

# The rainbow suite

## The 1999 FIDIC suite part 3

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This is the third in a series of articles being published in **CES**<sup>1</sup>. 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**<sup>2</sup> and **Phil Duggan**<sup>3</sup> of **Driver**<sup>4</sup>, 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.

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**Paul Battrick**  
Managing Director (International)  
FRICS MCI Arb CEDR Accredited  
Mediator



**Phil Duggan**  
Director (International)  
BSc MSc MCI Arb

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### 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.

**F**amily **P**lanning **O**ften **M**eans **C**areful  
**C**hoice 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...**

# driver

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For details please contact us at [international@driver-group.com](mailto:international@driver-group.com) or call +44 (0) 20 7247 4989

*This article was first published in 'Civil Engineering Surveyor' (CES) November 2011. The title is the journal of the Chartered Institution of Civil Engineering Surveyors.*

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## Endnotes

1. **CES** is an abbreviation of the title 'Civil Engineering Surveyor' which is the journal of the Chartered Institution of Civil Engineering Surveyors.

2. **Paul Battrick**

Managing Director (International)  
FRICS MCI Arb CEDR Accredited Mediator

A chartered quantity surveyor, Paul heads Driver Group's London based international business, with the exception of the Middle East and Africa.

He supports international clients by acting as either a Mediator or Expert Witness in the event of Litigation and/or Arbitration. He has extensive experience in the Energy sector advising clients in respect of EPC power plants, constituent parts such as boilers, turbines, generators and also ancillaries such as flue gas desulphurisation plants. Paul is a practising CEDR Mediator.

3. **Phil Duggan**

Director (International)  
BSc MSc MCI Arb

A director of Driver's international business, Phil has over twenty years industry experience providing quantum, contractual and commercial advice to clients on major projects.

His experience includes over twelve years in the water & waste water, power generation and oil, gas and petrochemical sectors with clients depending on his high level of technical understanding of the mechanical, electrical and process elements.

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The company's international business is administered from Driver's London office.

1 Norton Folgate  
London  
E1 6DB

[international@driver-group.com](mailto:international@driver-group.com)

Telephone +44 (0) 20 7247 4989 Facsimile +44 (0) 20 7247 4959