

The rainbow suite

The 1999 FIDIC suite

This is a series of articles being published in **CES**¹ with the post 1999 editions of the FIDIC suite of contracts being the overall subject matter.

Following an introduction to FIDIC and its 1999 suite of contracts the joint authors, **Paul Batrick**² and **Phil Duggan**³ of **Driver**⁴ will discuss many practical issues of using FIDIC contracts. Their thoughts and opinions are based upon actual working experiences of working with many FIDIC contracts both past and present.



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A Brief History

FIDIC is the French acronym for the International Federation of Consulting Engineers. It was formed in 1913 by three national associations of consulting engineers. From its base in Geneva it now has members from some 86 member associations worldwide.

Whilst best known for drafting contracts between an Employer and a Contractor, FIDIC also drafts model agreements for professional services:

- Client and Consultant
- Client and Architect
- Joint Ventures between Consultants
- Sub-consultant Agreement
- Representatives Agreement

Indeed FIDIC provides many other publications and is involved in many initiatives in an attempt to fulfil its stated mission; "To improve the business climate and promote the interests of consulting engineering firms globally and locally,

consistent with the responsibility to provide quality services for the benefit of society and the environment". FIDIC's vision is to be the industries recognised global voice.

FIDIC's Employer / Contractor contracts, first issued in 1957, have a distinctly British feel to them. These early contracts were work style based such that the Red Book was relative to civil engineering works; the Yellow book was relative to electrical and mechanical works with erection at site; and the Orange Book was relative to turnkey or design and build projects.

The Red Book first issued in 1957, and having four major revisions, was borrowed much from the ICE forms of contract whilst the Yellow book leant upon the forms of contract drafted by the IMechE / IElecE.

The Orange book was published in 1995 due to a growing trend towards design and build projects and at that time FIDIC recognised that the world of contract drafting was moving on, indeed the Orange Book contained Dispute Adjudication Board (DAB) provisions; the Red Book had, in 1996, a DAB supplement published by FIDIC.

The drafting committee of mostly consulting engineers and its many advisors began to work and in 1999 the FIDIC 1999 suite of contracts were born.

The FIDIC 1999 Suite of Contracts

At this juncture it is worth noting that the FIDIC 1999 contracts are not a revision of previous forms; hence "First Edition" within their titles.

Sponsored by perhaps a desire to create the dominant forms of contract relative to all forms of construction project coupled with the changing face of construction a complete overhaul took place.

The most fundamental change to the new contracts being the abandonment of the work based contract; it being replaced by contracts that recognised which party was to be responsible for the design of the Works (or the vast majority of the Works) and where risk would be allocated.

FIDIC issued three contracts for major works and one for minor works. It is the three major work contracts that have become synonymous with the term "FIDIC Contract". Those being:

- The Red Book = Conditions of Contract for Construction for Building and Engineering Works Design by the Employer, also known as the Construction Contract
- The Yellow Book = Conditions of Contract for Plant and Design – Build for Electrical and Mechanical Plant, and for Building and Engineering Works Designed by the Contractor, also known as the Plant and Design-Build Contract
- The Silver Book = Conditions of Contract for EPC/Turnkey Projects, also known as the EPC/Turnkey Contract

The fourth contract to be issued was the "Short Form of Contract" to be known as the Green Book.

To avoid any confusion it may have been better to avoid the repeated use of "Red Book" and "Yellow Book" and adopt a totally new range of colours from the outset since many contracts are still let based upon pre-1999 FIDIC contracts.

In 2001 FIDIC published a Contracts Guide to the three major forms of contract; it has

become known as the Rainbow Book and FIDIC has perpetuated the rainbow theme by encouraging all of its subsequently issued contracts to be known by the colour of their covers.

The New Red, Yellow and Silver Books

As previously noted a fundamental change adopted by FIDIC when drafting these contracts was to move away from a work style to a contract that reflected where the responsibility for design would be allocated.

These contracts were also intended to be used both on the international market and domestic markets, although it is suspected that the vast majority of sales of the various forms relate to projects where the nationalities of the contracting parties differ.

FIDIC not only sought to issue a new suite of contracts but also, and to its credit, sought to make the contracts user friendly and create a best practice manual for contract administration. The latter being a topic for a subsequent article.

To aid all users the task group drafting the contracts were instructed to standardise the three new major forms. The results being that, unless differences were essential, definitions, layout, clause numbering, and clause wording were identical.

Accordingly the Red, Yellow and Silver Books contain only twenty clauses; the last edition of the old Red Book contained seventy two clauses whilst the old Yellow Book fifty one clauses.

An example of standardisation being, whereas in the old Red Book clause 67 was headed "Dispute, Engineer's Decisions" and in the old Yellow Book clause 50 was headed "Disputes and Arbitration" the 1999 suite of contracts, at clause 20, prescribe the conditions under which the Contractor, the Engineer and the

Employer should act through the "Claims, Disputes and Arbitration" procedure.

First impressions of the 1999 suite maybe off putting since the purchased document appears to be much larger than previous editions, for instance the new Yellow Book has, in total, over 100 pages whereas the old Yellow Book has less than 50 pages. This is all part of the FIDIC's desire to produce a document that is easier to use than previous FIDIC contracts and also other contracts from which Employers and Engineers can choose.

The general layout of the Contracts is as follows:

- General Conditions; including an Appendix entitled General Conditions of Dispute Adjudication Agreement which includes the Procedural Rule for a DAB
- A section giving guidance for the preparation of any Particular Conditions; this section also includes examples of guarantees, securities and bonds that are commonplace on international projects
- A section entitled Forms; here FIDIC provide examples of:
 - Letter of Tender with supporting Appendix to Tender
 - Contract Agreement
 - DAB Agreements (either a one-person DAB or three person DAB)

Whilst the above can be considered to be the most important elements within a Contract, FIDIC have continued to be helpful to those using its contracts. Within the very useful Forward to the Contract there are three graphics indicating timelines relative to:

1. Principle events from invitation to tender to return of the Performance Security

2. Payment procedures under clause 14 Contract Price and Payment
3. The sequence of events under clause 20 Claims, Disputes and Arbitration following either Party giving notice of its intention to refer a dispute to a DAB

All in all a very complete document that should require few amendments however, as we shall see in a later article the document is not only used but is abused.

The Engineer

Before noting some specifics regarding the Red, Yellow and Silver Books it is worth noting that FIDIC have amended the role of the Engineer in the Red and Yellow Books (the Silver Book has an Employer's Representative) from the impartial, quasi arbitral role of previous editions. The Engineer is clearly stated to act for the Employer. He is no longer required to be impartial but whenever required to make a determination in respect of value, cost or time related matter he has to make his determination fairly, and in accordance with the Contract, having taken into consideration all relevant circumstances.

The FIDIC 1999 First Edition Red Book

The main features of this Contract can be summarised as:

- It is suitable for all types of project where the main responsibility for design lies with the Employer (or its Engineer) although provision is made for the Contractor to design elements of the Works
- The administration of the Contract and approval of work is carried out by the Engineer as is certification of payments and determination of extensions of time
- Payment to the Contractor is based upon work done and rates as per a Bill of Quantities (a Standard Method

of Measurement should be stated); thus reflecting the likely on site nature of the Works (a reflection that the Red Book will most likely be used for building and civil engineering projects)

- Risk sharing is balanced between Parties such as the Employer taking the risks of "adverse physical conditions" and the "operation of the forces of nature" that are considered to be unforeseeable
 - Claims by both Parties have to follow procedures, albeit the conditions imposed upon the Contractor are harsher with the inclusion of a "fatal" notice provision
 - The Contractor has some financial protection in that it can request evidence from the Employer that it has the finances to pay the estimated Contract Price
 - Materials can be paid for both on and off site if strict criteria are followed, including the listing of materials for which payment maybe sought within the Contractor's tender
- Payment to the Contractor is based upon a Lump Sum price and normally against a schedule of milestones to be achieved by the Contractor. This reflects that the Yellow Book will most likely be used for process plants and the like where a high degree of offsite manufacture of plant and equipment is foreseen and payment terms can be drafted to recognise this situation subject to the listing of such plant and equipment within the Contractor's tender as within the Red Book
 - Testing procedures leading to completion are likely to be more complicated than within the Red Book, again reflecting the likely nature of the project
 - The Yellow Book shares with the Red Book the provisions noted above relative to:
 - Risk sharing
 - Claims by both Parties
 - Financial protection for the Contractor

The FIDIC 1999 First Edition Yellow Book

The main features of this Contract can be summarised as:

- It is suitable for all projects where the main responsibility for design lies with the Contractor based upon the Employer's Requirements although provision is made for the Employer (or his Engineer) to design elements of the Works
- The administration of the Contract and approval of work is carried out by the Engineer as is certification of payments and determination of extensions of time

The FIDIC 1999 First Edition Silver Book

The Red and Yellow Books are said to provide contracts with a balanced view of risk sharing meaning:

- The Employer pays the Contractor only when specific risks occur
- The Contractor does not have to include within its tender for risks that are difficult to value

The above means that the Employer has a great degree of uncertainty in respect of the final price and the final time for completion.

The Silver Book reflects a market desire for certainty of cost and time; perhaps by a "one off" Employer or a totally risk adverse Employer willing to "pay the price" or

potentially by lenders who crave certainty of price and time, such that the risk allocation is far from balanced.

The Contractor is asked to allow within its tender for a wide range of risks relative to cost and time; such risks will most likely include all ground conditions (potentially in a country of which the Contractor will have little knowledge) and the completion of the Works will be based upon a strict but often brief performance related specification.

The Employer will still bear some risks such as those related to war, terrorism and Force Majeure but the unbalanced risk profile of this Contract will undoubtedly be a higher price; a factor that Employer's must accept.

The main features of the Silver Book can be summarised as:

- Design liability rests solely with the Contractor, the Employer will provide its requirements but these are often in the form of a brief performance specification
- The Contractor carries out all engineering, procurement and construction often including performance tests after completion; a "turn-key" project allowing operation of the facility upon completion
- There is not an Engineer within the Contract; the Employer may appoint an Employer's Representative
- It is lump sum Contract with payment terms most likely similar to those envisaged under the Yellow Book

Given the above circumstances under which an Employer may select a Silver Book, Employer's should recognise the significant costs for a Contractor to produce a tender. Accordingly it is hoped that Employer's recognise this and select

only a small number of Contractors to tender.

Similarly Employers have chosen a turnkey style of contract and therefore should allow the Contractor complete freedom to carry out the Works in its chosen manner in order to reach any performance criteria laid down by the Employer.

