

**FIDIC Conditions of Contract  
IBC Conference 2003**

**Presentation Notes on:**

**OVERVIEW OF THE NEW MAJOR CONTRACTS**

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**1. Introduction**

FIDIC - the International Federation of Consulting Engineers - published late in 1999 a suite of four new Standard Forms of Contract<sup>2</sup>. This new suite comprises 3 Books for major works and 1 for minor:

- Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer : *The Construction Contract*
- Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Plant, and for Building and Engineering Works, Designed by the Contractor : *The Plant and Design/Build Contract*
- Conditions of Contract for EPC/Turnkey Projects : *The EPC/Turnkey Contract*
- Short form of Contract : *The Short Form*.

The Books in the new suite are all marked 'First Edition 1999', and the reason is that they can not be regarded as direct updates of FIDIC's very well-known and widely used 'Red Book', 'Yellow Book' and 'Orange Book'<sup>3</sup>, i.e. respectively:

- Conditions of Contract for Works of Civil Engineering Construction (1987)
- Conditions of Contract for Electrical and Mechanical Works including Erection on Site (1987)
- Conditions of Contract for Design-Build and Turnkey (1995).

The suite has now been complemented by the Contracts Guide for the three major New Books.

**2. Purpose and Drafting Principles**

When drafting these new standard Conditions, the following principles were followed:

- for engineering construction contracts, between 'the Employer' and 'the Contractor'
- primarily for international projects (adjustment for national projects possible)
- 'manuals of good engineering practice' prepared by engineers for practical use
- balance between legal precision and practicability, i.e. correct level of detail
- to cover projects of all sizes and complexity
- to be equitable to employer and contractor (any imbalance of risks to be clearly stated)
- provide flexibility for individual contracts
- 2 parts - General Conditions and Particular Conditions

### **3. Standardisation and User Friendliness**

The old Books were not standardised. The New Books should be standardised as far as possible and as user friendly as possible. The 'users' will be those preparing documents for a project, and those using them during construction.

- definitions and terminology are the same in all 3 Books (except for intentional differences)
- 20 Clause layout and titles are the same (except for intentional differences)
- wording identical (except for intentional differences)
- diagrams of typical sequence of events included
- alphabetical list of definitions
- clauses included applicable to most (but not all) contracts
- alternative clauses in Guidance for Preparation of Particular Conditions
- clauses often interchangeable, i.e. import from another Book
- data required by General Conditions included in Appendix to Tender (EPCT Part. Conds)
- simple to delete or not invoke clauses which are not required
- forms for guarantees, Letter of Tender, Contract and DAB Agreements, etc, included
- index of Sub-Clauses included

But remember:

- preparation to be done by experienced personnel - not 'blind' acceptance!
- clauses must always be checked for appropriateness, and adjusted where necessary
- adjustments/modifications to be made in Particular Conditions
- use Guidance for Preparation of Particular Conditions

#### **4. Conditions of Contract for Construction** for Building and Engineering Works Designed by the Employer

The New Red Book is similar to - and an update of - the Old Red Book, but with new features:

- Old 'Red Book' dealt only with civil construction work - the New Red Book covers all types of work *designed by the Employer*.
- suitable for all projects where main responsibility for design lies with Employer (or his Engineer)
- *some* design may, of course, be carried out by Contractor
- basically an update of Old Red Book
- administration of Contract and supervision by Engineer
- approval of work, payment, etc. certified by Engineer
- work done is measured, payment according to Bill of Quantities
- option for payment on Lump Sum basis

#### **5. Conditions of Contract for Plant and Design-Build** for Electrical and Mechanical Plant, and for Building and Engineering Works, Designed by Contractor

The New Yellow Book replaces both the Old Yellow Book and the Orange Book:

- Old 'Yellow Book' dealt only with electrical and mechanical construction works (most design being done by Contractor)
- the 'Orange Book' from 1995 dealt with Design-Build and Turnkey for civil and other construction where majority of design done by Contractor
- the New Yellow Book covers all types of work *designed by the Contractor*
- it therefore updates and replaces both the Old Yellow and the Orange Books
- (layout of all the New Books follows closely that of the Orange Book)
  
- New Yellow Book is thus suitable for all types of projects where main responsibility for design lies with Contractor
- recommended for the provision of electrical and/or mechanical plant, *and* for the design and execution of building or engineering works
- (the majority of such projects may well be electrical and mechanical works. Many will be a combination of civil, e & m, and/or building)
- *some* design may, of course, be carried out by Employer or his Engineer
- Employer provides 'Employer's Requirements' to which Contractor designs

- administration of Contract and supervision by Engineer
- approval of work, payment, etc. certified by Engineer
- payment on Lump Sum basis, usually against a Schedule of Payments
- testing procedures usually more complicated than for 'New Red Book'

## 6. Some Features of the Construction Book and the Plant and. Design-Build Book

Identical or similar provisions are included in both Books for many matters:

- traditional competitive tendering procedures are envisaged
  - and Contract becomes legally effective when Employer issues the Letter of Acceptance in response to the successful Tender
  - alternatively, if no LOA, then on signing of Contract Agreement
- risk sharing is balanced between Parties, as in Old Red and Yellow Books, e.g.
  - Employer takes risk of 'adverse physical conditions' - C14.12
  - and unforeseeable 'operation of the forces of nature' - CI 17.3(h)
  - and design by Employer - CI 17.3(g)
  - in addition to war (anywhere), terrorism, riot, & similar (within the country), etc
- all claims, from either Party, have to follow a strict procedure - CI 2.5 & 20.1 (see later)
  - Engineer must consult both parties and try to reach agreement
  - if no agreement, Engineer makes *fair determination in accordance with the Contract, taking due regard to all relevant circumstances'*
  - if not accepted, then Dispute Adjudication Board takes over
  - there is no longer the 'Engineer's Decision', it is now the DAB's
  - (except that option still remains for Engineer also to be the DAB) (see later)
- Engineer is no longer stated to be 'impartial' as old Red & Yellow Books
  - he 'shall be deemed to act for the Employer', except as otherwise stated - C13.1
  - however, when he has 'to agree or determine' any matter he shall '*make a fair determination in accordance with the Contract ...'* as above-said - CI 3.5
- if Contractor is awarded extra time or Cost for Unforeseeable physical conditions - C14.12
  - Engineer may review '*whether other physical conditions in similar parts of the Works'* were more favourable than could reasonably have been foreseen, and these may entitle deduction
  - but, all such deduction shall not result in net reduction of Contract Price
- Employer must submit - when requested - evidence that he has the finances to pay the

current Contract Price - Cl 2.4 (Applies to all 3 Books)

- if Employer does not provide evidence Contractor can suspend (or reduce rate of) work - Cl 16.1 - or, if evidence is not received within 42 days, terminate - Cl 16.2

## 7. Need for a New Book where Final Price is More Certain

The Old Books only covered part of the international need.

- Old 'Red and Yellow Books' recognised for balanced risk-sharing, meaning that:
  - Employer only pays extra when specific risks actually occur
  - Contractor does not have to estimate for unlikely hard-to-value risks
  - BUT final price and time is uncertain
- market has shown requirement for more certain final price and time in two ways:
  - some Employers have - for many years - changed FIDIC Books balance to place more responsibility on Contractor
  - development of privately financed projects (BOT etc) where lenders want definition of final price and time
- for such projects Contractor is asked to cover a wider range of risks of final cost and time including often ground conditions, guaranteed result, etc
- Employers must, however, realise that:
  - essential that Contractors are given adequate time and opportunity to consider and evaluate all information and risks
  - the price for the project will be higher to cover the extra risk-taking
  - Employers will anyway have *some* risks
- FIDIC therefore produced this *completely New Book* for:
  - those projects where Employers want traditional projects with a more certain final price and less Employer-risk
  - BUT as a Book where Parties enter the Contract with full understanding, and acceptance, of the risks (instead of trying to adapt another risk-sharing arrangement)
  - as a common starting point for EPC<sup>4</sup>/Turnkey type projects, usually with private financing, in a BOT or similar environment
- the EPCT Book is thus intended to be suitable for the many projects, both larger and smaller:
  - particularly E & M and other process plant projects
  - all types of employers

- often civil law countries
- where government employer or private developer wants his project on a fixed price turnkey basis and with strictly two-Party approach (i.e. no Engineer)

EPCT Book includes an 'Introductory Note' where these matters are discussed.

## 8. Conditions of Contract for EPC/Turnkey Projects (Silver Book)

EPCT is a completely new Book

- responsibility for design lies solely with Contractor
- Employer provides 'Employer's Requirements' to which Contractor designs
  - Employer's Requirements usually 'performance specification' type
- Contractor carries out all engineering, procurement, construction providing a fully-equipped facility, ready for operation at 'the turn of a key'
- no Engineer - instead it is the Employer
  - Employer may appoint an Employer's Representative
- lump sum Contract Price (but adjustments in limited specified cases)
  - interim payments as work proceeds, usually against a Schedule
- testing procedures including Tests after Completion
- all claims, from either Party, have to follow a strict procedure
  - Employer must consult with Contractor to try to reach agreement
    - if no agreement, Employer makes *fair determination in accordance with the Contract, taking due regard to all relevant circumstances'*
    - if not accepted, then Dispute Adjudication Board takes over
- Contractor takes majority of risks, Employer pays more to cover such risks
- final price and time of completion should be more certain

## 9. Circumstances Governing Use of EPCT Book

Circumstances for use of the Silver Book are somewhat different from traditional projects:

- Employer's Requirements should describe principle and basic design of the plant on a functional basis (i.e. performance specification)
- procurement procedures are different:
  - tenderers permitted and required to verify all information and data and make other

