

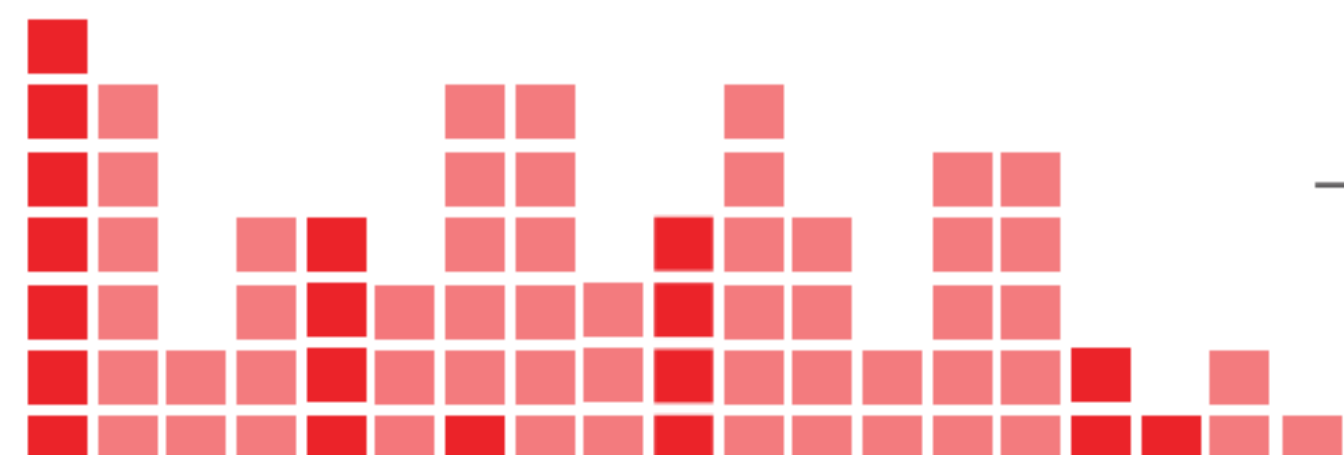


**CONSTRUCTION
LAW
INSTITUTE**

PROLONGATION COSTS

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TOPICS OF INTEREST

01.

Prolongation costs

02.

Acceleration costs

03.

Price escalations

04.

Effects of Force
Majeure

05.

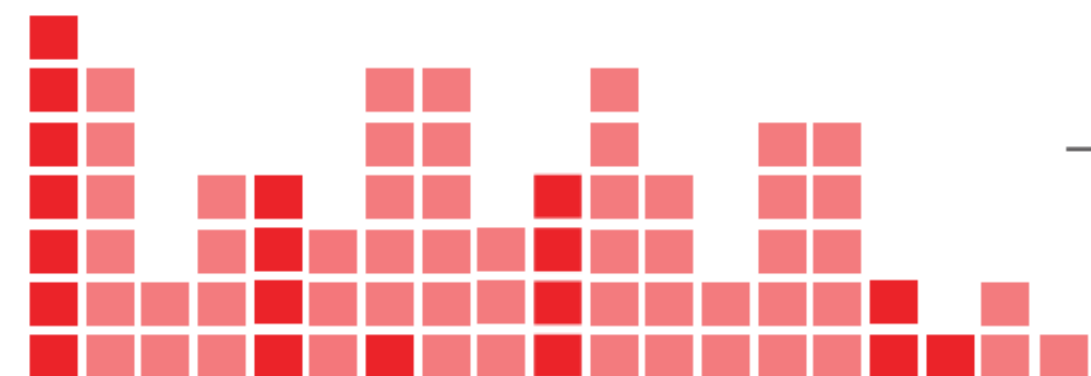
Scarcity of goods
and materials

06.

Hudson & Emden
Formula for
Computations



01. PROLONGATION COSTS



01. PROLONGATION COSTS



**Construction
Delay**

Delay by employer = Prolongation costs to Contractor (loss & expense)

Delay by contractor = Liquidated damages to Employer

Definition

- Employer is responsible for the delays and therefore the Contractor to remedy.
- Time-related costs incurred by the Contractor as a result of critical delay to the Works where Contractor is not responsible.
- Are intended to compensate the Contractor for its time-related costs which it would not have incurred but for the Employer-risk delay event.
- “Costs and losses incurred as a result of delays to the activity in question or the works as a whole which have led to critical delay to the contract completion date” (*Keating on Construction Contracts*)
- “The objective is to put the Contractor in the same financial position it would have been if the Employer Risk Event had not occurred” (*The SCL Delay & Disruption Protocol*)



01. PROLONGATION COSTS

Principles of Prolongation costs

Facts

Financial element of a Contractor delay claim upon granting Extension of time
Claims by contractors for delay or disruption related loss and expense must be proved.

