

Variation with Cases



Dinker Sharma
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Variations

PPA CLAUSE 54 & PPR RULE 118

Variation literally means change, alteration, modification

- As per ICE “variation are required for the satisfactory completion and functioning of works”
- Greater the elements of unknown more chances of variations
- Strictly speaking ,contractor is not bound to execute more than contracted unless contractual provisions bind him

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Civil Works Contract Variations Statistics

Averages from an analysis of 32 UK Contracts

TENDER SUM (100%)			
30%	26%	23%	21%
Unchanged items	Increased items	Decreased items	Unused items
	(Variations)		Extras (Variations)
30%	38%	13%	30%
FINAL ACCOUNT (111%)			

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Causes of Variations

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Causes of Variations

- Increase or decrease in quantity indicated in the BOQ (without change in scope /design)
- Omission of any such work in the BOQ
- Compromise on design improvement
- Due to shortage/ availability of additional fund

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Causes of Variations

- Technical reasons
- Change of design and specification
- Change in level, lines, position and any dimension of any part of the work (design parameters)
- Time Extension
- Change in sequence or timing of Construction

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Types & Effects of Variations



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Approval Process in Rules, Regulations And Contract Documents

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- Significance of Regulations and Acts – Approval process within Employer
- Significance of Special Clause on Engineer's Authority - [As per specified Contract Sub Clauses – Approval between Engineer and Employer

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Special clauses – May Contain

“If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25%, provided the change exceeds 2% of the Initial Contract price, the Project Manager shall adjust the rate to allow for the Change”

- (Clause 37 of Bridge Project/ Ramghat – Bheri River Steel Bridge)

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Provisions in Procurement Act

५४. भेरिएसन आदेश: (१) खरिद सम्झौता गर्दाका बखत पूर्वानुमान गर्न नसकिएको परिस्थिति सम्झौता कार्यान्वयनको क्रममा श्रृजना भएमा सोको स्पष्ट कारण खुलाई देहाय बमोजिमको अधिकारीले तोकिएको कार्यविधि अपनाई भेरिएसन आदेश जारी गर्न सक्नेछ :-

- पाँच प्रतिशतसम्मको भेरिएसन सम्बन्धित सार्वजनिक निकायको राजपत्रांकित द्वितीय श्रेणी वा सो सरहको प्रमुखले,
- दश प्रतिशतसम्मको भेरिएसन सार्वजनिक निकायको राजपत्रांकित प्रथम श्रेणी वा सो सरहको प्रमुखले,
- पन्ध्र प्रतिशतसम्मको भेरिएसन विभागीय प्रमुखले,
- पन्ध्र प्रतिशत देखि माथि पच्चीस प्रतिशतसम्मको भेरिएसन सम्बन्धित मंत्रालयको सचिव वा सो सरहको सम्बन्धित निकायको प्रमुखले,
- पच्चीस प्रतिशत भन्दा माथिको भेरिएसन दफा २ को खण्ड (ख) को उपखण्ड (१) बमोजिमको सार्वजनिक निकायको हकमा नेपाल सरकार मन्त्रपरिषदले,
- दफा २ को खण्ड (ख) को उपखण्ड (२) बमोजिम सार्वजनिक निकायको हकमा पन्ध्र प्रतिशत देखि माथिको भेरियेशन सो निकायको सर्वोच्च कार्यकारी निकायले ।

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(२) उपदफा (१) को खण्ड (ङ) बमोजिमको भेरियेशन आदेश जारी गर्दा दफा २ को खण्ड (ख) को उपखण्ड (१) बमोजिमको सार्वजनिक निकायको हकमा सम्बन्धित मंत्रालयले विशेषज्ञहरूको समूह गठन गरी सो समूह माफत आवश्यक जाँचबुझ गराई प्राप्त सिफारिस सहित सम्बन्धित मन्त्रालयको प्रस्तावमा नेपाल सरकार, मन्त्रपरिषदले र दफा (१) को खण्ड (ख) को उपखण्ड (२) बमोजिमको सार्वजनिक निकायको हकमा सो निकायको सर्वोच्च कार्यकारी निकायले विशेषज्ञहरूको समूह गठन गरी सो समूह माफत आवश्यक जाँचबुझ गराई प्राप्त सिफारिसको आधामा मात्र भेरियेशन आदेश जारी गर्न सक्नेछ ।

(३) उपदफा (१) को खण्ड (क) र (ख) मा जुनसुकै कुरा लेखिएको भए तापनि लागत अनुमान स्वीकृत गर्ने अधिकारी भन्दा तल्लो तहको अधिकारीले भेरियेशन आदेश जारी गर्न हुँदैन ।

(४) उपदफा (१) मा जुनसुकै कुरा लेखिएको भए तापनि साठी लाख रुपैया सम्मको खरिद कार्यको पन्ध्र प्रतिशत भन्दा माथिको भेरियेशन आदेश विभागीय प्रमुखले जारी गर्न सक्नेछ ।

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Valuation of Variations

**Price Revision/ Rate Revision/ New Rates
Rate Negotiation**

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◆ Bill of Quantities Rates

◆ New Rates

◆ Revised Rates

◆ As Fixed

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Bill of Quantities Rates

- Basis for negotiation of existing BOQ rate.
- All quantities within 125% of each item to be as per BOQ rates.
- High rate item beyond 1 or 2% of Contract Price and exceeding 25% the BOQ quantity can be asked to be revised.