If the Employer cannot grasp such factors, or the tender time is too short to allow the Contractor to compile an adequate tender, or considerable amounts of work are underground, or difficult to inspect the Employer may be better off using a Yellow book, accepting some additional risks and receiving a lower tender price.

The FIDIC 1999 First Edition Green Book

The final contract to be issued in 1999 was the Green Book or Short Form of Contract. This Contract recognised a need for a much simpler and shorter contract to suit projects with a relatively low Contract Price and short time duration.

The Contract itself is very flexible, any reader will however recognise the Contract as being from the same family albeit it has only fifteen clauses and a total of ten pages.

The clauses are short and easily understood; whilst design can be carried out by either party an Engineer is not foreseen, however the Employer may appoint a Representative. Payment can be made on either a lump sum or remeasured basis.

As with the major forms the Contract includes guidance notes (noted as not forming part of the Contract) as well as an Agreement together with its Appendix and Rules for Adjudication. The noticeable absentee being the Particular Conditions section; in this respect FIDIC consider that the Green Book can work without such conditions however, a cautionary note is provided should an Employer deem it necessary to amend the drafted Contract.

A final thought

Without doubt FIDIC broadened its appeal to those selecting contract forms, whether they be Employer, Engineers providing advice, project funders such that there was a contract for every occasion.

Nevertheless FIDIC continued to draft contracts to recognise the marketplace and sectors of the construction industry as will be discussed in a subsequent article.

Introduction

First a brief introduction followed by an overview of various forms.

The White Book

As previously noted FIDIC also drafts, as well as contracts between an employer and contractor, many agreements between "client and consultant". The "Client / Consultant Model Services Agreement", now in its fourth edition, issued in 2006, it has become known as the White Book.

The Blue Book (or Turquoise Book as it is sometimes called)

This form is designed specifically for use in connection with dredging and reclamation projects. It differs from the major forms in many ways but perhaps most importantly that it was drafted in close collaboration with the International Association of Dredging Companies (IADC) and as such has a great input from contractors from the outset. The current version of the Form of Contract for Dredging and Reclamation Works is the fourth edition issued in 2006.

The Pink Book

Whilst funding agencies adopted the versions of old and new Red Books for many years it became standard practice to amend certain clauses. In response to the Multilateral Development Banks' (MDBs) desire to harmonise their bid documents including a standard form of contract, FIDIC responded by issuing the Conditions of Contract for Construction MDB Harmonised Edition; the latest version being issued in 2010.

The Gold Book

This form of contract is probably the most radical of the new colours; it represents a contract period of over 20 years! It is a design, build and operate (DBO) contract that the industry has needed for some time to reflect the ever growing trend that contractors no longer construct something then go away but also maintain and operate the facility for many years to come. It has been described as a Yellow Book with an operate and maintenance contract bolted on; the First Edition of the Conditions of Contract for Design, Build and Operate Projects was issued in 2008.

No colour as yet, but a subcontract...

FIDIC has often issued a new form of contract as a "test edition" such that the construction industry can review the proposed conditions of contract whilst perhaps using them in a real life situation. The latest test edition again is a departure from the engineer driven FIDIC organisation since it delves into the world of the contractor and subcontractor, although it is noted that advice was

sought from many working for and with contracting organisations.

The results being the Conditions of Subcontract for Construction for Building and Engineering Works designed by the Employer issued in 2009. As the title of this form suggests it is for use with the Red Book and the Pink Book. It is the second attempt at creating a subcontract since FIDIC issued one in 1994 relative to the old Red Book

Overview of the various forms

The White Book

The drafters of the White Book are predominately engineers who within this form sought to create conditions of agreement that would span the life cycle of an engineer's or consultant's involvement.

Accordingly the document is suitable for use during:

- pre-investment and feasibility studies
- the design phase
- the administration of a contract

As with FIDIC contracts there are both general and particular conditions of contract which combined set out the scope of the consultant's work, payment terms and the like.

The White Book incorporates the same financial protection as afforded to contractors in that the consultant too can ask the Client (as opposed to the Employer) if it has the ability to pay the Consultant's fees. In a similar vein, and maybe not surprising to some, the White Book limits the consultant's responsibilities, and therefore liabilities, to "exercise reasonable skill, care and allegiance in the performance of his obligations under the

Agreement". This limitation is further qualified since nothing else in the agreement, or any legal requirement of the Country or any other jurisdiction can impose a greater risk upon the consultant. Thus the consultant/engineer has a limited risk that, it is suggested, is not in accord with the thoughts of employers and contractors alike.

The Blue (Turquoise) Book

The Blue Book is like the Green Book in that it is abbreviated and flexible. In terms of being a smaller document the general conditions are only 16 pages and fifteen clauses long. The format has also changed from the major forms with the agreement and appendix to the contract being the first section. Perhaps it is the major forms that have the order incorrect since it is those particular terms that are the most important to recognise especially in such a flexible form as the Blue Book.

Similarities with the major forms are in the inclusion of standard forms, such as securities, a section on adjudication (a one or three person DAB) with rules and the adjudicator's agreement and the all important guidance section.

The engineer is still recognised within the contract however design responsibility can rest with either the employer (and its engineer) or the contractor. Payment terms are extremely flexible and a list of options, such as lump sum, remeasurement and cost plus are all noted within the appendix.

It is perhaps apparent that a greater input of a contractor's organisation has influenced some of the general conditions, as has perhaps the use of other forms within the industry as a whole:

- Notices by the contractor in respect of a claim must be given within 28 days but there is no fatal provision.

- Claim items are listed as defined risks which may entitle the contractor to monetary or time compensation.
- The defined risks, recognising the likely impacts of weather upon the contractor's ability to make progress, potentially soften the usual clause wording on one hand, entitling the contractor to make a claim if "any operation of the forces of nature affecting the Site/and or the Works", which was unforeseeable or against which an experienced contractor could not reasonably have been expected to take precautions" but give the employer (and contractor) less room for debate by also defining the employer's risk to be "climatic conditions more adverse than those specified in the Appendix".
- If disputes are not settled amicably they are to be settled by referral to adjudication by a DAB and, if dissatisfied with the DAB's decision (or if no decision is made within the set timescale) the dispute can be referred to Arbitration.

The Blue Book is a model of a contract drafted by those with a particular section of the industry in mind and with the knowledge to incorporate the necessary variations to standard forms that may have been considered for use in the past.

The Pink Book

As previously noted the Pink Book was created as a derivative of the Red Book. This reflecting the usual nature of a project that would require funding from lending or aid agencies and would deploy from the outset an engineer to assist in all phases of the project, especially design.

Those projects normally being infrastructure types of projects as opposed to industrial, power, process plants and the like where funds would normally be from the employer's own resources and the

contractor would design the facility; in other words a Yellow or Silver Book project.

The MDBs include in their number such organisations as:

- The World Bank
- The European Bank for Reconstruction and Development
- African Development Bank

The MDBs in fact represent lending agencies that fund projects on a global basis and as such play a crucial role in the development of the planet's lasting infrastructure. With this level of importance in mind it was crucial that FIDIC participated in amending the Red Book to provide a contract not only that adhered to the wishes of the MDBs but also gave borrowers, engineers and contractors some consistency in format, leading to fewer ad-hoc and poorly thought through amendments.

Those faced with a Pink Book will have often been used to the Red Book and therefore will be familiar with the general layout of the contract, the twenty clauses are still there but there have been amendments which some may think are for the better, and others otherwise. Examples being when compared to the Red Book:

- Minor amendments have taken place to definitions of which one is worthy of being noted:
 - Cost no longer refers to reasonable profit but states profit since at clause 1.2 profit is fixed at 5% unless stated otherwise in the contract data.
- clause 1.5, is a new clause that allows the lender's representatives to inspect the site and audit the contractor's accounts and records relative to the project

- clause 2.1, access to the site must be given such that the programme can proceed “without disruption”
 - clause 2.4, the employer has to demonstrate its ability to pay the contract price before “the commencement date” and also “punctually”
 - clause 2.5, the employer must now give notice of its claims within 28 days but whilst more onerous there is still no condition precedent
 - clause 3.1, the engineer has to gain the employer’s approval before dealing with matters under clauses dealing with claims in respect of unforeseeable physical conditions and the issue of variations
 - clause 3.5, the engineer now has to give its determination “within 28 days from receipt of the corresponding claim or request...”
 - clause 6.2, there is an obligation upon the contractor to inform its personnel of their liability to pay local income tax
 - clause 8.1, the project cannot commence unless:
 - the contract agreement has been signed by both parties
 - the contractor has reasonable proof that funding is in place
 - the advance payment has been received by the contractor
 - clause 8.6, the contractor can be paid for acceleration measures to overcome employer delays
 - clause 13.1, the contractor is not bound to carry out a variation if it would “trigger a substantial change in the sequence or progress of the works”.
 - clause 15.5, whilst the employer can terminate for convenience it cannot terminate to pre-empt a just termination by the contractor.
 - clause 15.6, is a new clause that attempts to deal with corrupt and/or fraudulent practices.
 - clause 16.2, the contractor must now demonstrate that the employer’s failures must “materially and adversely affect the economic balance of the contract and/or the ability of the contractor to perform the contract” prior to termination. There are however two further grounds allowing the contractor to terminate:
 - Failure of the funder to provide funds.
 - The absence of the engineer’s instruction to commence work 180 days after the letter of acceptance.
 - clause 19.2, in order to claim force majeure the claiming party must demonstrate that it has been prevented from performing “its substantial obligations”
 - clause 20.6, arbitration rules may differ according to the origin of the lending agency.
- The amendments to the Red Book appear to be a mixed bag providing support to the contractor in terms of guaranteed funding but also apparently allowing the employer influence over the engineer in respect of claims for unforeseeable ground condition and variations.
- The latter is not considered to be prudent especially when considering that borrowing countries may not have the sophistication necessary to deal with such matters.

The Gold Book

The Gold Book without doubt fills one of the last gaps in FIDIC's toolbox of contracts. Its use is growing especially as government departments such as water authorities warm to the idea of having foreign contractors bring their knowledge of providing water treatment and supply at a profit but also having to be responsible for remedying defects whilst remaining in the country rather than being on the side of the globe.

Accordingly FIDIC has not only responded to employers who crave to outsource but also the changing face of contractors who are now operators too. Any potential disputes between contractors carrying out a design and build contract to questionable standards leading to poor performance, defects and disputes whilst leaving the employer to struggle through a 20 year life time of a plant have, potentially, been negated. That is, provided the whole scheme is fully thought through and both parties, as with all contracts, are willing and able to act responsibly towards each other such that a balance is struck between the construction and operating elements of the contract.