- *Events leading to loss & expense*
- *The events caused delay/disruption*
- *The relationship between delays/disruption and loss & expense*

Claim submission must include:

- *Sufficient information to ascertain loss & expense*
- *Comprehensive supporting information.*

Clarifications

- No automatic entitlement to loss and expense or damages even if a right to an extension of time is established
- No requirement for the Contractor to provide “*every conceivable detail*”. Architect & Quantity Surveyor are not strangers to the project in considering what needs to be provided to them **TCC’s judgment in *Walter Lilly & Company Limited v Giles Patrick Cyril Mackay* [2012] EWHC 1773 (TCC)**

Heads of Prolongation Costs by Contractor

Contractor is entitled to Prolongation Costs under the following circumstances

- *Requisite notices and early warning were given in accordance with the contract*
- *Submission of Claim for Extension of time on time in accordance with the Contract.*
- *Extension of Time is granted by the Project Manager/Engineer/Architect.*

Key items that a Contractor submitting a Claim for Prolongation must observe

- *The rules of the contract must be followed*
- *Causation must be established.*
- *Evidence is key.*
- *The Contractor should seek to establish its actual costs and losses incurred.*





Head 1 - On-site preliminaries / overheads

- Labour Costs
- Plant and equipment
- Preliminaries

Head 2 -Head office (off-site) overheads

- Increased head office overheads
- Lost contribution to head office overheads
- Preliminaries

Head 3 – Loss of profit

- Reduced turnover for project delay (affecting upcoming tenders or other projects)
- Loss of turnover profitability at time of delay.

Heads of Prolongation Costs by Employer

Liquidated and ascertained damages (“LAD” or just ‘LD’, or even “Delay Damages”)

- As agreed upon by both parties to deal with delays and specified contract breaches.
- Provide certainty to consequence of breaches.
- Are a time and cost efficient solution as parties avoid costly debates about how much the defaulter should pay for a breach.

Supreme court (2021, *Triple Point Technology and EWB v Dobler*) guidance on LAD

- *The accrual of LAD comes to an end upon termination of a contract*
- *After this, the aggrieved party must seek damages for breach of contract under the common law or tort law*
- *The Triple Point decision removes the need to draft express provisions for the termination of a contract prior to completion of the Works in LAD clauses and provides certainty to contracting parties regarding the enforceability of LAD clauses, specifically where completion of the Works has been delayed.*

01. PROLONGATION COSTS

Prolongation costs reference clauses in contracts

PPDA FORM OF CONTRACT

- General section (14No)

GCC 10,15,16,17,19,21-22,26-28,32-35

- Time Control section (5No.Clauses)

GCC 36-41

- Quality Control section (2No. Clauses)

GCC 42-43

- Cost Control section (8No. Clauses)

GCC 48,51-53, 56,58-59,61

- Finishing the contract section (5No. Clauses)

GCC 64-66,68,70

EAIA (BLUE BOOK)

18No Clauses

Clauses 1-3,11,15-16,21-25,29-30,32-34,36



02. Acceleration Costs



02. ACCELERATION COSTS

Definition

Claims for payment made as a result of the costs associated with speeding up work consisting of:

- *Overtime payment*
- *Compensation for increased scope of work.*
- *Change orders.*
- *Supplementing the workforce.*
- *Expedited Procurement of Materials (local & imported)*

Occurs when the work must be done at a quicker pace than planned; when:

- *Project delays have been encountered,*
- *The scope of work increases during the life of the project,*
- *The finish date is moved up for some reason*

The instruction to accelerate work will come via a written Instruction/Variation/Change Order.

02. ACCELERATION COSTS

Types of Acceleration cost.

