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Crystallization of Disputes under FIDIC Conditions of Contract (Red and Yellow Books)



- Cristina Badea -
Head of Legal Department

The specific time when a dispute may have crystallized is of utmost importance, particularly to the Referring Party, in order to demonstrate to the Dispute Adjudication Board (DAB) that it would have jurisdiction over the case. The Responding Party may well challenge the Referral simply on the basis that the claim referred by the Referring Party had yet to crystallize as a dispute. Thus, the DAB's jurisdiction would rely upon whether a dispute exists and whether the dispute had arisen from the Contract or in connection with the Contract.

Sub-Clause 20.4 of the General Conditions of Contract (GCC) provides that any dispute "of any kind whatsoever" may be referred to the DAB. Thus, a dispute must already exist before its referral to the DAB and it is one of the DAB's primary procedural duties to establish that the dispute so referred

had indeed crystallized. In most cases, one of the Parties would have a claim and the dispute referred for adjudication would largely mirror that claim. Otherwise, there would be no valid reference to the DAB and thus, the DAB would consider that it has no jurisdiction on the case.

For the purpose of this article we should make a distinction between "claims" and "disputes", because the former need not necessarily lead to the latter. Further, the term "dispute" may not be defined under the Contract and thus, the natural meaning of the word would prevail.

Contract documents normally put the onus on the Contractor to bring to the Engineer's attention any event or circumstance as soon as he becomes aware of it. Such notice would establish the Contractor's entitlement to pursue claims for additional payment and/or extension of time that would be submitted to the Engineer for approval and subsequent determination under the Contract.

If the Engineer should fail to deal with a claim in due time it may give rise to a supplementary claim for delay. If the Engineer does deal with a claim, yet in a manner which the Contractor considers unsatisfactory and therefore disputes, the claim and the Engineer's response to it may then become the matter in dispute.





However, in many cases, a Contractor may issue to the Employer/Engineer the required notification of a claim, yet will then either by preference or by circumstance, delay the preparation of a detailed claim (with full substantiation) until such time as he is confident that all relevant facts and implications have been clearly defined and particularised. Similarly the Engineer may feel obliged to assemble all the relevant information and details of implied consequences, for discussion with the Employer, prior to being able to make the necessary decisions required of him under the Contract.

Under the provisions of FIDIC contracts, Sub-Clause 20.1 firstly provides the Contractor's obligation to issue notice, whereby absent such notice, the Contractor would have no entitlement and the Employer would have no liability in respect of the event or circumstance that may give rise to a claim. Following which, within 42 days (or within such other period as the Engineer or Employer may approve upon the Contractor's request) of the date on which the Contractor became aware or should have become aware of an event or circumstance giving rise to a claim, the Contractor is required to submit to the Engineer a fully detailed claim, which would include full supporting particulars thereof.

The sixth paragraph of Sub-Clause 20.1 obliges the Engineer to respond to a submitted claim with "approval or disapproval and detailed comments", as appropriate. Once sufficient infor-

mation has been provided by the Contractor which may be complemented with additional particulars in response to the Engineer's request, the eighth paragraph of Sub-Clause 20.1 then obliges the Engineer to proceed with determination of the claim under Sub-Clause 3.5.

It is worthy of note that although Sub-Clause 20.1 provides no time constraint on the Engineer to determine a claim under Sub-Clause 3.5, Sub-Clause 1.3 [Communications] does indeed require that Engineer's determinations "shall not be unreasonably withheld or delayed".

Sub-Clause 20.1 also provides that if an event or circumstance giving rise to the claim has a continuing effect, the fully detailed claim shall be considered as interim and the Contractor is then required to submit further interim claims at monthly intervals until the effects of the event or circumstance have ceased, at which point it should submit a final claim within 28 days from when the event ceases to have effect.

In any event, the Engineer is mandatorily required to respond on the principles of any claim within 42 days of receipt of the claim. Should the Engineer fail to respond with "approval or disapproval and detailed comments" or otherwise deals with the claim in an unsatisfactory manner, the Contractor may dispute the response (or indeed the Engineer's failure to respond) and proceed to refer the dispute to the DAB pursuant Sub-Clause 20.4 of the Contract.

