



#### Introduction

#### The FIDIC suite of contracts

The FIDIC suite of construction contracts is written and published by the International Federation of Consulting Engineers. The FIDIC acronym stands for the French version of the Federation's name (Federation Internationale des Ingenieurs-Conseil).

The best known of the FIDIC contracts are the Red Book (building and engineering works designed by the Employer) and the Yellow Book (M&E, building and engineering works designed by the Contractor). The original edition of the Red Book dates back to 1957.

In recent years FIDIC has published many new contracts to complement the suite. The first of the new contracts was the Orange Book for design, build and turnkey works published in 1995.

In 1999 FIDIC published a revised suite of contracts with updated versions of the Red and Yellow books together with a Green Book as the short form of contract and a Silver Book for turnkey contracts.

More recently in 2005 FIDIC published an amended version of the Red Book for use by Multilateral Development Banks and in 2007 published a seminar edition of the Gold Book for Design, Build and Operate contracts.

Less well know FIDIC contracts are also available such as the Turquoise Book for Dredging and Reclamation Works published in January 2006 and the White Book model services agreement published in October 2006

The FIDIC suite of contracts now covers a wide range of projects and methods of procurement. It is therefore likely that any international contractor or consultant working outside of the UK will frequently encounter FIDIC conditions of contract.

Sub-contractors will similarly encounter FIDIC derived conditions of contract where they are operating internationally. Even subcontractors that only operate within a particular country will from time to time encounter FIDIC derived conditions where they are operating within a supply chain governed by a FIDIC main contract.

Employers may also use FIDIC conditions where the local standard conditions of contract are not suited to the procurement route and there is a need to avoid the risks and expense of preparing a bespoke contract.

The different forms of contract within the FIDIC suite are organised around the extent of design and other responsibilities assumed by the Employer and the Contractor. The suite is therefore now aligned with common procurement strategies rather than the nature of the construction works.

Where works are predominantly designed by the Employer, then the Red Book is the appropriate form of contract. Where works are predominantly designed by the Contractor the Yellow Book is appropriate regardless of whether the works were heavy civils or M&E. The Silver Book is clearly intended for use on Turnkey projects and the Gold Book where



the contractor operates the asset in addition to designing and building.

Employers may benefit from utilising FIDIC conditions where potential bidders are from different countries. In such cases the bidders may perceive the use of the familiar FIDIC conditions as increasing the attractiveness of enquiry. This could translate into lower tenders as the contract risks should be better understood by the bidders.

The FIDIC forms can therefore be applied to a wide range of differing engineering and construction projects; from traditional civil engineering to hi-tech windmills and heavy duty oil and gas process plants.

FIDIC has reduced the number of clauses in all of the recent contracts. The Orange Book contained 20 clauses, as now do the Red, Yellow and Silver Books. Previously, the Red Book had 72 clauses.

FIDIC has also standardised the terms across the full suite so that wherever possible the same words and definitions have the same meanings and the clauses are now grouped in a logical manner across all the contracts.

Knowledge of one form of FIDIC conditions is therefore of immediate benefit in respect of other forms.

Each of the main conditions of contract in the suite now contains a core of common conditions with little significant difference between them.

Amendments to the standard published FIDIC contracts are incorporated by the inclusion of Particular Conditions and guidance on how to prepare the Particular Conditions is published by FIDIC. Where Particular Conditions are incorporated into the contract care must be

taken to ensure that no ambiguity is created, either with the General Conditions or between the clauses in the Particular Conditions. It is essential that all these drafting tasks, and the entire preparation of the contract documents, are entrusted to personnel with the relevant experience of the contractual, technical and procurement aspects of the project.

The suite does not currently include a standard form of subcontract although in 2004 FIDIC stated that a Subcontract form would be a desirable addition to suite. It is expected that if a subcontract form is published that a version for use with the Red Book main contract will be first.

The main forms of contract are described further in some detail below



## **Green Book**Short Form of Contract

First Edition 1999

Contents of Contract Book

- Agreement
- General Conditions
- Rules for Adjudication
- Notes for Guidance

The Short Form of Contract is recommended for engineering and building work of relatively small capital value. The Guidance Notes for the Green Book recommended that generally it should not be used on projects with a contact value greater than US\$500,000.

However, depending on the type of work and the circumstances, the Green Book may be suitable for contracts of considerably greater value.

It is a flexible document containing all the essential administrative and commercial arrangements. It is possible to easily amend and supplement the provisions of the Green Book with differing options incorporated via the Appendix.

The Green Book is likely to be most suited fairly simple or repetitive work or work of short duration without the need for specialist sub-contracts.

Under the usual arrangements for this type of contract, the Contractor constructs the Works in accordance with design provided by the Employer. However it may also be suitable for contracts which include, or wholly comprise, the contractor's design.

