# An Employer's and Engineer's Guide to the FIDIC Conditions of Contract

**Michael D. Robinson** 





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- Model Form for Submissions to the Engineer
- Model Form of Engineer's Order for Varied Works
- Model Form of Daywork/Daily Record Sheets

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#### Michael D. Robinson

**Independent Consulting Engineer** 



A John Wiley & Sons, Ltd., Publication

This edition first published 2013 © 2013 John Wiley & Sons, Ltd

Wiley-Blackwell is an imprint of John Wiley & Sons, formed by the merger of Wiley's global Scientific, Technical and Medical business with Blackwell Publishing.

Registered Office

John Wiley & Sons, Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

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Library of Congress Cataloging-in-Publication Data

Robinson, Michael D., (Consulting engineer)

An employer's and engineer's guide to the FIDIC conditions of contract / Michael D. Robinson.

pages cm

Includes indexes.

ISBN 978-1-118-38560-9 (cloth)

- 1. Construction contracts. 2. Engineering contracts. 3. Architectural contracts.
- 4. Standardized terms of contract. 5. FIDIC form of contract. I. Title.

K891.B8R6136 2013

343.07'8624-dc23

2012040308

A catalogue record for this book is available from the British Library.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

ISBN: 978-1-118-38560-9

Set in 10/12pt Sabon by SPi Publisher Services, Pondicherry, India

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## **Preface**

The Conditions of Contract prepared by FIDIC have for many years had no rival as the standard form of choice for use in the international construction industry.

Traditionally in the standard FIDIC forms the Engineer was given an authorative role, enabling him to make informed judgements concerning the conduct and execution of projects with a large measure of independence from the Employer. From time to time FIDIC updated these standard forms, continuing to maintain the traditional role of the Engineer, culminating in the 4th Edition 1987 (reprinted 1992).

These standard forms described the duties, responsibilities and obligations of not only the Employer and the Contractor, the signatories of the Contract, but also the Engineer, engaged by the Employer to supervise the execution of the Contract. Not infrequently the Engineer was also engaged by the Employer to execute the design of the project under the terms of a separate agreement.

However, throughout the 1980s and 1990s discernible changes developed in the international construction industry. Employers increasingly became involved in the day-by-day administration of projects, thereby restricting the powers of the Engineer to act independently of the parties. This trend was amplified as more projects were financed by international financing agencies who, understandably, sought greater control over the budgetary aspects of the projects for which they were providing finance. The consequential diminution of the power and authority of the Engineer had the effect of disturbing the allocation of risk between the Employer and the Contractor, and, as many contractors perceived, to their disadvantage.

A further development was the steady increase in international trade, which for the construction industry has resulted in more companies undertaking contracts outside their own national borders.

Disputes have long been endemic to the construction industry. The participation of more and more companies of differing nationalities in projects outside their own borders inevitably increased the number of disputes arising for a multitude of reasons. Engineers and Contractors were not always familiar with the operation of a FIDIC-based contract. Employers, well used to their own national systems of contracting practice and national laws, were faced with having to deal with contracts based on unfamiliar FIDIC forms. As a consequence, the number of disputes increased markedly.

A key feature of the dispute resolution procedure contained in the FIDIC 4th Edition 1987, Sub-Clause 67.1 'Engineer's Decision' was the power and authority of the Engineer to make independent judgements in respect of Contractor's claims. Consequently, as the independence of the Engineer diminished as a result of the increasing direct involvement of the Employer, the value of the Engineer's Decision was increasingly challenged by contractors, with the result that more and more disputes were referred to arbitration.

Few in the construction industry regard arbitration as a satisfactory means of resolving disputes. Arbitration is a lengthy and expensive process. With a more disciplined and flexible approach, solutions may have been negotiated without arbitration. A contractor suffers as a consequence, because he is unable to foresee the outcome of the arbitration and his cash-flow is uncertain and damaged as a consequence of lengthy arbitration. This uncertainty is also detrimental to the Employer's interest.

Against this background FIDIC undertook a major review of their standard forms which in many aspects departed significantly from the forms then in use. Following extensive consultations, a new suite of contract forms was issued in 1999:

- (i) CONS Conditions of Contract for Construction ('The Red Book'), which FIDIC recommends for use on building or engineering works designed by the Employer or his representative, the Engineer
- (ii) P & DB Conditions of Contract for Plant and Design-Build ('The Yellow Book'), which FIDIC recommends for the provision of electrical and/or mechanical plant and for the design and execution of building or engineering works to be designed by the Contractor in accordance with the Employer's requirements
- (iii) EPCT Conditions of Contract for EPC/Turnkey Projects ('The Silver Book'), which FIDIC recommends for the provision of a process or power plant on a turnkey project

A fourth Conditions of Contract entitled 'Short Form of Contract' ('The Green Book') intended for use on contracts involving simple or repetitive work, was also issued by FIDIC in 1999.