Thus, in respect of claims, under the FIDIC GCC, Clause 20 provides a specific procedure prior to a matter of dispute being referred for adjudication:

- (i) the Contractor should submit a notice to claim;
- (ii) the Contractor should submit a detailed claim with supporting particulars;
- (iii) the Engineer should respond to a claim with "approval or disapproval and detailed comments";
- (iv) upon approval of the claim, the Engineer should proceed to determine the claim;
- (v) should the Engineer fail to respond to a claim with "approval or disapproval and detailed comments" within the time provided by Sub-Clause 20.1, or should the Contractor dispute the Engineer's response, it may refer the dispute to the DAB.

Typically, a dispute would arise as a consequence of the Engineer or the Employer's failure to respond to a claim, whereby the Contractor would dispute such failure as an Engineer/Employer breach of Sub-Clause 20.1. In the event that such a response is given in disapproval of the claim, then the Contractor may dispute the response as unsatisfactory.

To conclude, prior to the referral of a dispute to the DAB, the Contractor should carefully assess whether such dispute has indeed crystallized and in respect of claims, only in the event that the conditions referred to above have been met and the contractual mechanism has been complied with, may the dispute be referred to the DAB under the provisions of Sub-Clause 20.4. In other circumstances of a referral, the Contractor should ensure that it can demonstrate to the DAB that indeed a dispute between the Parties exists.





Contractor's Records as Particulars to Quantum Claims



- Corina Faget -
Quantity Engineer

Numerous delay events are likely to emerge during the course of construction projects and their measurable effects systematically lead to entitlement to an extension of the time for completion and associated additional payment thereof, when those events are attributable to the Employer.

For this reason, a contractor must record and present adequate supporting particulars to its claims in respect of any evaluation of entitlement to additional payment. Usually, Employer delay events are primarily as a consequence of breaches of contract, such as breach of FIDIC contracts Sub-Clause 2.1 [Right of Access to the Site] or other similar breaches. In these instances, the remedy would be a damages claim and therefore evaluated on the basis of additional costs expended in association with the delay to Completion and disruption to the work activities within the initial programme of works. Every additional expense or damage and/or loss calculation should be based upon, but not limited to, the interpretation of the fiscal evidence obtained from within the contractor's accounting system, the site records and the payment records.

Subsequently, the necessary adequate contractor's records for quantum claim calculations can be divided into three main categories:

- I. Information from the contractor's accounting system;
- II. Daily site records and monthly progress reports;
- III. Interim payment applications and payment certificates.

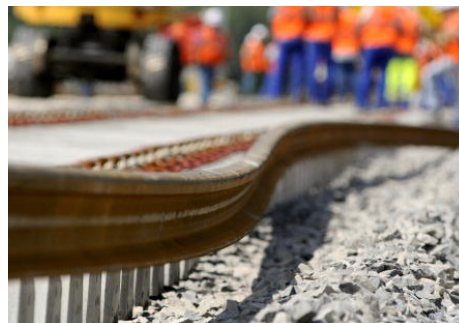
Each of the above main categories can be further explained in detail:

I. Information extracted from the contractor's accounting system

Proper analysis of the contractor's accounting system should firstly consider a period of study of the records between the commencement date of the Works and a suitably appropriate cut-off date or date of analysis. Secondly, a division of the accounting system data is necessary, in order to establish two groups of costs: (i) direct costs, or otherwise referred to as production expenses; and (ii) indirect costs, or otherwise referred to as administrative expenses.

Direct costs are fundamental to the execution of activities comprised by the Works and primarily relate to the costs of materials and delivery and handling thereof, construction equipment expenses and direct labor costs.