Voluntary Acceleration

- *Contractor's self drive to accelerate their work*
- *The contractor is not entitled to acceleration claims*

Directed acceleration

- *Contractor is formally instructed by change order to accelerate the work*
- *Compensation is made for that acceleration*

Constructive acceleration

- *Occurs when the contractor faces an excusable delay and requests an extension of time*
- *Constructive acceleration arises in the event the extension request declined and the contractor must instead accelerate work to catch up with the project schedule*
- *To make a claim for this type depends on the process under which it was undertaken; that is*
 1. *Was the Employer aware, or a statement made or action made by the Employer to that could be interpreted as an order?*
 2. *Did the contractor provide notice of constructive change?*

02. ACCELERATION COSTS

Acceleration costs reference clauses in contracts

PPDA FORM OF CONTRACT

Time Control section (1No.Clause)

§GCC 38 - Acceleration

EAIA (BLUE BOOK)

4No Clauses

- Cl.21 – Possession, Completion and Postponement
- Cl.22 – Damages for non-completion
- Cl.23 – Extension of Time
- Cl.24 – Loss and Expense caused by disturbance of regular progress of the works





0.3 PRICE ESCALATIONS (FLUCTUATIONS)

0.3 PRICE ESCALATIONS (FLUCTUATIONS)

Definition

A Price Escalation clause (or 'cost escalation clause') is a pre-determined contractual mechanism that facilitates the contractor passing on changes in basic costs (both increases and decreases) to the employer

The contractor retains the ability to adjust the contract price in line with the fluctuating costs of raw materials in the market and other elements of the works at the time

This clause has the advantages:

- *Price change risks are transferred from the Contractor; more predictability in contractors' bids received*
- *More realistic and lower bids are received*
- *"Disagreement" between the parties due to unforeseeable fluctuations in the market is eliminated*
- *By including a "cap" on the amount of fluctuations, the Employers' Risk is eliminated by including a Provisional Sum to cover the Cost of fluctuations*

The frequency of calculating and notifying the Employer of the effects of the Price Adjustment should be clear

0.3 PRICE ESCALATIONS (FLUCTUATIONS)

The following **MUST** be included in the Bidding Documents and the Contract Agreement:

- *Price Fluctuation formula*
- *Source of the Cost Fluctuation Data*
- *Base Date for Price Adjustment*
- *Upper and Lower Limits for the Price Adjustment to apply.*
- *A Provisional Sum to provide the Budget for Price Adjustment*

0.3 PRICE ESCALATIONS (FLUCTUATIONS)

Price Escalation under PPDA Form of Contract

This is provided for under GCC and SCC Clause 56
(Price Adjustments)

The PDE has the option of eliminating GCC 56
through the Special Conditions of Contract.

The guideline on whether or not to include GCC 56
(Price Adjustment) is given under PPDA Reg.
(Contracts) 40 (1) which clarifies that

- *Applicable to contracts extending beyond eighteen months*
- *At PDE's discretion where it is more economical for the PDE to accept the inflation risk than to pay an additional cost for the supplier to accept the risk*



0.3 PRICE ESCALATIONS (FLUCTUATIONS)

Clause GCC 56 (Price Adjustment) explained

56.1 Prices payable (as stated in contract) are subject to adjustment to reflect changes in cost of labour and material components using the formula:

$$\Delta P = P_0 \left(a + b \frac{L_1}{L_0} + c \frac{M_1}{M_0} \right) - P_0$$

in which:

ΔP = adjustment amount payable to the Provider.

P_0 = Contract Price (base price).

a = fixed element representing profits and overheads included in the Contract Price and generally in the range of five (5) to fifteen (15) percent.

b = estimated percentage of labour component in the Contract Price.

c = estimated percentage of material component in the Contract Price.

L_0, L_1 = labour indices applicable to the appropriate industry in the country of origin on the base date and date for adjustment, respectively.

M_0, M_1 = material indices for the major raw material on the base date and date for adjustment, respectively, in the country of origin.

The coefficients a , b , and c shall be specified by the procuring and disposing entity in the bidding documents. The sum of the three coefficients should be one (1) in every application of the formula.

0.3 PRICE ESCALATIONS (FLUCTUATIONS)

The key requirements of GCC 56 are as follows:

a) Source of indices

b) Base date = thirty (30) days prior to the deadline for submission of the bids

c) Date of [commencement of] adjustment

d) Limitations set for the application of price adjustment such as;

- Result increase or decrease upon adjustment is more than a specified %age of contract price
- Not applicable for periods of delay for which the caused by the contractor
- There must a cap/ceiling expressed as a %age of the contract price for the total price adjustment
- Application of a correction factor for work items differing from the currency of contract
- Not applicable to advance payment (GCC 56.2)

e) Changes in indices used after calculation are updated in subsequent payments (GCC 56.3)

f) Under the PPDA form of Contract

- The source of Indices is usually the Uganda Bureau of Statistics (UBOS) – Construction Sector Indices.
- The source of the Rates of Exchange is usually the Bank of Uganda
- All the factors related to the price adjustment formula must be stated in the Contract