- investigations, which may require considerable time
  - tenderer may also have to carry out preliminary design, also time and money
  - therefore often an early reduction to a small number of tenderers
  - tendering period has to permit discussions, at least with 'preferred tenderer(s)', about technical matters and commercial conditions
- Contractor should be given freedom to carry out Works in his chosen manner
  - as long as end results meet specified performance criteria
  - Employer should exercise limited control and not interfere
  - however Employer will want to know that progress is following time programme, work is up to quality, third parties are not disturbed, performance tests are met with, and other Employer's Requirements are adhered to
- Contractor has to prove reliability and performance of completed project, therefore emphasis on testing, often over considerable period
- privately-financed projects subject to more negotiation than public and therefore more likely to change standard conditions - but a standard form is necessary anyway as a starting point.
- These Conditions are *not suitable* in following circumstances:
  - if time or information is insufficient before Contract signature
  - if considerable work underground or difficult to inspect
  - if Employer intends to supervise closely or control or review
  - if an intermediary determines interim payments
  - where part of Works is designed by Employer
  - for public bidding without negotiations
  - for such circumstances P&DB should be used instead
- EPCT Book has come because of market demand - given free choice FIDIC would recommend use of P&DB with its balanced risk sharing

## 10. Comparison of Salient Features of Plant and Design-Build and EPC/Turnkey Books

For EPCT the intention is that all matters that could cause a price change (incl. time change) should - as far as possible - be sorted out and agreed *before Contract signature* to ensure firm final price.

Notable differences between these two Books - apart from the extra risks allocated to the Contractor - include (inter alia) the following:

- for P&DB usually the best tender is accepted by a LOA. For EPCT typically becomes

legally effective on signing the Contract Agreement

- Employer administers the Contract - unless he appoints an Employer's Representative
- interim and final payments are made without certification, usually Schedule of Payments
- under P&DB the Engineer may issue necessary instructions - Cl 3.3. Under EPCT the Employer may only issue an instruction if he can state the obligations in the Contract to which it relates – Cl 3.4
- both Books require the Contractor to design the Works to '*benefit for purpose*' - Cl 4.1
  - to enable the Contractor to accept this requirement he has to have complete information and sufficient time to scrutinize, verify and evaluate all relevant data.

This is allowed for as follows:

- In P&DB Employer is ultimately responsible for his Employer's Requirements – Cl 1.9. However Cl 4.10 requires the Tenderer to obtain all information etc '*to the extent which was practicable (taking account of cost and time)*' before submitting the Tender
- Then, after Contract signature, he has a scrutiny period within which to find out any errors, faults or defects in Employer's Requirements (as an experienced contractor exercising due care would have discovered). Cl 5.1 Any such error entitles a variation.
- In EPCT<sup>5</sup>, the Contractor-to-be is expected - *before Contract signature* - to have verified and interpreted all data from the Employer - Cl 4.10 - and obtained all other necessary information - Cl 4.12 - and thus - *on Contract signature* - takes over all responsibility both for the design as well as for the accuracy of the Employer's Requirements (including design criteria and calculations) - Cl 5.1
- Except that the Employer remains responsible for the matters under (a)-(d) of Cl 5.1, i.e. basically matters which Contractor cannot verify.
- EPCT does not allow for '*Unforeseeable Physical Conditions*' - Cl 4.12, but the Book is not suitable when such unforeseeable matters constitute an appreciable risk<sup>6</sup>.
- both Books require final operation and maintenance manuals *before* taking-over - Cl 5.7
- EPCT does not allow for time extension for exceptionally adverse climatic conditions or unforeseeable shortages of personnel or Goods due to epidemic or governmental actions -Cl 8.4
- both Books allow for time extension for unforeseen delay by authorities - Cl 8.5



- EPCT does not allow partial taking-over or early use by Employer - Cl 10.2
- EPCT does not anticipate price adjustment for rise in costs - Cl 13.8

## 11. Conclusion

By the introduction of this suite of 3 matching new standard forms for major contracts, together with the 'Green Book' for minor works contracts (and, indeed, the Dredging Form), FIDIC has updated and widened the scope of its standard forms. It is believed and hoped that one or other of the suite will be suitable for use on virtually every international engineering construction project, from minor projects, through the whole range of traditional civil, electrical, mechanical and other plant contracts, to the large complex multi-disciplinary projects, including those of BOT or similar type. As regards which Book to select for any particular project, guidance is given in the Introduction to the FIDIC Contracts Guide.<sup>7</sup>

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<sup>2</sup> Available from FIDIC Bookshop, POBox 86, CH-1000 Lausanne 12, Switzerland. <http://www.fidic.org>

<sup>3</sup> Also available from FIDIC

<sup>4</sup> EPC='engineering, procurement, construction' (US) which is approx same as 'Turnkey' (European)

<sup>5</sup> where traditional competitive bidding procedures between more than a few tenderers are normally not appropriate, and where some negotiation is necessary and permitted

<sup>6</sup> Introductory Note to EPCT, last para.

<sup>7</sup> The FIDIC Contracts Guide, 2000, with detailed guidance on using the First Editions of FIDIC's 3 major New Books