The contract's ethos and key features are:

- Design, build plus operation and maintenance for 20 years by the contractor on a green field site.
- Design and build phase risk allocation similar to the Yellow Book with exacting completion criteria but also a cut off date should the contractor be 182 days late leading to termination if desired.
- Payment on a lump sum basis but a defined asset replacement fund and schedule that notes the timing and cost of the replacement of certain assets. Costs of replacing plant and equipment outside of the schedule

will be the responsibility of the contractor, as is a cost over that stated on the schedule. Any surplus in the fund at the end of the twenty years is divided equally.

- The employer is entitled to deduct 5% from payments during the "operation service period" (OPS) in case the contractor does not fulfil its maintenance obligations. The fund is to be released, if not spent, within the final payment to the contractor. The contractor being responsible for its own defects arising from design and construction in this period.
- An independent audit body is jointly appointed for the duration of the OPS to monitor the performance of the contractor and employer. Whilst having no power, the parties are intended to give "due regard" to matters raised by the audit body.
- A joint inspection is required at least two years before the end of the OPS; any works identified must be carried out by the contractor who will also face completion tests similar to those at the end of the design and build phase. Defaulting contractors risk losing the 5% maintenance retention fund.
- A standing DAB is established from a set date for the design and build phase and a new one every 5 years during the OPS.

The key to success appears to be with the contractor who must design and build a quality plant with low operating and maintenance costs; fit for purpose and built to last.

However, like any relationship time gives rise to change and only time will tell if FIDIC have considered all factors such as changes in the deliverables required by the employer. FIDIC has very recently issued its guide to this form.

The Subcontract to the Red and Pink Books

As noted this form is a test edition with the first edition arriving sometime later.

The contract seeks to be back to back with the Red Book, in this respect selected highlights or lowlights are:

- The subcontractor is required to complete its scope of works such that no act or omission shall constitute or cause a breach under the Red Book.
- The contractor is entitled to make a "fair decision" in respect of its claims towards the subcontractor and deduct monies accordingly.
- Payments are back to back (where legal to do so) such that subcontractors may find contractors using this as a shield to avoid paying for their own problems
- The subcontractor is apparently responsible for the care of its works until the main contract works are taken over. This situation will always require careful management whatever the form of contract
- Notice provisions are passed through to the subcontractor but with a reduction in time to 21 days to allow the contractor to fulfil its obligations under the main contract.

A subcontract that allows both fair payment provisions for the subcontractor for all liabilities of the contractor whilst obliging the subcontractor to allow the contractor to make claims upwards will always be a tough ask; has FIDIC really got it right? Perhaps the absence of subcontractors from the drafting committee is a clue.

A final thought

FIDIC has continued to broaden its potential customer base by these further contracts. The next stop could be a target price contract but it is understood that we will see a complete overhaul of the 1999 suite in the not too distant future.

This is the third in a series of articles being published in **CES**¹. The first introduced the rainbow suite, the second provided insight into the continued growth of the suite.

In this the third article by joint authors, **Paul Battrick**² and **Phil Duggan**³ of **Driver**⁴, commenting upon the FIDIC forms of contract the programming requirements are considered in conjunction with the procedures in respect of progress reporting. The Parties to the Contract and the Engineer, but in particular the Contractor, all have clear obligations in respect of the programming and reporting functions within the FIDIC forms.

Programming and Reporting A Benefit or Burden for the Contractor and the Employer and its Engineer?

In this the third article commenting upon the FIDIC forms of contract the programming requirements are considered in conjunction with the procedures in respect of progress reporting. The Parties to the Contract and the Engineer, but in particular the Contractor, all have clear obligations in respect of the programming and reporting functions within the FIDIC forms.

It is considered that these obligations are intended to be considered in tandem with the provisions for considering claims submitted by the Contractor such that any Contractor who neglects, or is allowed to neglect, its obligations may face a more difficult task to establish its entitlements than a Contractor who has fully complied with its obligations.

For the purposes of this article all references to Sub-Clause are taken from the Yellow Book; in simple terms the Contract for design and build projects

where the design is carried out by the Contractor.

The drafters of the FIDIC suite of contracts, and many commentators, say that the FIDIC contracts not only provide the mechanisms for dealing with risks, responsibilities, payment terms, change and all the other good things necessary to allow a project to be completed in a managed and (hopefully) equitable fashion but they also act as a best practice project management handbook.

The project management handbook is most prevalent within the programming and reporting provisions and no doubt the FIDIC drafters consider what they thought the Contractor and the Engineer should be aware of in order that control of the project was to the fore and certainty of outcome, especially in respect of progress, was assured.

Many of us, and perhaps some FIDIC drafters, will have received lectures in management at some stage of our careers and many will know the mnemonic.

Family **P**lanning **O**ften **M**eans **C**areful
Choice of **C**ontraceptives

Management handbooks quite rightly look to the perfect world however the real world is one of harsh commercial realities and shortcomings in performance in many respects where, should a Contractor allow within its bid for every risk and obligation it would certainly lead to lost tenders. As with all things compromise is often the

solution however, to compromise in respect of programming and reporting may not be such a wise course of action.

The FIDIC Yellow Book envisages the typical procedure to be expected in establishing a contract for a design and build project:

- Invitation to bid (ITB) with Employer's Requirement included, no doubt a timescale for the completion of the project was stated.
- Contractor's bid complying or otherwise with the ITB, including a timescale which was probably detailed to some degree noting any required milestones and/or those of importance to the Contractor, such as the provision of feedstocks.
- The coming together of the Employer and the Contractor to create a contract detailing without ambiguity a shared understanding.

It is now that Clause 8, Commencement, Delays and Suspension takes over, and for the purpose of this article Sub-Clause 8.3 Programme in particular.

The Contractor, will have agreed or accepted the Time for Completion noted within the Appendix to Tender and the Engineer will have issued a notice of the Commencement Date. Assuming all other formalities are in place, such as the provision of the Performance Security, the dates for commencement and completion of the Works, including any Sections, are now anchored.

Sub-Clause 8.3 Programming

Now Sub-Clause 8.3 takes over!

It is suggested that all programmes in existence at this point in time should be

cast to one side as from now on only one programme will matter; the Sub-Clause 8.3 programme and of course the revisions to it.

This programme will be, or should be, a baseline against which the performance of the Contractor and the Employer, if appropriate, will be monitored, claims for extensions of Time for Completion will be based upon and Engineer's instructions to expedite progress will be based. Its importance cannot be stressed enough.

However, the requirements upon the Contractor of Sub-Clause 8.3 goes further than producing a programme; the Contractor is required, for the first time to bear its soul before the Engineer for scrutiny. Whilst the details to accompany the programme may seem quite normal to most they are an obligation upon the Contractor.

The Contractor has to submit, to the Engineer, its detailed programme within 28 days after receiving the notice of the Commencement Date. Realising that the programme will not be perfect and will be subject to revision not only to take account of actual progress but also to take account of other factors such as sub-suppliers and sub-Contractors programmes being agreed as orders and contracts are placed, the FIDIC drafters placed a further obligation upon the Contractor to submit a revised programme whenever the previous programme becomes, in effect, out of date and does not reflect the manner in which the Contractor will achieve its obligations.

Every time the Contractor submits a revised programme it must include:

- the order in which the Works will be carried out
- the timing of each stage of design, preparation of Contractor's Documents, procurement,

manufacture, inspection, delivery to site, construction, erection, testing, commissioning and trial operation

- the periods allowed for the Engineer to review documents submitted by the Contractor (Sub-Clause 5.2) and any similar submissions, approvals and consents specified in the Employer's Requirements
- the sequence and timing of inspections and tests specified in the contract
- a supporting report which includes:
 - a method statement noting the major stages of execution of the Works
 - the Contractor's reasonable estimate of the numbers of each class of Contractor's Personnel and each type of Contractor's Equipment required at Site for each major stage of the Works

Having received all of this information at the outset of the project and every time the programme is updated the Engineer has 21 days in which to state, by a issuing notice, that it does not comply with the contract; note that the Engineer does not have to approve programme should the Engineer not issue such a notice the Contractor must proceed in accordance with the programme; in doing so the Contractor should be aware that the Employer will rely upon that programme in arranging any feedstocks and other inputs it has to facilitate the completion of the Works.

FIDIC is silent as to what should happen if the Engineer gives notice that the programme "does not comply with the contract"; as to what non-compliance

with the contract actually means maybe left to the Engineer's interpretation. It is considered that it should mean compliance with dates and periods of time stated within the contract including working hours and periods for approvals etc by the Engineer but should an investigation take place into the level of resources and methods the Contractor intends to use, probably not. Nevertheless the Contractor has provided to the Engineer an insight into such things as its intended resources which, as we all know, is also often the starting point for many a claim prepared by a Contractor.

As noted the Sub-Clause 8.3 programme is the baseline against which the Engineer will monitor the Contractor's progress and the Contractor's ability to meet the Time for Completion and decide whether or not to issue instructions to the Contractor to prepare and issue a revised programme and supporting report detailing how the Contractor will accelerate the Works, as its own cost and potentially with claims from the Employer to complete with the Time for Completion.

There is one other obligation of Sub-Clause 8.3 that is worth nothing; the Contractor is to inform the Engineer of:

- specific future events or circumstances which may diversely affect the work (note the Works is not used)
- increase the Contract Price
- delay the execution of the Works

It is also worth noting that the Employer does not have a similar obligation.

The Contractor has to submit estimates relative to these occurrences and/or a proposal under the Variation Procedure if applicable.

Early warning clauses such as this are now commonplace and there is no noted sanction for non-compliance by the Contractor however, Contractors should consider this provision in the light of the fatal notice provisions under Sub-Clause 20.1 (a topic for later discussion).

Sub-Clause 4.21 Progress Reports

Having given the Engineer an insight into its initial and revised programmes and resourcing levels the Contractor is obliged to prepare reports, on a monthly basis, that reveal yet more of the Contractor's progress towards Completion.