0.3 PRICE ESCALATIONS (FLUCTUATIONS)

Price adjustment computation sample

a) Computation of Price adjustment factor;

0.3 PRICE ESCALATIONS (FLUCTUATIONS)

Price adjustment computation sample

b) Application of computed price adjustment factor;

0.3 PRICE ESCALATIONS (FLUCTUATIONS)

Price Escalation under EAIA Contract (Blue Book)

This is provided for under Clause 32 (Fluctuations)

The clause notes that this is applicable where the Contract is not a Fixed Price Contract. In the event of a Fixed price Contract, this clause is struck out.

Under the EAIA (Blue Book) Form of Contract

- *The source of Price Fluctuation Data is stated as the Joint Building Council (JBC) of Kenya.*
- *The Base JBC Cost Data must be included in the Contract Agreement.*

The calculation of Price Fluctuations in this form of Contract is similar to the one under the PPDA Form of Contract.

0.3 PRICE ESCALATIONS (FLUCTUATIONS)

Clause 32(Fluctuations) explained

32(1) This Clause caters for changes in duties affecting the cost of materials that may arise during construction. It defines duties as all customs and exercise charges, tariffs, taxes and other duties imposed in the country where work is being executed.

32(2) This Clause caters for changes in exchange rates affecting the cost of materials that may arise during construction. The base date for exchange of rates is the exchange rate at the date of Tender.

32(3) This Clause defines the framework for computation of changes in labour rates and material prices as construction progresses. It requires that Contract comprises a schedule of Basic rates as published by the JBC at date of tender. These rates are then varied (as a %age) reflecting the change in basic rates as indicated in subsequent publications in the JBC as construction progresses.

0.3 PRICE ESCALATIONS (FLUCTUATIONS)

Clause 32(Fluctuations) explained (Cont.)

Limitations set for the application of fluctuations include:-

- The provisions of Sub clauses (1) [changes in duties] and (2)[changes in exchange rates] do not apply to any materials listed in the schedule of basic rates
- All computations are limited up to the date of practical completion/extended time as defined in the contract
- They do not apply to Nominated Subcontractors unless specified in the sub-contract agreement
- Do not apply to Nominated Suppliers



**0.4
EFFECTS OF FORCE
MAJEURE**

0.4 EFFECTS OF FORCE MAJEURE

Definition

A clause that is included in contracts to remove liability for unforeseeable and unavoidable catastrophes that interrupt the expected course of events and prevent participants from fulfilling obligations

Force Majeure events are commonly referred to as “... **an act of God**”.

Three main pre-requisites are that the events that cause ‘Force Majeure’ must be:

- Unforeseeable
- External to both parties of the contract
- Unavoidable



Contractual Requirements

It should include an illustrative list of events such as:-

- *Flood, fire, earthquake, explosion, or other potential disasters.*
- *War, invasion, hostilities, terrorist threats or acts, riot or other civil unrest.*
- *Government order, law, or actions.*
- *Embargoes or blockades.*
- *National or regional emergencies*
- *New human threats, such as cyber, nuclear, and biological warfare capabilities*

It is accompanied by general, sweeper wording such as “and any other event beyond the affected party’s control”

Contracts will often include express mitigation wording requiring a party to, “take all reasonable steps” or “use best endeavors” to avoid the force majeure event or mitigate its effects

0.4 EFFECTS OF FORCE MAJEURE

Some points of Law on Force Majeure

The Principle of “Pacta Sunt Servanda”

- Latin reference for “agreements must be kept” and not wriggled out of.
- This Principle is a key concept in civil and international law and it is also mentioned in common law.
- It is not supposed to be easy to escape contractual liability, and proving that events were unforeseeable, for example, is difficult by design.

Common Law

- In common law systems, (United Kingdom), the clauses are acceptable but must be more explicit about the events that would trigger the clause.
- The concept of force majeure originated in French civil law and is an accepted standard in many jurisdictions that derive their legal systems from the Napoleonic Code



0.4 EFFECTS OF FORCE MAJEURE

Some points of Law on Force Majeure

International Chamber of Commerce

- The International Chamber of Commerce has attempted to clarify the meaning of force majeure (although it is not included in the organization's Incoterms)
- It applies a standard of “impracticability,” meaning that it would be unreasonably burdensome and expensive, if not impossible, to carry out the terms of the contract.