An area of potential concern for Contractors is that there is no reference to an impartial Engineer in the contract. The contract nominates a member of the Employer's personnel as the authorised person to fulfil the traditional duties of the Engineer.

The intention is that all contract documents will be incorporated in the Appendices to the Agreement. The Appendices will therefore include such documents as the Contractor's offer and the Employer's acceptance together with all the correspondence in between.

The standard General Conditions are intended to be applicable to the majority of projects although it is possible to introduce Particular Conditions if these are required to amend the Green Book and provide for special circumstances of the project.

To assist in the preparation of tender and contract documents Notes for Guidance are included within the Green Book. However these notes do not form part of the Contract.

It is interesting to note that the Green Book includes Rules for Adjudication which is an innovation for a suite of contracts that is traditionally thought of as being relevant to the international market and not domestic to the UK.



#### **Red Book**

#### Conditions of Contract for Construction For Building and Engineering works designed by the Employer

First Edition 1999

Contents of Contract Book

- General Conditions
- Guidance for the Preparation of the Particular Conditions
- Forms of Tender and Contract Agreement
- Dispute Adjudication Agreement

The Red Book provides conditions of contract for construction works where the design is carried out by the Employer. The current Red Book bears little resemblance to its predecessors. Earlier versions of the Red Book were drafted for use on civil engineering projects. The current edition drops the words "civil engineering" from the title and this signifies a move away from the Red Book only being applicable to civil engineering works.

In line with the rest of the FIDIC suite the focus is now more on type of procurement rather than the nature of the works. The Red Book is therefore applicable to any construction works were the Employer carries out the design.

The Red Book is intended for use on projects where the employer carries out the design but it also allows for some elements of the project to be Contractor designed. The Red Book is not suitable for use where most of the works are to be designed by the Contractor and for

such projects it would be more appropriate to use the Yellow Book or Silver Book.

As with earlier versions of the Red Book administration of the project and supervision of the works is carried out by an Engineer who is employed by the Employer. The engineer is responsible, amongst other things, for issuing instructions, certifying payments and determining completion.

Payments are normally determined by measurement and applying the rates and prices from the bill of quantities. There is an option for payment to be on the basis of a lump sum.

Where the engineer is required to determine a matter or settle a claim he is required to consult with each of the parties to try and reach an agreement. If agreement cannot be reached the engineer must make a fair determination taking due regard of all relevant circumstances.

If an engineer's determination is not agreed by either of the parties then the dispute will be referred to a Dispute Adjudication Board for a decision. The DAB is formed of one or three people who are jointly appointed by the parties. If the decision of the DAB is not accepted by any of the parties then the final step will be resolution via an international arbitration.

The General Conditions and the Particular Conditions together comprise the Conditions of Contract. Guidance is provided in the Red Book for the preparation of Particular Conditions should it be necessary to modify the General Conditions. The Guidance also contains various forms of security such as parent company guarantee, advance payment bond and a retention guarantee which can be selected as applicable to the contract via the Particular Conditions.

This Red Book concludes with example forms for the Letter of Tender, the Appendix to Tender (providing a check-list of the subclauses which refer to it), the Contract Agreement, and a Dispute Adjudication Agreement.



#### Red Book (MDB edition)

Conditions of Contract for Construction For Building and Engineering works designed by the Employer

MDB Edition 2005

Contents of Contract Book

- General Conditions
- Guidance for the Preparation of the Particular Conditions
- Forms of Tender and Contract Agreement
- Dispute Adjudication Agreement

As part of their standard bidding documents the Multilateral Development Banks (MDBs) have for a number of years required their borrowers or aid recipients to adopt the FIDIC Conditions of Contract.

The FIDIC MDB edition of the Red Book simplifies the use of the FIDIC contract for the MDBs, their borrowers and others involved with project procurement, such as consulting engineers, contractors and contract lawyers.

The following MDBs that have all participated in the preparation of this edition of the Red Book:

- African Development Bank
- Asian Development Bank
- Black Sea Trade and Development Bank
- Caribbean Development Bank
- European Bank for Reconstruction and Development
- Inter-American Development Bank

- International Bank for Reconstruction and Development (The World Bank)
- Islamic Bank for Development Bank
- Nordic Development Fund

It is expected that all of the participating MDBs will adopt this edition of the FIDIC document in their standard bidding documents in the future.

Use of these MDB conditions should significantly reduce the number of additions and amendments to be included in the Particular Conditions.

Nevertheless, most projects will have special requirements which will necessitate some specific changes. The contract therefore retains provision for Particular Conditions as is common with other FIDIC contracts.

As with the main Red Book this MDB edition also includes sample forms for Contract Data, Securities, Bonds, Guarantees and Dispute Board agreements.