The monthly reports can be quite a time consuming exercise to complete since they require a considerable amount of detail, let alone six copies to be issued. Each report must include:

- charts and detailed descriptions of progress including:
 - each stage of design (possibly relevant to the major stages identified within the Sub-Clause 8.3 programme)
 - Contractor's Documents (a defined term including calculations, computer programmes, drawings and models)
 - procurement, manufacture and delivery to site
 - erection, commissioning and trial operations
- photographs showing the status of manufacture and of progress on the Site
- for the manufacture of each main item of Plant (apparatus, machinery and vehicles to be

incorporated into the Works) and Materials (things of all kinds, other than Plant) to be incorporated into the Works)

- the name of the manufacturer
- the manufacturer's location
- percentage progress
- actual or anticipated dates of:
 - commencement of manufacture
 - Contractor's inspections
 - Tests
 - shipment and arrival at site
- records of the numbers of the Contractor's Personnel (the Contractor's staff, Sub-contractor staff and anyone else working at the Site)
- records of the Contractor's Equipment (types and details of plant and vehicles used by the Contractor, its Sub-contractors and anyone else working at the Site)
- copies of quality assurance documents, test results and certificates of Materials
- list of Variations, notices given by the Employer of its intention to make a claim towards the Contractor and notices of claim issued by the Contractor
- safety statistics, including details of hazardous incidents, activities relating to environmental aspects and public relations

- comparisons of actual and planned progress
- details of any events or circumstances that may jeopardise the Contractor's ability to meet the Time for Completion or any interim milestones (it is noted that this is another opportunity for an early warning of potential delay by the Contractor)
- measures being adopted or to be adopted by the Contractor to overcome delays (it is not certain if this relates to recovery measures being adopted as a result of an Engineer's instruction and/or measures voluntarily adopted; the latter is most likely given the required comparison in respect of progress)

Whilst most Contractors will readily have to hand, whether allowed for in the bids or not, the resources and management structure to comply with the reporting obligations within Sub-Clause 4.21 it is clear that those working for the Contractor, Sub-contractors, Sub-suppliers and specialist design houses must also provide the countless pieces of information required to allow the Contractor to conform.

It is suggested that perhaps Contractors who are not used to FIDIC, such as those from Eastern Europe, who may find themselves working on externally funded projects may find these obligations outside of their normal reporting capabilities. Similarly some Engineer's may also find the administration of this aspect of FIDIC somewhat difficult to achieve, albeit it gives the Engineer the perfect platform to report to the Employer.

Benefit or Burden?

To consider whether or not the programming and reporting obligations

are a benefit or burden for the Contractor, a simple question must be asked, what does the Contractor (and all other parties involved for that matter) really want from a project?

After the difficulties of bidding and winning a project the Contractor will desire certainty and to construct with control. That being, amongst other things, certainty of:

- Contribution to overheads and profit, the lifeblood of any business
- Timely completion, to allow the planned movement of resources towards the next project
- Completion to the required quality standards, to enhance reputations
- A dispute free project, to avoid the time consuming and expensive use of resources

Whilst far easier to say than to achieve; to obtain certainty it requires all involved with the Employer's, Engineer's and Contractor's organised to fulfil their obligations to the standards required and at the right time.

The initial Sub-Clause 8.3 programme not only provides the Engineer with a yardstick to measure projects against but it also allows the Contractor to inform the Employer when critical inputs such as free issue materials, electricity, gas, water or feedstocks are required. It is therefore something for the Contractor to measure the Employer's performance against and every updated programme and report should therefore contain a statement regarding the progress of the Employer's obligations as well as the required information regarding the Contractor's progress. There should be no hindrance from either the Employer or the Engineer to the Contractor taking a proactive stance in relation to a desire to complete the Works without delay from the Employer's quarter.

It is clear however, that the focus, on the Sub-Clause 8.3 programme and its revisions is on the Contractor's performance. Despite this opportunity to set out a clear statement of intent that is capable of demonstrating cause and effect in respect of delay to the Time for Completion all too often Contractor's produce programmes that are inadequate at the outset, possibly due to a lack of information from suppliers etc, and continue to be inadequate when revised.

A good programme that is properly maintained is without doubt, a double edged sword; it allows the Contractor to identify its own shortcomings and take instant remedial action as well as identify delay that falls under the risk area of the Employer such that an extension to the Time for Completion can be instantly requested and hopefully determined by the Engineer such that the risks of completion fall back towards the Contractor.

The reporting requirements within Sub-Clause 4.21 are a great motivator for the Contractor to have at its fingertips all the data to allow time to be properly monitored and adjusted to suit deviations from any intended programme. In doing so the Contractor can once again feed into those responsible for preparing the programme data indicating the rate of progress of all concerned allowing the programme to be adjusted to take account of either work being completed earlier than scheduled or likely delays such that resources can be deployed economically and claims, if appropriate will have strong foundations based upon fact.

In a similar fashion the Engineer, by reviewing the available data and early warnings given by the Contract, can foresee areas of work where delays are likely to occur and take appropriate action by alerting the Employer, especially

if the Employer is culpable, but more importantly communicating with the Contractor to mitigate the impacts of delay and issue a Variation if desired and required.

Whilst, with all this data to hand, the Contractor should be able to construct with control and take the appropriate action when and if delay occurs, Contractors should also never underestimate that the data; resourcing levels, duration of work operations etc etc is also with the Engineer who will use this against any Contractor that submits a hasty and ill-prepared claim for what could be a very just entitlement.

There is doubt that in the minds of the FIDIC drafters that all involved intended to fulfil their obligations to the standards required and in a timeous manner but in the event that this did not happen and delay occurred the Engineer and the Contractor would have a wealth of information to hand to prepare claims for just entitlements that could be determined without question under Clause 20, although that Clause is a topic for another day.

Sadly all concerned have frailties either as individuals and/or organisations however this should not prevent at least the firm foundations of good programming from being achieved.

A final thought

Perhaps the FIDIC drafters did attend the same lectures as it is not too difficult to see that with any FIDIC contract there are elements of; Forecasting, Planning, Organisation, Motivation, Coordination, Control and Communication...

This is the fourth in a series of articles being published in **CES**¹ with the post 1999 editions of the FIDIC suite of contracts being the overall subject matter.

The first article discussed the birth of FIDIC's rainbow suite, the second provided a brief insight into continued growth of the rainbow, the third article looked at programming and reporting requirements. In this, the latest article, joint authors **Paul Battrick**² and **Phil Duggan**³ of **Driver**⁴ look at studying project contracts themselves.

manufacturing in Europe had been rejected at site in the Far East.

- It had been rejected as it was constructed using steel and not stainless steel as required by the specification.
- When asked why an alternative material was used the reply was "we always make these vessels from steel".
- The specialist Contractor was forced to make a new vessel constructed out of the specified material resulting in losses and delay damages being levied... a true story.

It is easy to tell all involved with the management of any construction project to read and fully understand the Contract. No matter how experienced we are there is always the potential for an amendment to a previous form, a new revision or an Employer removing some well understood elements that may fundamentally alter any previous understanding.

Please do not adopt the attitude of "I've seen that form before" or "we always do it like this" as one particular client did to its detriment. Whilst not involving a FIDIC Contract the story highlights a totally incorrect attitude to adopt; in short:

- A specialist Contractor asked for assistance, the pressure vessel it had spent 1000s of hours

All this could have been avoided had someone considered the pertinent documentation.

A clause that is within most contracts that is similarly misunderstood relates to Force Majeure. Perceived lists of relevant events are carried from one project to another without considering if the events change; if

the list is exhaustive, since the word "include" is often within the clause or if the events carry monetary entitlements as well as time benefits.

Definitions can vary from contract type to contract type and, in practical terms, from work scope to work scope. Consider for yourselves suitable definitions relative to remeasurable and lump sum contracts and also completion requirements for a road as opposed to a multi phased power plant.

FIDIC conveniently provides definitions firstly in the body of the Contract in respect of topics:

- The Contract
- Parties and Persons
- Dates, Tests, Period and Completion
- Money and Payments
- Works and Goods
- Other Definitions

and also in alphabetical order noting the particular Sub-Clause.

For the purpose of this article one definition is selected, that of Cost. It often has differing meanings under various forms of Contract, especially bespoke forms, and is often translated when claims are being prepared to what those preparing the claim would like it to mean.

In earlier additions of standard forms, including FIDIC forms, whether or not the

Contractor was entitled to add profit to its cost claims remained silent. Now in the FIDIC forms Cost expressly excludes profit but profit is still an entitlement under certain circumstances as will be explained.

FIDIC defines Costs as:

***"Cost"** means all expenditure reasonably incurred or to be incurred), whether on or off the Site, including overhead and similar charges, but does not include profit.*

All those dealing with entitlement (a preferable word to claim) understand that success depends upon the creation and maintenance of the appropriate records and in doing so can fulfil the requirements of FIDIC in both submitting claim documents and adjudicating upon those documents. The definition of Cost provides a starting point in respect of monetary entitlements and clause 20 (Claims, Disputes and Arbitration) provides the end point; in between there are many clauses within FIDIC which give rise to a monetary, and often time, entitlements to the Contractor.

It pays to understand all of these clauses which can be classed as "claims under the Contract" as opposed to "claims under the governing law of the Contract".

Briefly, and in respect of the latter type of claim, FIDIC does not contain an exclusive remedies clause and also appears to foresee such claims, but still governed by clause 20, by the use of the word "otherwise" within the opening paragraph of Sub-Clause 20.1.

Below is a list of the Sub-Clauses which entitle the Contractor to claim additional money (and possibly time) noting when the definition of Cost remains as per the definition or the Contractor is also entitled to a "reasonable profit".

Sub-Clause 1.9 Delayed Drawings or Instructions (Red Book only)

If delay or disruption is caused or likely to be caused as a result of late drawings or instructions the Contractor is entitled to claim:

- Cost plus a reasonable profit
- Extension of time

Sub-Clause 1.9 Errors in the Employer's Requirements (Yellow Book only)

If delay is caused or Cost is incurred as a result of errors in the Employer's Requirements which were not previously discoverable the Contractor is entitled to claim:

- Cost plus a reasonable profit

- Extension of time

Sub-Clause 2.1 Right to Assess to the Site

If delay is caused or Cost incurred as a result of the Employer failing to give the Contractor access to the Site at the prescribed time the Contractor is entitled to claim:

- Cost plus a reasonable profit
- Extension of time

Sub-Clause 4.7 Setting Out

If delay is caused or Cost incurred as a result of errors in the original setting out points and levels of reference notified by the Engineer the Contractor is entitled to claim:

- Cost plus a reasonable profit
- Extension of time

Sub-Clause 4.12 Unforeseeable Physical Conditions

If delay is caused or Cost incurred as a result of the Contractor encountering physical conditions which are Unforeseeable the Contractor is entitled to claim:

- Cost (only)
- Extension of time

It is worth noting that Unforeseeable is a defined term meaning "not reasonably

foreseeable by an experienced contractor by the date for the submission of the Tender”.