Indirect costs represent administrative personnel expenses, site office costs of rental, running and maintenance, the costs of



The information from the contractor's accounting records necessary to particularise these groups of costs can be described as follows:

- **Direct labour costs**, monthly payroll listings for direct labour (including skilled labour such as foremen, qualified and unqualified workers, drivers, operators and the like) sufficiently detailed to evidence the gross income (expense), employer taxes and meal tickets and the like (if any).
- **Construction equipment costs** may be divided into rented equipment, for which the contractor should provide invoices with annexes showing the equipment type and number, unit rental prices and total value, and/or evidence of owned equipment, for which the contractor should provide evidence of depreciation tables. The cost data will need to be summarized in a monthly expense format. In addition, fuel costs and other equipment consumables, along with equipment spare parts, should be centralised on a monthly basis and evidenced by the contractor.
- The contractor must be prepared to provide calculations of losses incurred as a consequence of exceptional price increases of construction materials and fuel, therefore material invoices should be presented on a monthly basis, for the main construction material components, such as asphalt materials, bitumen, steel, concrete, cement, aggregates, gas, electricity, fuel, timber and the like.
- Indirect costs of administrative personnel, should be particularised from payroll listings evidencing gross income (expense), employer taxes and meal tickets (if any). For expatriate personnel, the contractor should provide the invoices received in respect of their services, including annexes showing personnel listings by payroll number, name and skill grading details.



- In respect of **site office costs**, the contractor should provide evidence comprising *invoices* for telephone billings, other utilities such as water, gas and electricity, staff travel expenses and accommodation, furnishings, meals, office rental charges, office supplies and consumables, IT expenses and the like. For administrative personnel's **cars**, the contractor should provide car rental *invoices*, fuel and respective maintenance costs. In respect of services provided by **third parties**, such as legal services, translation, laboratory facilities, consultancy services and the like, the contractor should evidence all costs expended by means of the respective *invoices*.
- For **banking commissions**, the contractor should provide evidence of the *accounting program listing and bank statements*.
- The accounting listings of *depreciation tables* are important factor in evidencing the **costs of fixed assets** such as computers, printers, furniture, IT software licenses, small tools and the like.
- In respect of land rental costs, the contractor should produce the *invoices* received and evidence of payment in respect of each month of the respective land rental contract.
- The costs of Insurances and Guarantees should be evidenced from the respective policies and renewal of policies, all pertinent letters, payment schedules and bank statements which serve to prove payment thereof.
- For other expenses, the contractor should provide *invoices* for costs such as security services, postal services, protocols and the like, with evidence of payment thereof.
- In respect of the indirect head or **home office expenses**, the formulaic approach used in the calculation will require the contractor to provide *annually audited balance sheets*, and to prepare a written *statement* with the annual turnover of the company and the total yearly head office *administrative costs expended*.



providing cars at the disposal of administrative personnel, third party services, banking commissions, fixed assets depreciation, land rental costs and the extensive list of like, usually time-related, costs.

A significant part of the indirect costs would be represented by the project contributions to the contractor's head or home office administrative costs, which can be derived by means of specific formulae which have for some years now, been accepted within the construction industry as a viable means of ascertaining cost engineering.

II. Daily site records and monthly progress reports

Records of site production activities are of paramount importance for the calculation of damages, losses and additional expenses incurred. These daily site records, as well as the contractor's monthly progress reports,

are required to be maintained and submitted by the contractor on a monthly basis or otherwise in accordance with the contract. The records should identify the resource (both labour and construction equipment) type and count, reference code and ID for each of the work activities which can be related to the Work Breakdown Structure (WBS) of the programme of Works, and the link between the resources and the various items of work utilising those shared resources.

III. Interim payment applications and payment certificates.

The contractor should provide its payment application statements along with the letters of submission and all supporting documentation thereof. In respect of interim payment certificates, the contractor should provide the entire certificate issued along with its invoice and the respective proof of payment, in the event that such invoices have been paid.

In conclusion, the challenging task of evidencing quantum calculations is easily overcome by a methodical approach to the keeping and maintaining of adequate contractor records in all three areas, as presented above, the accounting system records, the site records and the contract payment evidence.

The purpose of a robust quantum calculation, which is required to be supported by evidence comprising a complete set of supporting particulars, is to put the contractor back to the same position that it would have been, but for the delay events as notified during the course of the contract.