In most cases, the amendments which have been made to produce the MDB edition are those arising from the requirements of the MDBs, except for some minor changes of an editorial nature.

However, in the case of the dispute provisions contained in Clauses 20.2 to 20.8 and in the associated Appendix, the opportunity has been taken to make other amendments which FIDIC considered an improvement on the earlier wording as contained in the Red Book 1999 edition.



#### **Yellow Book**

### Conditions of Contract for Plant and Design-Build

For electrical and mechanical plant, and for building works, designed by the Contractor **First Edition 1999** 

Contents of Contract Book

- General Conditions
- Guidance for the Preparation of the Particular Conditions
- Forms of Tender and Contract Agreement
- Dispute Adjudication Agreement

The Yellow Book provides conditions of contract for construction works where the design is carried out by the Contractor. The current Yellow Book bears little resemblance to its predecessors. The current edition drops the words "electrical and mechanical works" from the title and in line with the rest of the FIDIC suite the focus is now more on type of procurement rather than the nature of the works.

The Yellow Book is therefore applicable to the provision of electrical and/or mechanical plant, and for the design and execution of building or engineering works. Under the usual arrangements for this type of contract, the Contractor designs and provides the works in accordance with the Employer's requirements which may include any combination of civil, mechanical, electrical and/or construction works.

Administration of the project and supervision of the works is carried out by an Engineer who is employed by the Employer. The Engineer is responsible, amongst other things, for issuing instructions, certifying payments and determining completion. Interim payments of the lump sum Contract Price are made as work proceeds, and are typically based on instalments specified in a schedule

Where the engineer is required to determine a matter or settle a claim he is required to consult with each of the parties to try and reach an agreement. If agreement cannot be reached the engineer must make a fair determination taking due regard of all relevant circumstances. If an engineer's determination is not agreed by either of the parties then the dispute will be referred to a Dispute Adjudication Board for a decision. The DAB is formed of one or three people who are jointly appointed by the parties. If the decision of the DAB is not accepted by any of the parties then the final step will be resolution via an international arbitration.

The General Conditions and the Particular Conditions together comprise the Conditions. Guidance is provided for the preparation of Particular Conditions should it be necessary to modify the General Conditions. The Guidance also contains various forms of security such as parent company guarantee, advance payment bond and a retention guarantee which can be selected as applicable.

The General Conditions as drafted may not suit the Employers particular needs (for example the standard inclusion of advance payments). Care must be taken in the preparation of the Particular Conditions and completion of the Appendix to avoid creating ambiguities around such conditions. A major area for consideration when preparing Particular Conditions is the risk allocation for ground conditions which is an Employer risk in the standard draft.

The Yellow Book concludes with example forms for the Letter of Tender, the Contract Agreement, and a Dispute Adjudication Agreement.



#### **Orange Book**

### Conditions of Contract for Design-Build and Turnkey

First Edition 1995

Contents of Contract Book

- General Conditions
- Guidance for the Preparation of the Particular Conditions
- Forms of Tender and Agreement

The Orange book was published in 1995 to provide a design and build option to the then current FIDIC suite. The Orange Book was the first FIDIC contract to adopt the now current FIDIC style of drafting and was a template for the drafting teams when preparing the 1999 suite of contracts.

When the Orange book was published the Red and Yellow Books were still aimed at procurement of civil engineering and plant installation respectively. At the time it added a clear design and build and turnkey option into the available suite of contracts.

Since the publication in 1999 of the latest Red and Yellow Books there is now less focus on the type of project and more focus on the implementation of different procurement strategies. It is now likely that an Employer requiring a design and build or turnkey project under a FIDIC contract would use a 1999 edition of the Yellow Book for design and build or a Silver Book for Turnkey.

The Orange Book is drafted for use where the Contractor carries total liability for design. For the Employer, such single-point responsibility may be advantageous, but the benefits may be offset by having less control over the design process and more difficulty in imposing varied requirements.

Under the usual arrangements for a designbuild contract, the Contractor is responsible for the design and provision of works. The works may include any combination of engineering (including civil, mechanical, electrical, etc) and building works.

The Orange Book is intended for use on turnkey contracts, under which the Employer's requirements usually include provision of a fully-equipped facility, ready for operation at the turn of a key. The exact Employer requirements will need to be fully detailed to describe the design, construction, fixtures, fittings and equipment required to be provided by the Contractor's design.

When used for turnkey projects it may be necessary to impose a requirement for the Contractor to operate the Works, either for a few months' commissioning period, or for some years' operation on a build-operate-transfer basis. If this is the case then the FIDIC Gold Book may now be more appropriate.