Sub-Clause 4.24 Fossils

If delay is caused or Cost incurred as a result of the Contractor’s compliance with instructions issued by the Engineer to deal with the discovery of fossils and the like the Contractor is entitled to claim:

- Cost (only)
- Extension of time

Sub-Clause 7.4 Testing

If delay is caused or Cost incurred as a result of testing being delayed by the Employer or on behalf of the Employer the Contractor is entitled to Claim:

- Cost plus a reasonable profit
- Extension of time

Sub-Clause 8.5 Delays caused by Authorities

If delay or disruption is caused or Cost incurred as a result of the actions or non actions of Authorities the Contractor is entitled to claim:

- Cost, with or without profit, appears not to have been specifically considered
- Extension of time

Sub-Clause 8.9 Consequences of Suspension

If delay is caused or is likely to be caused or Cost incurred as a result of the Engineer’s instructions to suspend work the Contractor is entitled to claim:

- Cost (only)
- Extension of time

Sub-Clause 10.2 – Taking Over of Parts of the Works

If the Contractor incurs Cost as a result of the Employer taking over or using a part of the Works the Contractor is entitled to claim:

- Cost plus a reasonable profit

Sub-Clause 10.3 Interference with Tests on Completion

If delay is caused or Cost incurred as a result of tests being delayed by a reason for which the Employer is responsible the Contractor, amongst other remedies, is entitled to claim:

- Cost plus a reasonable profit
- Extension of time

Sub-Clause 11.8 Contractor to Search

If the Contractor incurs Cost as a result of searching for a defect for which it was not liable the Contractor is entitled to claim:

- Cost plus a reasonable profit

Sub-Clause 12.2 Delayed Tests (Yellow Book only)

If the Contractor incurs Cost as a result of carrying out Tests delayed by the Employer until after Completion the Contractor is entitled to claim:

- Cost plus a reasonable profit

Sub-Clause 12.4 Failure to Pass Tests after Completion (Yellow Book only)

If the Contractor incurs Cost as a result of the Employer delaying access to allow Tests to be carried out the Contractor is entitled to claim:

- Cost plus a reasonable profit

Sub-Clause 13.7 Adjustments for Changes in Legislation

If delay is caused or is likely to be caused or Cost incurred or likely to be incurred as a result of changes in the Laws of the Country the Contractor is entitled to claim:

- Cost (only)
- Extension of time

It is worth noting that Country is a defined term meaning the Country in which the Site (or most of it) is located, where the Permanent Works are to be executed. Thus this definition is very limited in the field of international contracting where Contractors, Suppliers and Sub-Contractors may all have originated from Countries other than where the project is being carried out and may suffer as a result of changes in legislation.

Sub-Clause 16.1 Contractor's Entitlement to Suspend Work

If delay is caused or Cost incurred as a result of the Contractor properly suspending work (or reducing the rate of work) the Contractor is entitled to claim:

- Cost plus a reasonable profit
- Extension of time

Sub-Clause 19.4 Consequences of Force Majeure

If delay is caused or Cost incurred as a result of Force Majeure events the Contractor is entitled to claim:

- Cost (only) in respect of the events listed at Sub-Clauses 19.1 (ii), 19.1 (iii) and 19.1 (iv)
- Extension of time

The above list is not exhaustive as to where the Contractor can gain payments and/or entitlements within the FIDIC contracts; the list refers to Sub-Clauses specifically referring to Cost as defined.

In terms of monetary entitlements, Sub-Clauses not referenced include Evaluation (in respect of the Red Book) and Variations as well as Payment on Termination where an alternative set of rules come into being. The provisions of Sub-Clause 8.4 in respect of extensions of time should be thoroughly considered in respect of entitlements to time extensions.

The subtle differences between the contents of the listed Sub-Clauses are interesting if not explainable. The most interesting of which may be the addition or not of a "reasonable profit" to the Contractor's Cost.

Contractors will argue that they are not charities and all expenditure properly incurred as a result of others deserves / should be required to return a profit. Similarly many of the claim events, had the scope been fully understood at the time of tender by both parties, would have been included within the Contractor's bid and the Contractor would have had the opportunity to add profit to its foreseen costs.

Contractors and their advisers may wish to seek an adjustment to the definition of Cost when negotiating the Contract in the future.

The influence of whether or not a Cost attracts profit may also extend to the preparation of claims for extensions of time. Whilst many will say that at all times the causes of delay should be capable of being clearly identified, this is often not the case. There is also the propensity for Contractors to establish claims around events that appear to have the best chance of success or line of least resistance from the Engineer; perhaps even a global style

claim is submitted to gain relief from the deduction of Liquidated Damages.

In any event at some juncture the Contractor and the Engineer, or perhaps a DAB or Arbitral Tribunal, have to consider the causes of delay, establish periods of extension of time against those causes and lastly establish if there are any monetary entitlements to accompany those periods of delay.

The addition, or not as the case may, be of profit to a Contractor's elements of a prolongation claim maybe considerable amount in these days where mega projects exist and delays run into years not just days or weeks. Contractors therefore may select, if possible, delay events that could maximise their potential financial returns.

In respect of the Contractor declaring its required profit, it is suggested that instead of waiting until such time as a claim exists and the Employer and its Engineer/Representative may be seeking to limit expenditure against claims, the parties follow the lead given by FIDIC within the MDB Harmonised Edition (the Pink Book).

The Pink Book at Sub-Clause 1.2 differs from the Red Book by the addition of two paragraphs, in this context the important one being:

"In these Conditions, provisions including the expression "Cost plus profit" require this profit to be one-twentieth (5%) of this Cost unless otherwise indicated in the Contract Data."

It will therefore be up to the Contractor to consider that he may wish to declare a higher profit than 5% at the pre-contract stage or accept that 5% profit where applicable on its entitlements listed with the Contract. It may be that the

Contractor's actual bid margin was less than 5% and so it would gladly accept that on offer.

A further interesting subtlety is the use or not of the phrase is "likely to cause". It may have been more prudent upon the part of the FIDIC drafters, when considering the Employer's interests to use this phrase within all entitlement clauses so as to be consistent with the early warning obligations upon the Contractor in terms of time within Sub-Clause 4.21 and the general notice provisions of Sub-Clause 20.1. This may also aid the early conclusion of claim issues.

Contractors, when drafting sub-contracts should take note of the differing provisions within the entitlement clauses such that the variants, especially in respect of the recovery of profit, are incorporated into Sub-Contracts so as not to cause a shortfall in recovery or lengthy discussions concerning the right or otherwise to profit in respect of claim monies. Although, in practice it appears that Engineers only deny profit on the Contractor's element of a claim.

It is noted that Sub-Clause 11.8 Contractor to Search, does not give a specific entitlement to a time extension albeit circumstances can be imagined where a delay to completion may occur. Under these circumstances the Contractor has two further options to obtain any entitlement within Sub-Clause 8.4 Extension of Time for Completion:

- Sub-Clause 8.4(b), where an extension of time may be claimed as a result of any cause under a Sub-Clause of the Contract.
- Sub-Clause 8.4(e), where an extension of time may be claimed as a result of any delay impediment or prevention caused by or attributable to the Employer, the

Employer's Personnel or the Employer's other contractors on the Site.

FIDIC having been thorough in respect of the Contractor's claims towards the Employer have not carried through this thoroughness in respect of claims from the Employer to the Contractor.

There is no definition of cost relative to the Employer's claims towards the Contractor and therefore it must be left to the Employer's agent or the Engineer, to determine if profit should be passed on as a legitimate claim item.

Finally, a brief reference was made above to claims made under the governing law as opposed to under the Contract. This is obviously an option open to the Contractor however, it is considered that claims properly made under the Contract will have a greater chance of speedy resolution. It may also be quite a time consuming exercise for a Contractor to take the necessary legal advice before commencing a claim under the governing law. Should this be the case the initial and fatal notice provisions of Sub-Clause 20.1 may come into play – a topic for another article.

This is the fifth in a series of articles being published in **CES**¹.

Following an introduction to FIDIC and its 1999 suite of contracts the joint authors, **Paul Battrick**² and **Phil Duggan**³ of **Driver**⁴ will discuss many practical issues of using FIDIC contracts. Their thoughts and opinions are based upon actual working experiences of working with many FIDIC contracts both past and present.

Risk and Responsibility Clause 17 and beyond

If the phrase risk and responsibility is mentioned in respect of the FIDIC suite of contracts many, possibly new to the FIDIC forms, would consider clause 17 and possibly 18 and 19, of the major forms and close out their thought processes.

This article reflects upon the allocation of risk and responsibilities within the major forms introduced in 1999 (the Red, Yellow and Silver Books) beyond the words contained within clause 17; but first a consideration of clause 17 as contained within the Red, Yellow and Silver Books.

Clause 17 – Risk and Responsibility

This clause is typical of clauses that allocate risk and responsibility to events

that are generally, but not always, insurable events; the likeness to clause 18 Insurance can be readily viewed. The wording within the three major forms is considered to be clear and not in need of great explanation saves for the overview below.

Sub-clause 17.1 provides for the indemnities that the Employer and the Contractor must provide to each other in case injury to people and/or property occurs as a result of the actions of personnel or other for which they are responsible during the “design, execution and completion of the Works”. Property excludes the Works itself which is dealt with separately at Sub-clause 17.2.

Generally unless specifically allocated to the Employer and those defined as being under its responsibility, events are the risk and responsibility of the Contractor.

Sub-clause 17.2 provides for the Contractor’s care of the Works, for which it is fully responsible until such time as the Taking-Over Certificate (or Taking-Over Certificates in the case of sectional

completion) is issued or deemed to be issued in accordance with Sub-clause 10.1, save for those items listed within Sub-clause 17.3 which are Employer's Risks.

Whilst this Sub-clause specifically deals with the care of the Works until a Taking-Over Certificate has been issued it does not mention suspension by either the Contractor or the Employer possibly leading to termination. It is suggested that the obligations of the Contractor to care for the Works remain throughout a suspension, irrespective of responsibility for the events leading to the suspension, until such time as work recommences and a Taking-Over Certificate is issued or Termination takes place and the Contractor is released from its obligations in this respect.

This may be considered somewhat unjust if the Contractor has not been paid, the Employer cannot demonstrate that it has the arrangements in place to pay and the suspension leading to termination is lengthy thus resulting in a high cost burden for say the protection of the Works including materials stored on and off site. The Contractor that relies upon the argument that it was not the cause of the suspension and consequent termination and therefore had no responsibility to care for the Works - may find itself unable to justify its claims for the work completed or partially completed and materials handed

over to the Employer should termination take place.

Sub-clause 17.3 is entitled Employer's Risks which, in other words, are the risks that the Contractor has no control over.

The Red and Yellow Books have identical lists and it is suggested that these are cross referenced with the list of typical events that may be classed as a Force Majeure within clause 19. It is also suggested that the defined term Unforeseeable within Sub-clause 17.3(h) is fully understood as so many have difficulties in separating what is unforeseen from what is unforeseeable when making claims.