Value Engineering under FIDIC Red and Yellow Books, First Edition 1999



- Mihaela Vulpescu -
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A recognised definition of Value Engineering is as follows:

“The systematic application of recognized techniques by a multi-disciplined team to identify the function of a product or service, establish a worth for that function, generate alternatives through the use of creative thinking, and provide the needed functions to accomplish the original purpose of the project, reliably, and at the lowest life-cycle cost without sacrificing safety, necessary quality, and environmental attributes of the project”.¹

Value Engineering under the FIDIC Conditions of Contract for Construction (so called Red Book) and Plant and Design-Build (so called Yellow Book) is a provision which enables the Employer to benefit from the Contractor’s experience in terms of either, or a combination of accelerated completion, reduction of the Contract Price, improved efficiency or value to the Employer of the Works, or other such benefits to the Employer.

In other words, Sub-Clause 13.2 of both FIDIC Red and Yellow Books encourages the Contractor to propose changes to the Works, which will accomplish the functional requirements of the Project, at a lesser cost to the Employer and/or improve the value or service at no increase, or a minor cost-effective increase in cost, or some other benefit to the Employer.

Falling under the provisions of Clause 13 [Variations and Adjustments], Value Engineering proposals are those Variations under Sub-Clause 13.2 which have been initiated by the Contractor and approved by the Employer, in contrast to Sub-Clause 13.1 Variations which have been initiated by instructions issued by the Engineer.

The Contractor may submit a proposal to the Engineer incorporating Value Engineering at any time. Value Engineering Proposals do not have a standard format, unless otherwise

specified within the Contract, yet in order for the Employer to approve such proposals, they should at a minimum, be comprised of the provisions of Sub-Clause 13.3, which includes:

- a) a description of the proposed changed work to be performed and a programme of execution;
- b) the Contractor’s consideration of the effects of a) on the Programme of Works established in accordance with Sub-Clause 8.3 [Programme] and consequential effects on the Time for Completion; and
- c) the Contractor’s proposal for the evaluation of the Variation, which should provide a detailed evaluation of the conforming design and its comparison with an equally detailed evaluation of the proposed revised design, taking into account all pertinent circumstances and consequences of the proposed change.



¹ US Federal Highways Administration



Financial Implications

When the Contract is governed by the FIDIC Red Book conditions, the core aspect of any Value Engineering program proposed by the Contractor is an equal sharing of any reduction to the Contract Price between the Parties that may be gained as a consequence of the Employer's acceptance of the proposal. Thus, in this respect, the Contractor would have to assess the potential benefits from the fee to which it would be entitled to receive (comprising 50% of that saving on the Contract Price) with the cost of preparing the design and being held responsible for that design at law, and the consequence of executing the changes so proposed.

Value Engineering under the FIDIC Yellow Book however, does not benefit the Contractor from any "sharing of the savings" mechanism, as the alternative design proposals that would affect the Permanent Works as approved by the Engineer, would always have been a Contractor obligation under the concept of Design-Build. Thus, the Contractor should carefully consider the implications of any proposal, in that the benefit to be gained would only be in terms of ease of construction, or cheaper more efficient methods of design and/or construction.

However, when the FIDIC Yellow Book is used as basis of project delivery system, Value Engineering is indeed Value Management because the philosophy of the Design-Build process relies on the premise that the Designer, which in this case is the Contractor, is responsible for recommending designs which result in cost savings, schedule reduction, innovative construction means and methods, product and material substitutions, which would improve the final construction in terms of cost-related performance.

Nevertheless, there are many benefits that the Contractor can bring to the construction program through a well-structured Value Engineering effort, particularly in the areas of specific Contractor's means and methods. Upon agreement with the Designer/Contractor

and Employer, then the Engineer should make his recommendations on acceptance or rejection of these proposals as appropriate.

Upon receiving a Value Engineering proposal, the Engineer should ascertain the extent to which the changes proposed by the Contractor would lead to savings in time or money and the overall value of those savings to the Project.

Subsequently, when the contract is governed by FIDIC Red Book, the Engineer will agree or determine a fee, which shall be included in the Contract Price.

For FIDIC Yellow Book contracts, the savings as a consequence of an agreed Value Engineering proposal are to be determined by the Engineer, yet they would benefit only the Employer, in exchange for the benefits enjoyed by the Contractor in pursuit of its proposal.

In addition, Sub-Clause 13.2 clearly provides the requirement for the Contractor to propose modifications to the Schedule of Payments, to be determined by the Engineer accordingly.