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Revised Rates

Minor and major item

- approved norms
- breakdown of contractor's existing rates
- contractor's overhead scenario e.g. mobilization situation.
- change of situation e.g. work nature, market rate, quarry site, taxes etc.
- effect of escalation clause if any
- effect of currency exchange rate.

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New Rate Negotiation

Basis for negotiation for New Item Rate

- approved norms for required inputs
- breakdown of contractor's existing rates of similar item for input pricing and overhead.
- Pricing of inputs on the basis of market rates, transportation etc.
- use of price escalation clause if any
- foreign currency exchange rate if applicable

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New Rate/Rate Revision

Factors considered

- Contract Clause
- Labor
- Equipment
- Materials
- Overhead (field and home office)
- Profit
- Contractor's Bid Rate
- Contractor's Rate Analysis

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Rate As Fixed

- Rates as appropriate as determined by the Engineer, such rates shall be
 - Proxy or temporary (to be fixed later or subjected to dispute.
 - This rate shall prevail if agreed by both parties to the Contract

Payment on Variations to be as per agreed terms

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Risks associated with Variations

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Risks associated with variation

- ✓ Increase in project cost
- ✓ Additional works
- ✓ Extension of contract period
- ✓ Additional escalation cost due to time extension
- ✓ Additional supervision cost
- ✓ Delay in project completion
- ✓ Absence of additional fund may lead to scope curtailment.
- ✓ May result in Claims and Disputes

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- ✓ Probable high item rate pricing for varied works due to uncompetitive rate arrived through negotiation
- ✓ Rate negotiation generally an advantage to the contractor.
- ✓ Contract could result to be more costly due to increase in quantity with escalated rates.
- ✓ Opportunity for non performing contractor for excuse for time extension.
- ✓ Possibility of Contract litigation

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Cases

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Case I

A Water Supply Contract late at its end was terminated because the works did not require some item that existed in the Bill of Quantities to be done?

The Engineer on recommendation from the Employer terminated the Contract pointing out that it was default of the Contractor.

The Contractor objected saying that he was not responsible for the outcome.

Discuss the situation.

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Case II

An item in the Bill of Quantities (supply and installation of Household wiring) increased by 1000%. The item amounted to 0.5% of the contract price. After increase it amounted to 5% of the contract price. The contractor asked for a new rate.

What is your opinion?

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Case III – Variation

In a certain case, there was a necessity to make variations to incorporate additional activities required by politicians. An estimation to this effect was made which resulted in 37% of the contract amount according to prevailing rates in the BOQ. Approval to carry out works on variations was obtained from the Cabinet. A variation order was forwarded to the Contractor for the Contractor's signature.

The Contractor signed it but commented that he is not satisfied with the rates proposed for variation and demanded that his earlier proposed rates be based for payment.

The Employer was hesitant to sign it because of the Contractor's comment in the VO form and requested the contractor to delete it. The Contractor refused.

Discuss about the variation process and its considerations?

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Case IV – Case of Variation/ KUKL

An item in the BOQ under "Excavation and Backfilling of Pipeline Trench" read:

Pipe line trench excavation in all types of soil including soil testing, shoring, forming of embankment, supporting excavation, protecting structures, dewatering, bedding, laying of warning tape and backfilling with compaction by layers including temporary facilities and safe disposal of extra material from trench excavation all complete works as per specification and as shown on the Drawing No: XXX.

The Specification provided: "the underground warning tape shall be blue color, 10 cm wide, 4 mm thick, made to PVC or polythene.

The Drawing clearly provided the position and location of Warning Tapes

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The Contractor requested for a Variation saying: That he was responsible for laying of the supplied Warning Tapes and that he was not responsible for supplying. The supply is the responsibility of the Employer or if he has to supply it should construe a Variation under the Contract.

The Engineer argued that the Specification gives the detail of type of Warning Tapes and the Drawing shows the position and gives the location of the warning tape to be placed. The BoQ requires the Contractor to complete all works as per the Specification and Drawings. The Engineer rejected the Contractor's claim.

Does Warning Tape item construe a Variation under the Contract?

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Case V – Proposal for modification of Variation Clause

In a Melamchi Water Treatment Plant Contract worth US\$ 80 million, the lowest read out priced Contractor Vinci/ Hindustan JV proposed following addition from FIDIC 1999 which read as:

- Variations may be initiated by the Engineer at any time prior to issuing the ToC for the works, either by instruction or by a request for the Contractor to submit a proposal
- The Contractor shall execute and be bound by each variation, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that the Contractor cannot readily obtain the Goods required for Variation. Upon receiving such notice, the Engineer shall cancel, confirm or vary the instruction.

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Note:

FIDIC 1987 was distributed to all the bidders that read Variations may be initiated by the Engineer at any time prior to issuing the ToC for the works, either by instruction or by a request for the Contractor to submit a proposal. The Contractor shall execute and be bound by each variation instructions.

. The second read out bidder differed by about US\$ 9 m.

Discuss this situation?

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Case VI– Variation

A Bridge Contract, to be completed in two years time, was awarded to Contractor A in Janakpur under the Division Roads Office.

The Contract was successfully completed within the assigned time period. On completion, the Division submitted a variation for approval to the DOR stating that the allocated amount towards Insurance was not necessary. The Insurance amount bid by the Contractor was NRs. 1,00,000/-. The Bid value of the Contract happened to be NRs. 20,00,00,000/-

Is this variation acceptable?

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The End

Thank You

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