The FIDIC guide confirms the definition of unforeseeable to be "not reasonably foreseeable by an experienced contractor by the date for submission of the Tender". It goes on to suggest that the frequency of natural events relative to the duration of the Time for Completion may provide guidance as to what should be considered as unforeseeable. Taking this suggestion perhaps a five minute discussion and survey with your colleagues could take place noting the following:

- Two projects adjacent to each other; same Contractor, Engineer and Employer.

- Duration of project A is eight years and project B is two years with identical commencement dates.
- Statistically the natural event occurs every ten years.
- The last event happened nine years ago and occurred one year after commencement of the projects.

Which event falls within the definition of unforeseeable?

The Silver Book has a shortened list losing the following:

- Use or occupation by the Employer of any part of the Permanent Works, except as may be specified in the Contract - should this occur it would be a breach by Employer of Sub-clause 10.2 and therefore not a risk.
- Design of any part of the Works by the Employer's Personnel or by others for which the Employer is responsible - the Silver Book foresees the Contractor being responsible for the total design of the Works, however this may be compromised by Sub-clause 5.1 where the Employer retains some responsibilities for information that can affect design carried out by the Contractor.
- Any operation of the forces of nature which is Unforeseeable -

unless such events can be justified as being a Force Majeure such events are deemed to be at the risk of the Contractor.

Sub-clause 17.4 allows the Contractor to put forward its claims in respect of time and money in the event that the Employer's Risks noted within Sub-clause 17.3 result in loss or damage to the Works, Goods or Contractor's Documents.

As with all other claims submitted by the Contractor in respect of a perceived entitlement either under the Contract or by law, the procedure within Sub-clause 20.1 must apply or the Contractor risks losing any entitlement. The Engineer (or the Employer in the case of the Silver Book) must then proceed in accordance with Sub-clauses 20.1 and 3.5 to determine any entitlement. In terms of any monetary entitlement the Contractor is entitled to Cost or Cost plus a reasonable profit as detailed.

Sub-clause 17.5 considers intellectual and industrial property rights and provides protection to both the Contractor and the Employer from claims issued by third parties related to patents, registered designs, copyright and the like where the intellectual or industrial property rights have been allegedly infringed by either party. Whilst it is suggested that the claims procedure of Sub-clause 20.1 applies to claims made under this clause

(line two stating “under any clause..”) the FIDIC drafters have seen fit to repeat, albeit in slightly different terms, the fatal nature of a 28 day notice period should either party wish to submit a claim.

Sub-clause 17.6 deals with the limits of certain liabilities under the Contract. However, it is perhaps the most important clause that must be considered in the light of the provision of the governing law prescribed within the Contract. Various jurisdictions, either common law or civil law jurisdictions may affect matters concerning the length of any period in respect of defects liability, the commencement date for such liabilities can even negate the clause in its entirety in respect of the limit of financial liability in the event that gross negligence can be established to have taken place. This latter point being reflected within the FIDIC forms which confirms that there is no limit of liability “in any case of fraud, deliberate default or reckless misconduct by the defaulting Party”. This statement being particularly relevant during the bid phase and it is likely that the limit of liability to be stated within the Particular Conditions will be the subject of intense negotiations between the Employer and Contractor prior to the award of the Contract. If no sum is agreed and stated the Accepted Contract Amount will be the limit.

The Sub-clause is intended to limit the Contractor’s liability towards the Employer

relative to the Contractor’s failed performance in respect of progress resulting in delay damages and, in respect of the Yellow and Silver Books, inadequate design, workmanship and the failure of materials etc., resulting in non-performance damages and non-availability damages if noted within the Particular Conditions. It also excludes any liability, by either party, in respect of loss of use of any Works, loss of profit, loss of any Contract or for any indirect or consequential loss or damage other than in respect of a termination or indemnities as per Sub-clause 17.1.

There is no limit of liability upon the liability of the Employer towards the Contractor and any limitations by the Contractor towards the Employer excludes the supply of utilities (Sub-clause 4.19), Employer’s equipment and free issue material whilst in the care of the Contractor (Sub-clause 4.20), indemnities (Sub-Clause 17.1) and intellectual and industrial property rights (Sub-clause 17.4).

Risk and Responsibilities – elsewhere

The opening paragraph of this article suggested that many people, possibly new to the FIDIC forms, will limit their thoughts in respect of risks and responsibilities to clause 17 and possibly clauses 18 and 19. Those to whom that statement may apply are invited to consider that the contract,

whether Red, Yellow or Silver Book, is in its entirety a fine balance of risks and responsibilities allocated between the Employer (and its Engineer or Representative) and the Contractor.

Whilst opinions may differ as to the fairness, and validity in law, of conditions such as the fatal 28 day notice with Sub-clause 20.1, the FIDIC drafters will have considered such a period in the light of other obligations placed upon the Contractor within the Contract; such as the required monitoring of the programme and related matters (as discussed in the third article of this series).

A viewpoint being that any Contractor who is not aware within 28 days that an event, for which the Employer is culpable, has a time or money impact does not deserve to receive any entitlement!

The FIDIC suite of contracts, as with any other contract, can be considered to be no more than a rule book detailing the potential consequences should a defined event take place.

If in a game of soccer someone is caught handling the ball the referee will give a free kick or penalty to the other side. If at the outset of a contract it is considered that all of the risks and responsibilities are allocated and the key elements of scope, time and price are defined then any event that may affect those key elements will

cause the applicable rules to be consulted to establish which party is carrying the risk of that event.

The FIDIC drafters have taken great care when dealing with the allocation risk such that internationally and less likely nationally Employers and Contractors can establish working relationships for the first and perhaps the only time based upon a considered set of rules.

Those rules provide some certainty at the outset to both parties and, if triggered and operated well, can restore certainty in respect of the various risks and allocation of those risks following any necessary adjustments to all or any of the key factors of scope, time and price.

The most obvious differences in risk allocation between Red, Yellow and Silver Books is in respect of design responsibility and the consequent risks of time and money impacts should design and therefore scope be amended at some point in time after the contract award.

Design can be translated to mean choice; those with design responsibility have the ability to choose, affect the scope and potentially the time required to complete the project and the price for the project.

Accordingly, and in overall terms, the risks associated with design responsibility under the Red Book rests with the Employer,

whilst the Contractor carries the risks under the Yellow and Silver Books. In all contracts for the Contractor to gain any entitlement it has to comply with at least the provisions of Sub-clause 20.1 in respect of the issue of notices and the subsequent provision of a detailed claim. The risk of failing to establish contractual relationships with Sub-Contractors and others to allow compliance with these periods rests with the Contractor. In this respect the periods stated within Sub-clause 20.1 may be considered short or the minimum required to gain adequate data and input from others.

There are many areas that are common to the Red, Yellow and Silver Books that provide protection and therefore less risk to the Contractor.

In the context of perhaps the Contractor making a bid to perhaps a special purpose vehicle it is important to know that that entity cannot change overnight once the Contract Agreement has been signed. At Sub-clause 1.7 Assignment it is stated that neither party shall assign the Contract or any part of the Contract without the prior agreement of the other Party; accordingly the Contractor (perhaps with the most to lose) is protected from the Employer being changed to some party it would never have contemplated to be its contracting partner.

The Contractor's cash flow may be protected to some degree by the provision

of an advance payment linked to an Advance Payment Guarantee. However, regular and timely payments to the Contractor remain its lifeblood; should the Engineer fail to certify a payment (if appropriate) and/or the Employer fail to make payments at the prescribed time as per Sub-clause 14.7 the Contractor can either reduce the rate of work or suspend work provided not less than 21 days notice has been given. This being in accordance with Sub-clause 16.1. Should the situation not change within the timescales prescribed within Sub-clause 16.2 the Contractor can terminate the Contract.

The option of suspension or reducing the rate of progress followed by termination also applies if the Employer cannot provide "reasonable evidence that financial arrangements have been made and are being maintained which will enable the Employer to pay the Contract Price (as estimated at the time)..." as stated with Sub-clause 2.4. It is not confirmed whose estimated Contract Price should be used as a reference point; the views of the Contractor and the Employer may differ greatly in this respect especially if the Contractor has the tendency to inflate its claims to unrealistic values. Nevertheless the FIDIC drafters have made provisions to reduce the risk of a Contractor suffering from an uncertain payment regime.

For the purpose of this article there is one more major factor to be considered in

terms of risk allocation; that being the ability of the Contractor to achieve completion. It is not uncommon for Employers to take occupation of a project and subsequently receive income but find reasons not to accept that the Contractor has achieved completion as defined. Accordingly the Employer gains income and is possibly continuing to deduct delay damages whilst the Contractor cannot obtain any of the financial benefits of attaining completion, the responsibility for maintenance, wear and tear and the like remain with the Contractor whilst any defects liability period cannot commence.

The FIDIC drafters have considered such circumstances and provided, within Sub-clause 10.1, the ability for the Contractor to attain Completion. Sub-clause 10.1, states in general terms, that when the Contractor has completed the Works (or Sections) in accordance with the Contract such that no minor outstanding work or defects prevent the use of the Works for what they were intended, the Contractor may apply by notice to the Employer for a Taking-Over Certificate. The Engineer (or Employer as appropriate) will respond within 28 days either by issuing the Taking-Over Certificate or confirming why no certificate can be issued. The latter providing the criteria for the Contractor to fulfil prior to issuing a further notice for a Taking-Over Certificate.

Should the Engineer (or Employer as appropriate) fail to either issue the Taking-Over Certificate or give reasons for not issuing the Certificate within the period of 28 days, the Taking-Over Certificate shall be deemed to have been issued on the twenty – eighth day.

Sub-clause 10.2 in all forms provides further support for the Contractor by confirming that the Employer shall not use any part of the Works prior to Completion.

Sub-clause 10.3 within the Red and Yellow Books gives further protection to the Contractor. In the event that the Contractor is prevented from carrying out any tests necessary to attain Completion by a cause for which the Employer is responsible for a period of 14 days the Employer will be deemed to have taken over the Works and the Engineer must issue a Taking-Over Certificate; the relevant date being that on which the tests would have been completed.

The defined timescales of every phase of the dispute resolution procedure within Clause 20 seek to offer the Contractor some certainty and lessen risk in the event that a DAB and Arbitration are necessary, but they are the subject of a different article as is the abuses to the allocation of risk and responsibility so carefully considered by the FIDIC drafters.

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Following an introduction to FIDIC and its 1999 suite of contracts the joint authors, **Paul Battrick**² and **Phil Duggan**³ of **Driver**⁴ will discuss many practical issues of using FIDIC contracts. Their thoughts and opinions are based upon actual working experiences of working with many FIDIC contracts both past and present.

A Risk too far for the EPC Contractor

This article considers the step change in respect of the allocation of risks between the Yellow and Silver books of the FIDIC 1999 suite of Contracts and poses the question for a traditional EPC contract are those risks a step too far.

