] “Prolongation & Loss and Expenses claims for Hong Kong Institute Of surveyors by Mr. Mike Allen Feb 2012.”