Therefore, the Contractor may wish to propose changes if it would be likely to benefit from its proposals, such as in the following scenarios:

- The proposal may appear to be to the Contractor's advantage, in which case it may offer a reduction to the Contract Price in order to encourage the Employer's acceptance (if such proposal would not otherwise appear to be of benefit to the Employer).
- The proposal may appear to be to the Employer's advantage, by improving the quality of the Works (by reducing the cost of maintenance or operation, or improving productivity or efficiency). This may involve an increase to the Contract Price.

Contractor's Risks Overview

The first risk that should be assessed by the Contractor prior to initiating a Value Engineering proposal is the likely preparation costs. The preparation of a Value Engineering proposal may incur substantial cost to the





Contractor, which may or may not, be recovered through the time savings or the respective fee due payable under Sub-Clause 13.2 of the FIDIC Red Book Conditions.

If the Contractor considers that the cost of preparing a fully detailed proposal may be excessive, and bearing in mind that the proposal may be rejected, it may prefer to put forward proposals in discrete stages. The first stage could initially describe the general concept of the proposed changes, together with conservative financial estimations which may include suggestions regarding compensation for reimbursement of its cost of performing the next stage, which could comprise more detailed designs. Alternative suggestions for reimbursement may be made, depending upon whether or not the outcome of the next stage would be acceptable to the Employer. This initial stage would typically be more economical for the Contractor, yet initial proposals on this basis may encourage the Employer against proceeding to the next stage.

Secondly, the Contractor should bear in mind its liability in respect of the potential delays a proposal may incur. In this respect the contract provides that subsequent to receiving a Value Engineering proposal, the Engineer shall respond *as soon as practicable* with approval, disapproval or comments.

However, no time limit is set for the Engineer to issue his response, and many disputes be-



tween the Parties have arisen over the interpretation of the meaning of “*as soon as practicable*”. Consequently, the Contractor should take into account the Engineer’s potential delay related to the analysis and approval of a

Value Engineering Proposal.

Moreover, Sub-Clause 13.3 states that the Contractor shall not delay any work whilst awaiting a response. This requirement not to delay any work is not repeated in relation to proposals which do not “*include the items listed in Sub-Clause 13.3*”, because generally the Contractor would not be entitled to claim compensation for a period in which it had waited for a response to a non-compliant proposal, which it had submitted on its own initiative.

Thus, the Contractor shall be fully liable for the time spent by the Employer and the Engineer in respect of the analysis and approval of any proposal made under Sub-Clause 13.2. Consequently, the Contractor would not be entitled to pursue an EOT, or costs or profit related to period of analysis and approval.

Conclusions

When it comes to Value Engineering, the FIDIC Red Book provides a savings equal sharing system to the Parties, whilst the FIDIC Yellow Book does not. Therefore, when the Contract is governed by FIDIC Red Book, the Employer would benefit from the Contractor’s experience and both Parties would equally share the savings thereof (if any).

In the case of the FIDIC Yellow Book, the Contractor had an obligation to have already “value engineered” his designs at the tender stage. However, should a further and post-Contract Value Engineering proposal be of benefit to the Contractor, the latter may pursue the Employer’s approval by offering a reduced Contract Price and/or added value to the Works.

Nevertheless, prior to the submission of a Value Engineering proposal, a contractor should carefully weigh the benefits of implementing such proposals with the potential risks arising from a rejection or a delayed approval of the Value Engineering proposal and any other, often hidden, disbenefits that may be a consequence of the Employer’s acceptance.



Techno Engineering & Associates is pleased to announce its upcoming Summer Special Edition Newsletter featuring the article:



Interim Enforcement of DAB Decisions in International Arbitration, Part I

by Mr. Giovanni Di Folco and Mr. Mark Tiggeman

This article will address some of the most important issues on the enforceability of a DAB Decision, particularly emerging from the Persero cases. Also, it will include some warnings about potentially important procedures when seeking to maximise the chances of the enforcement of an early DAB decision. The second part will focus on the authors' international arbitration experience applying for and obtaining such enforcement over the last 5 years.

Do not miss this chance to get intriguing insight from the DAB spectrum, including the civil engineering and construction side and the international arbitrator and lawyer side.



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