Traditionally

International contracting possess a vast number of contractors that use the term EPC contractor to describe how they operate and what services they can provide to their potential Employers; in simple terms they Engineer or design the works, Procure all that is necessary to complete the works and finally Construct the works. This regime is very similar to that utilised by a Design and Build contractor and is applied across the industry, typically in sectors have some form of black box

technology or proprietary technology. Accordingly, process plants of all descriptions and power plants are often constructed by and EPC contractor with the Employer proffering a bespoke form of contract. The Employers relative to process and power plants are likely to be "professional" Employers in that they will construct a number of facilities, probably have their own in-house as well as external design engineers and will understand completely what they expect from the finished project in terms of quality of components and production output whether that be power, fertiliser or whatever. The quality and maybe consistent choice of components being relevant to future operation and maintenance considerations such as costings and the length of non-productive shutdown periods.

It is also not uncommon on mega-projects for the Employer to commission Front End Engineering Design or FEED whereby the conceptual design is completed such that the traditional EPC contractor can complete the detailed design probably with the Employer's engineer retained throughout the process.

The use of turnkey contracting has been more associated with either the Employer who wishes to have no part in the construction process but wishes to have delivered a fully operating facility, such as a hospital with all surgical equipment, bedding and the like provided and installed by the Contractor such that the hospital can function within the shortest possible time after hand over. Alternatively this form of procurement has been used by the “non-professional” Employer that may only ever require one new facility or so few new facilities that it will have no internal resident design functions or no ongoing relationship with external design consultants. The Contractor that delivers a functioning facility to the Employer’s requirements via a turnkey contract is ideally suited to this type of Employer.

New Trends

Contractors have to react to the marketplace to gain workload; similarly FIDIC has reacted to a requirement in the marketplace to produce the Silver Book and provides more certainty of cost and time and is perfectly suited to the “non-professional” Employer who may be far more risk averse, through a lack of familiarity of the construction process or the requirements of its funders, than the “professional” Employer.

With the rise of Special Purpose Vehicles (SPVs) relative to the renewable energy sector there is a growing demand for projects to be administered under the

Silver Book. It is perfectly suited; the Employer is likely to be a “non professional” Employer, possibly a SPV that will only construct one bio-mass power plant or whatever; the funders backing the project will most likely demand certainty in respect of cost and also the time for completion (the latter to judge when the income stream will commence and profits be generated), the Employer may rely entirely on the Contractor for all design issues knowing only that it has a sustainable, deliverable and, in respect of say a bio-mass power plant, a consistent fuel source.

Taking a bio-mass power plant as a typical example and noting that the traditional EPC contractor may be reacting to the market place by developing its technology to accommodate the various fuel sources there will most likely be the situation where the traditional EPC faces a Silver Book for the very first time.

Noting that the front cover used the phrase EPC/Turnkey Projects the Contractor may have some pre-conceived ideas regarding the term EPC which may be more aligned to the Yellow Book.

The Yellow Book and the Silver Book – a brief comparison

The notes below are in the context of highlighting the obligations and risks a traditional EPC contractor would face when working under a Silver Book compared to working under a Yellow Book.

It is worth recapping some of the selection criteria that should be considered by an Employer (and its advisors) when deciding which form of contract is to be used together with the fundamental differences between the Yellow Book and Silver Book.

Yellow Book

- Contract administered by and Engineer.
- Risks are allocated on a fair and equitable basis.
- Tender time is short (or is insufficient to allow adequate time for the Contractor to assess the risks it is obliged to carry out under the Silver Book) and details of matters such as hydrological, sub-surface and other matters affecting the site are not readily available; risks therefore remain with the Employer.
- The Employer seeks a lower tender price but accepts certain risks during the duration of the project.
- The Employer via its Engineer requires a close relationship with the Contractor throughout the duration of the project including the more likely potential to cause change to design.
- It is not possible for the tenderers to properly inspect the site or the amount of underground work is so

significant or complex that for the Contractor to price all risks under the Silver Book would be both inequitable and cost prohibitive (or a recipe for disaster...).

Silver Book

- Contract administered by the Employer (possibly an Employer's Representative).
- Disproportionately more risks are allocated to the Contractor. As a consequence the Contractor should require more detailed data regarding hydrological, sub-surface and other conditions affecting the site to assess risks; more detailed and precise knowledge of the Employer's Requirements.
- In order for the Contractor to properly assess the risks it is obliged to carry and to provide the Employer a high degree of cost and time certainty there should be a longer period for preparation of a tender and more discussion with the Employer during that time.
- The Employer accepts a higher tender price in the knowledge that it has fewer risks during the duration of the project.

- The Employer has no great desire to be involved on a daily basis with the project and is content to allow the Contractor to take full responsibility for the design and construction of the project (although the reporting procedures within both the Yellow Book and Silver Book at Sub-Clause 4.21 remain identical – perhaps for claims adjudication purposes as discussed in a previous article).

From the above and previous articles it is clear that the most significant differences between the Yellow Book and the Silver Book relate to the transfer of risk from the Employer to the Contractor. The FICIC drafters use both wholesale amendments to Sub-clauses and subtle amendments to phraseology to achieve their goals as discussed below in the order the Sub-Clauses appear in the Contracts.

Sub-Clause 1.9 Errors in the Employer's Requirement – Yellow Book only

Within the Yellow Book if the error causing the Contractor to suffer delay or incur Cost could not have been discovered by an experienced contractor exercising due care when scrutinising the Employer's Requirements then, provided the Contractor fulfils the requirements of Sub-Clause 20.1, it may receive an extension of time and Cost plus reasonable profit that it is entitled to receive.

There is no corresponding Sub-Clause within the Silver Book as the Contractor takes responsibility for the accuracy of the Employer's Requirements as will be discussed below.

Sub-Clause 4.7 Setting Out – Yellow Book and Silver Book

Both Books require the Contractor to be responsible for the setting out of all parts of the Works based upon the information provided within the Contract and as subsequently provided by the Engineer (Yellow Book).

The fundamental difference being that within the Silver Book the Contractor also takes responsibility for the accuracy of the setting out data within the Contract (meaning the Employer's Requirements). To carry out the necessary review during the tender period in order to properly judge the severity of this risk is one of the reasons why a longer tender period is required relative to projects being let under a Silver Book.

The Yellow Book, since the Employer is responsible for the accuracy of the setting out data, allows that data either to be noted within the Contract or issued by the Engineer during the course of the project.

If the Contractor suffers delay or incurs Cost as a result of any error and provided the Contractor, as an experienced contractor, could not have reasonably discovered or avoid the delay or Cost then the claims procedure of Sub-Clause 20.1 is

applied and the Engineer determines the Contractor's entitlements in respect of extensions of time and Cost plus reasonable profit.

Sub-Clause 4.10 Site Data – Yellow Book and Silver Book

Sub-Clause 4.10 reaffirms the ethos set out within Sub-Clause 4.7 noting, within the Yellow Book, that the Contractor is responsible for interpreting such data whereas the Silver Book takes the same statement a step further noting that "the Employer shall have no responsibility for the accuracy, sufficiency or completeness of such data, except as stated in Sub-Clause 5.1".

Sub-Clause 4.12 Unforeseeable Physical Conditions – Yellow Book

Sub-Clause 4.12 Unforeseeable Difficulties – Silver Book

It is worth noting that the term "Unforeseeable" is defined within the Yellow Book, at Sub-Clause 1.1.6.8, to mean "not reasonably foreseeable by an experienced contractor by the date for submission of the Tender".

The definition is missing from the Silver Book which also changes the Sub-Clause title to be much broader than Unforeseeable Physical Conditions to Unforeseeable Difficulties.

Under the Silver Book the intent is clear; the Contractor is deemed to have obtained all necessary information to assess all

risks, considered all such information and accepts total responsibility for having foreseen all difficulties and has allowed, within its Tender, sufficient time and funds to carry out the Works. Sub-Clause 4.12(c) stating "the Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs".

The only possibility for the Contractor to perhaps recover Cost (under certain circumstances) or gain an extension of time is if the event is of such magnitude that it can be considered to fall within the definition of a Force Majeure (Clause 19).

Sub-Clause 5.1 Design – Yellow Book and Silver Book

The regime, in simple terms, is that the Contractor is responsible for designing the Works to meet the needs of the Employer as stated within the Employer's Requirements. Should the Contractor, after scrutinising those requirements, find errors, those errors can be accepted and remedied by the Engineer in the form of a Variation. The Contractor would then apply the appropriate procedures within Clauses 13 and 20 to gain its entitlements in terms of time and/or money.

The fundamental difference within the Silver Book is that the Contractor takes responsibility for the Employer's Requirements including design criteria and calculations with only certain exceptions for which the Employer is responsible those being:

- a) "portions, data and information which are stated in the Contract as being immutable or the responsibility of the Employer,
- b) definitions of intended purposes of the Works or any parts thereof,
- c) Criteria for the testing and performance of the completed Works, and
- d) portions, data and information which cannot be verified by the Contractor, except as otherwise stated in the Contract".

Accordingly the Contractor is responsible for the incompleteness, any error, any inaccuracy or omission of any kind in the Employer's Requirements as included in the Contract (except the reasons noted above) in addition to its responsibility for the design of the Works.

Whilst not perhaps relevant to this Sub-Clause it is worth noting that the Priority of Documents (Sub-Clause 1.5) ranks the Employer's Requirements above the Contractor's Tender.

Once again Employer's must give Contractors the time to allow a full investigation and study of the Employer's Requirements at the time of tender, not to do so will or should only lead to bills being

inflated (for good reasons) to cover the risks that the Employer wishes to pass on.

Conclusions

Employer's who choose to employ the Silver Book should do so after careful consideration and careful selection of Contractor's to submit bids.

The Employer should respect the considerable amount of work that is necessary for a Contractor to properly price the risks it is obliged to take on board and limit the numbers tendering to the minimum to obtain competitive bids.

Employers must realise that the price they will pay for risk avoidance will be high potentially higher than the overall cost of the same project constructed under a Yellow Book.

Contractor's familiar in carrying out works under EPC Contracts, often bespoke in nature, must understand the differences contained within the Silver Book and educate their sales departments to raise a red flag when an Employer proffers a contract under a Silver Book.

Above all both Parties should know the Contract, recognise and manage the risks to avoid disputes!

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The Gold Standard

This article considers elements of the FIDIC Gold Book relative to the submission of claims, predominately by the Contractor but also by the Employer, and compares the procedures with those contained within the Red, Yellow and Silver Books.