There are many sub-clauses within the Orange Book which FIDIC decided were generally applicable and these are included in Part I - General Conditions. The Orange Book is arranged to accommodate modification and supplementing of the General Conditions by the inclusion of Part II - Conditions of Particular Application. The Orange Book contains a section of guidance on preparing the Part II conditions. The Part I and Part II conditions together govern the rights and obligations of the parties.



# Silver Book Conditions of Contract for EPC/Turnkey Projects First Edition 1999

Contents of Contract Book

- General Conditions
- Guidance for the Preparation of the Particular Conditions
- Forms of Tender and Contract Agreement
- Dispute Adjudication Agreement

The Silver Book is suitable for use on process, power and private-infrastructure projects where a Contractor is to take on full responsibility for the design and execution of a project. Risks for completion to time, cost and quality are transferred to the Contractor and so the Silver Book is only suitable for use with experienced Contractors familiar with sophisticated risk management techniques.

For many large projects construction is only one part of a wider complicated commercial venture and financial or other failure of the construction project will jeopardize the whole venture. The Silver Book approach may suit such projects as it will provide a greater level of cost certainty than can be achieved under the more traditional forms of the FIDIC suite.

To obtain this increased cost certainty the Silver Book requires the Contractor to accept a higher level of risk than is typical under most other forms of contract. The Silver Book transfers the risk of ground conditions to the Contractor. Similarly the Contractor also

assumes responsibility, subject to some exceptions, for the accuracy of the Employers Requirements which is a major difference to usual design and build contracts.

Given the high level of risk transfer the Employer must allow time sufficient time in its procurement programme for the Contractor to obtain and consider all relevant information before signing the contract.

Not all risk is passed to the Contractor under the Silver Book and the Employer still retains risks for war, terrorism and Force Majeure. Through the use of Particular Conditions it is possible for the Employer and Contract to agree alternative risk sharing arrangements before entering into the Contract.

Following award of a project under the Silver Book the Contractor will be given freedom to carry out the work in his chosen manner, provided the end result meets the performance criteria specified by the Employer. Consequently, the Employer should only exercise limited control over the Contractor's work.

There is no reference to an Engineer in the Silver Book. This is because the Employer's reduced influence on the engineering generally. Checking of engineering is more concentrated on validating the endperformance and validating the potential ease of operation, maintenance and spares.

The Silver Book provides conditions relating to 'Tests on Completion' and Taking Over only takes place after successful completion of the tests. Such provisions are important for EPC/Turnkey projects where the purpose of the contract is to provide the Employer with a working facility.

Guidance is provided for the preparation of Particular Conditions should it be necessary to modify the General Conditions.

As with the other FIDIC contracts the Silver Book contains various forms of security and concludes with example forms for the Letter of Tender, the Contract Agreement, and a Dispute Adjudication Agreement.



#### **DBO Contract**

Conditions of Contract for Design, Build and Operate Projects

First Edition 2008

Contents of Contract Book

- General Conditions
- Particular Conditions
- Sample Forms

Following publication of the Orange Book in 1995 and the Red, Yellow and Green Books in 1999 it became clear that there was a growing need for a contract combining a design-build obligation with a long-term operation commitment.

The approach and layout of the DBO contract is more similar to the FIDIC Silver book than any other contract within the FIDIC suite.

The DBO contract adopts a "green-field" DBO scenario with a 20 year operation period and a single contract awarded to a single contracting entity (which will almost certainly be a consortium or joint venture) to optimise the coordination of innovation, quality and performance, rather than award separate contracts for design-build and for operation.

Under the DBO contract the Contractor has no responsibility for either financing the project or for its ultimate commercial success.

The DBO contract, as written, is not suitable for contracts which are not based on the traditional DBO sequence, or where the

Operation Period differs significantly from the 20 years adopted.

The document is recommended for general use where tenders are invited on an international basis.

The contract attempts to include all conditions of a general nature, which are likely to apply to the majority of DBO contracts, as General Conditions.

However it is recognised that many employers or governments, or even different jurisdictions, particularly if the conditions were to be used on domestic contracts, may require special conditions of contract, or indeed particular procedures, which differed from those included in the General Conditions.

For this reason, the DBO document Particular Conditions Part B – Special Provisions includes advice to drafters of contract documents who wish to add Special Provisions to replace or supplement the clauses to be found in the General Conditions.

Users who wish to adopt the conditions for use with a different scenario (such as a brown field operate, design, build) or with an operation period significantly different to the 20-year period assumed, are referred to the DBO Contract Guide which identifies the clauses which will require amending by including Special Provisions, and gives comprehensive guidelines and suggestions on how the various issues should be addressed.

Successful performance of a long-term DBO contract requires that the parties fully understand the overall time framework and the need for a long-term commitment by both the employer and the contractor. It has therefore been necessary to introduce new procedures and new terminology which are not to be found in the other FIDIC forms of contract.