Application of Force Majeure

Procedure

- Check governing law
- Check the definition of force majeure events in the Contract
- Establish causation
- Check notice provisions
- Submit the “Force Majeure” Claim
- Demonstrate that the party has, “taken all reasonable steps” or “used best endeavors” to avoid the force majeure event or mitigate its effects

Consequences

- Suspension
- Termination
- Compensation
- Negotiation

0.4 EFFECTS OF FORCE MAJEURE

Force Majeure and Covid-19

- If COVID-19 made it impossible for a party to perform its contractual obligations, then, yes, it could qualify as force majeure. Emphasis should be put on the word “impossible” here.
- If the party is able to perform its obligation, it would not constitute force majeure, regardless of how much more difficult or expensive honoring this commitment became in a COVID-19 environment.
- COVID-19 is not necessarily an unforeseeable event any longer. Several years have passed since the outbreak was first reported, and measures have been put in place to prevent the virus from spreading.
- Contracting parties will be expected to do everything in their power to mitigate the effects of COVID-19.
- Contracts signed after the beginning of 2020 with force majeure clauses will stress that the COVID-19 pandemic does not apply



PPDA FORM OF CONTRACT

It is not specifically mentioned in the PPDA form of Contract.

The Clause under which a Contractor might seek relief for “Force Majeure” events are

- §GCC 37 – *Extension of the intended Completion Date*
- §GCC 39 – *Delays ordered by the Project Manager*
- §GCC 41 – *Early Warning*
- §GCC 53 – *Compensation Events*

EAIA (BLUE BOOK)

It is mentioned in Clause 23(a), Extension of Time, and the wording is;

*“Upon it becoming reasonably apparent that the progress of the Works is delayed, the Contractor shall forthwith give written notice of the cause of the delay to the Architect, and if in the opinion of the Architect the completion of the Works is likely to be or has been delayed beyond the Date for Practical Completion stated in the appendix to these Conditions or beyond any extended time previously fixed under this clause,
(a) by force majeure, or...”*



0.5 SCARCITY OF GOODS AND MATERIALS

0.5 SCARCITY OF GOODS AND MATERIALS

Background

The risk of Supplying Good and Materials is a Contractor's Risk unless otherwise explicitly stated that they shall be supplied by the Employer

This Scarcity first started with the COVID-19 pandemic that led to factory closures and supply chain disruptions

It has been further worsened by the Russia -Ukraine conflict as it;

- *has driven fuel, copper, and aluminum prices higher.*
- *delayed or halted the movement of Cargo ships in the area.*
- *denied to certain commodities as a direct result of the conflict and/or sanctions imposed on Russia*



Management of Scarcity of Goods and Materials

Causes

- Factory Closures
- Price Inflation
- Higher Energy Prices
- Supply Chain Disruptions

Mitigation

- Pre-order the Materials
- Pre-purchasing and stockpiling materials at the outset of a project
- Pay a Premium to jump the manufacturing queue for bespoke orders
- Deal directly with manufacturers instead of supplier (middle-men)
- Expedite delivery of delayed procurement by use of Air-freight.
- Map Out the Purchasing Process.





**06.
THE HUDSON & EMDEN FORMULA
FOR COMPUTATIONS OF OVERHEAD
COSTS**

Use of the Formula

There are two opinions on how Head Office Overheads should be evaluated in a claim for Loss and Expense which involves delay (Prolongation);

- *Only those Costs identifiable as a result of the delay are reimbursable*
- *The Contractor should receive a contribution to the total Head Office Overheads*

Where it is established that the Contractor should receive reimbursement for Head Office Overheads, the use of Formulae is an accepted method



The Two Formulas

Hudson Formula

Uses the percentage in the Contractor's tender for overheads (and profit if applicable) as a basis for the Contractor's loss of contribution to overhead (and profit) as a result of delay

The formula:

Refer to *Ellis-Don v. Parking Authority of Toronto (1978) 28 BLR 98*

Emden's Formula

It is similar to Hudson's Formula but the Head Office Overhead (and profit) used in the formula must be the actual percentage based on the Contractor's accounts

The formula:

Refer to *Whitthall Builders Company Ltd v. Chester-le-Street District Council (1985)* – unreported

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