It has been suggested that since the Gold Book was issued some nine years later than the various books issued in 1999 that its provisions represents current day thinking within the minds of the FIDIC drafters and may be the blueprint for revisions to the First Editions to the 1999 books.

The Gold Book – a brief recap

It should be recalled from a previous article that the Gold Book is to be used in a “green field” situation where the Employer

wishes to employ a single Contractor to design, build and subsequently operate the completed construction project for a period of 20 years.

Whilst the Gold Book has been likened to a Yellow Book (the design and build form) with an added operate and maintenance contract blended within, it contains many differences to the Yellow Book in addition to the obvious entirely new provisions which deal with the suggested period of twenty years for operation and maintenance.

It has been suggested, in some quarters, that the form should actually have been a Yellow Book with an optional annex containing the operation and maintenance provisions. This would have provided familiarity to all parties working with the contract but FIDIC would have lost the opportunity to showcase (and receive industry feedback on) its potential revisions to the Yellow and other books within its family of contracts.

The most relevant provision to have in mind when considering this article is that the DAB for the construction period is of the standing variety comprising of three

members and that it is obliged to visit the Site at intervals of not more than 140 days. The provision of a standing DAB no doubt fuelling the debate as to whether such a DAB aids dispute avoidance by the regular visits and discussing at Site an agenda prepared with the input of itself and the Employer and the Contractor or not.

The Gold Book – Clause 20 provisions

When comparing the provisions of Clause 20 within the Gold Book with the Yellow and other major forms issued in 1999 the most obvious change is the physical layout.

Sub-Clause 20.1 (Contractor's Claims) has a completely new format; the use of referenced sub-paragraphs makes the clause much easier to consider than the alternative style of a series of paragraphs under the Sub-Clause heading.

Sub-Clause 20.2 (Employer's Claims) is a new clause in this location in that within the other books, Employer's Claims are dealt with as Sub-Clause 2.5. Even though the location has changed the overriding principles have not. Whilst the Contractor in all FIDIC forms has strict provisions to follow with the claims procedure, the Employer can submit its Notice to the Contractor "as soon as practicable" after the Employer becomes aware or should have become aware of the relevant event. The particulars of the claimed amount has neither to be submitted within any stated timetable nor to any given standard.

In terms of purely layout there is the introduction of new clauses relevant to Avoidance of Disputes (Sub-Clause 20.5) and Disputes Arising during the Operation Service Period (Sub-Clause 20.10); the former being relevant to the standing nature of the DAB and the latter relating to post issue of the Commissioning Certificate effectively ending the consortium phase of the project.

It is however the provisions of Sub-Clause 20.1 (Contractor's Claims) that have and, if they form the basis for future editions of other books, will be the cause of significant debate for many a while to come.

Whilst not wishing to detract from a future detailed review of the current provisions of Sub-Clause 20.1 within the major books issued in 1999 the provisions are in essence:

- The Contractor has to submit its Notice of a claim for time and/or money within the stated period; failure to do so blocks the Contractor from pursuing its claim any further.
- The Contractor has to submit its fully detailed claim within the stated period, failure to do so may be taken into account to which the failure has prevented or prejudiced the proper investigation leading to the determination of the claim.
- Depending upon which book is being considered, the Engineer or Employer's Representative has a

stated period to consider the Contractor's fully detailed claim and respond with approval or disapproval together with detailed comments.

- A determination in accordance with Sub-Clause 3.5 to confirm the approval of the Contractor's claim noting the extension of the Time for Completion and/or any additional payment which the Contractor is entitled.

Within the Gold Book, at Sub-Clause 20.1(a), the initial Notice that has to be provided by the Contractor has to be submitted within 28 days after the Contractor became aware, or should have become aware, of the event that, in the Contractor's opinion has led to a situation where it is entitled to an extension of the Time for Completion and/or additional payment.

Failure by the Contractor to issue this Notice renders the claim time barred; in the simplest of terms the Contractor loses its right to make a claim.

There are those within the industry, notably within the Contracting fraternity, that consider this fatal notice clause to be totally unfair and unduly harsh and a diversion to the smooth running of the project and relationships between the contracting parties since such a clause promotes a Notice being submitted at the merest hint of a potential claim. It is true

that Contractor's are required to issue such protective Notices.

It is also stated that in some jurisdictions such a fatal Notice clause may be contrary to the intent of the relevant Law. Such a statement reinforces the necessity to consult a lawyer totally familiar with the Law governing the Contract before entering into any Contract. In principle the enforceability of a fatal notice clause has had support with some courts since it contradicted the prevention principle; as noted above when matters stray into the influence and interpretation of law a lawyer should be consulted to obtain the most relevant advice to the situation being encountered.

The FIDIC drafters, within the Gold Book, have perhaps had half an ear leaning towards those who consider that fatal notices are unjust since they have introduced a potential opportunity for the Contractor to be able to proceed with its claims despite not having submitted a Notice within the required time period.

The solution being a referral to the DAB should the Contractor consider that there were circumstances to justify the late submission of the Notice. The DAB has the authority to override the 28 day time limit if it considers it fair and reasonable to do so.

In this respect it should be remembered that, under the Gold Book, the DAB is of the standing variety and accordingly it will

have had the benefit of regular site visits, possible discussions with the Parties and the Employer's Representative concerning the event and potentially an early sight of relevant documentation such that a swift decision can be made one way or the other.

It remains to be seen whether or not a standing DAB will actually encourage disputes of this (or any) nature. Some of those who consider that the fatal Notice provisions are unjust would avoid this second bite of the cherry as not being the solution, stating that the most equitable way forward is to remove the fatal nature of the Notice and replace it with sanctions against the Contractor should late submission prejudice the Employer. The FIDIC drafters have compromised, to an extent, but firmly believe that the professional Contractor should be aware of the impacts of any event within 28 days. The debate will no doubt continue.

Following submission of the Notice the Contractor must keep, at site unless otherwise agreed, such contemporaneous records as may be necessary to substantiate its claim as required by Sub-Clause 20.1(b). It is suggested that the professional Contractor will have the majority of such records in place in any event and may only need to focus those records upon the relevant event. The Employer's Representation may also instruct the Contractor to keep specific records and monitor those being kept by

the Contractor; these actions do not count as an admission of liability. Clearly at this juncture there should be dialogue between the Contractor and the Employer's Representative and it is suggested that the Contractor, since it wants or needs something, takes a pro-active stance and actually asks if the records being maintained are adequate such that a determination can be made or is there any other type of record that would assist the determination to be made in accordance with Sub-Clause 3.5. Such an action may aid the swift resolution of the quantum of a Contractor's claim should there be an entitlement.

The Gold Book goes on within Sub-Clause 20.1(c) where it again differs from the major books issued in 1999. Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to a claim for an entitlement the Contractor must send to the Employer's Representative a fully detailed claim which includes all supporting particulars of the contractual basis for the claim plus any delay analysis or quantum evidence as appropriate.

There are relaxations to the 42 days if allowed by the DAB pursuant to an extension of the original 28 day Notice or if agreed between the Contractor and the Employer Representative who may also ask for further supporting particulars.

Accordingly a Contractor may have as little as 14 days (42-28) after it became aware

of an event to submit its fully particularised claim. If the event continues the first fully detailed claim must still be submitted within the stated period but it will be considered as an interim claim. The Contractor must submit further claims at 28 day intervals until such time as the event has finished giving rise to a claim.

A further new concept is also introduced by the FIDIC drafters at this point in the timeline in respect of claims submission and determination. If the Contractor fails to submit a fully particularised claim that establishes the contractual or other basis of the claim within the 42 day limit (or extended limit) then the original 28 day Notice as per Sub-Clause 20.1(a) shall be deemed to have lapsed, and the claim will not be accepted or considered since the Notice will no longer be considered valid. As with the original Notice, the Contractor can apply to the DAB if it considers there are circumstances which warrant an extension to the 42 day period and the Employer's Representative has rejected the Contractor's request for the said period to be extended.

Within the FIDIC guide to the Gold Book it is recognised that the provision of "a fully detailed claim which includes fully supporting particulars of the contractual or other basis of the claim and of the extension of time and/or additional payment claimed" within a 42 day period "is a far-reaching requirement" and "it is therefore not sufficient to simply make a

brief reference to the Clause under which the claim is being made".

No matter how professional a Contractor maybe it may often prove difficult to gather all relevant information within the 42 day period, especially if the Contractor has to rely upon a chain of third parties, such as Sub-Contractors and their suppliers, to provide basic information and potentially involve lawyers to advise upon the contractual or other basis of the claim.

The debate regarding the fundamental right of a Contractor to make a claim being negated by a time bar clause will no doubt again rise and this second time bar may also give rise to an element of subjectivity, since the Employer's Representative appears to have the power to decide if the Contractor has established its contractual basis of the claim in deciding whether or not the original notice has lapsed.

It is hoped that FIDIC intend the deemed lapse of the original notice only to apply to the Contractor establishing its contractual or other basis of its claim and not, having established such a basis, to the value of the supporting documentation to establish the quantum of the claim in terms of time and/or money.

The late submission of details being met with the same sanction as within the 1999 major books.

In this respect however the writer has viewed an amendment to the standard form that adds the phrase "to the

satisfaction of the Employer's Representative in respect of the contractual or other basis and particulars of claim" within the Sub-Clause to abuse the apparent power of the Employer's Representative.

Sub-Clause 20.1(a) details the time period that the Employer's Representative has to respond to the Contractor's claim both establishing the contractual or other basis and particularising the claim. There is a mandatory 42 day period for the Employer's Representative to respond to the contractual or other basis of the claim however, by requesting further particulars it is suggested that the same 42 day period for replying to the quantum of the claim may be extended. In giving its decisions the Employer's Representative must use the provisions of Sub-Clause 3.5 (Determinations).

However, if the Employer's Representative fails to adhere to the timetable and fails to respond to at least whether or not the Contractor has established a contractual or other basis of its claim either the Contractor or the Employer may consider the claim has been rejected by the Employer's Representative.

Whilst the Gold Book allows either Party to refer the matter to the DAB it is more likely to be the Contractor after its claim has

been rejected on the basis of the Employer's Representative failing to respond in due time. The FIDIC drafters apparently see the instant submission of a claim by the Contractor to the DAB as a more beneficial situation for the Contractor than waiting and waiting for a determination from the Employer's Representative.

Whilst on the face of it the default of the Employer's Representative and the other provisions of Sub-Clause 20.1 may lead to more issues ending up with the DAB it would appear that the FIDIC drafters have attempted to provide an overall timetable (adequately noted within the Flow Charts at page 9 of the book) for the resolution of Contractor's claims. Certainly to succeed the Contractor has to be able to establish its claims swiftly and with all particularisation!