In the intervening years FIDIC have expanded the range of Contract Forms to include:

(iv) Conditions of Contract for Construction, MDB Harmonised Edition – 'The Pink Book'

Version 1 Published May 2005

Version 2 Published March 2006

Version 3 Published June 2010

A significant part of financing for internationally tendered projects is provided by one or more of the various international financing agencies, such as World Bank. These agencies had growing reservations that funding provided was subject to mismanagement, which encouraged corruption and financial losses. Eventually there was common

- agreement that the required financial controls could be met by the introduction of a modified form of The Red Book (CONS), which essentially allowed for greater access to the financial records of the Contractors for audit purposes. Other aspects of The Red Book (CONS) are not materially altered in this Harmonised Edition.
- (v) DBO Conditions of Contract. Design. Build. Operate ('The GoldBook'), published 2008. Prior to the issue of these Conditions of Contract, the steady increase in the number of DBO contracts was catered for by modifications and variations to the available standard forms of contract. Each contract was individually prepared and negotiated, often incorporating elements of other FIDIC forms. The addition of the DBO Conditions of Contract to the new suite of contract forms will assist reduce uncertainties and errors.
- (vi) Construction 1999 Red Book Subcontract 4th Edition 2006. This update of subcontract forms, which is now compatible with the new suite of contract forms, is a welcome addition to the FIDIC suite of contract forms.

In the preparation of the new suite of contracts, FIDIC continued with the use of the English language as the language of interpretation, although FIDIC does provide translations into a number of major languages. The availability of these translations can be viewed on the FIDIC bookshop website. In retaining the use of the English language, FIDIC took the opportunity to ensure that all of the forms in the new suite were written in modern English and not the more legalistic English used in the forms of Contract issued prior to 1999. Nonetheless, engineers with a lesser command of the English language have tended to find it difficult to assimilate the requirements, obligations and duties contained in the FIDIC forms.

The FIDIC forms of the Rainbow Suite (excluding The Green Book) are arranged in twenty primary clauses with a total of 158 sub-clauses (in The Red Book) and consequently it takes practice and experience to be able to draw together all the sub-clauses relating to a particular issue. An important example is the presentation of an individual claim by a contractor. The Contractor will be required to make reference not only to the clause or sub-clause that permits the Contractor to make the claim, but also to Sub-Clauses 3.5, 8.4 and 20.1 which are widely separated in the FIDIC forms. It is important that professional users of the FIDIC forms make themselves familiar with the general philosophy adopted by the FIDIC Committee, who were charged with the preparation of these forms.

This book has the aim to assist the Employer and the Engineer and his site staff manage difficulties which frequently arise on typical international contracts using the FIDIC forms. Since the majority of FIDIC-based contracts use The Red Book (CONS) standard forms, this book is focused on those forms. Supplementary comments are included in Appendix A in respect of The Yellow Book (P & DB), recommended for use where the Contractor has a design responsibility. Brief comments on other forms of contract are included in Appendices B and C.

This book is not intended to be a review of the legal aspects of FIDIC-based contracts. Legal advice should be obtained where appropriate, particularly if the Contractor has little or no knowledge of the laws of the country of execution.

It is hoped that this book will assist all site staff in supervisory roles to prevent problems arising, rather than spend considerable time and energy dealing with problems once they have arisen.

It is particularly important that all parties adhere to the procedural requirements given in the Contract and not to make expedient decisions, which eventually can damage site relationships and affect the execution of the Contract.

It is recommended that the reader gives consideration to the purchase of a copy of 'The FIDIC Contracts Guide', published in 2000, which provides valuable additional commentary on the use and interpretation of the referenced FIDIC forms.

# **Acknowledgements**

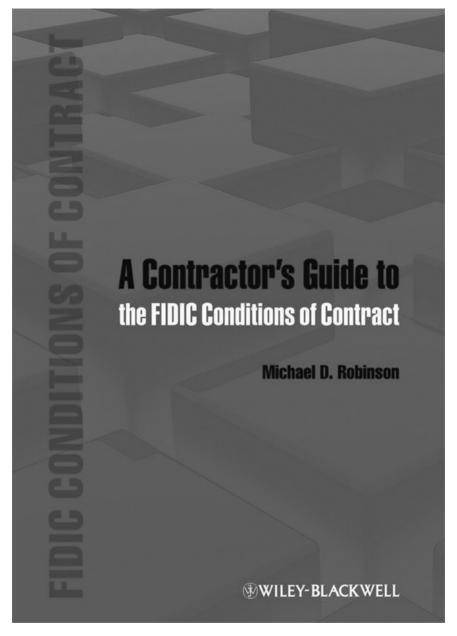
The author is grateful to the Fèdèration Internationale des Ingénieurs-Conseils (FIDIC) for permission to quote extracts from the Conditions of Contract for Construction ('The Red Book') and the FIDIC Contracts Guide. All quoted extracts from these publications are given in italics wherever they occur.

In this book, the Employer, the Engineer, the Contractor and Subcontractors are referred to in the masculine gender in conformity with standard FIDIC Practice. The author wishes to emphasise that the book is intended to address female readers on an equal basis with their male colleagues and that the use of the masculine gender is for practical reasons only.

## **Dedication**

This book is dedicated to my wife Monika, without whose contribution, encouragement and support nothing would have been achieved; to my sons Paul, Simon and Tristan, who have so enriched my life; and to all those who have shared with me many long arduous days working on construction projects worldwide.

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The companion website is at www.wiley.com/go/robinsonfidic and offers invaluable resources for the site-based contractor to freely download and adapt: model form for submissions to the engineer for approval and/or consent; model form of daywork / daily record sheets; and sample model letters for use by the contractor.

# **Chapter 1**

The Employer and the FIDIC Conditions of Contract for Construction (CONS) – 'The Red Book'

#### Clause 1 General Provisions

#### 1.0

Much of the primary planning and organisation of a project is necessarily defined and arranged by the Employer in the pre-tender stage. Consequently the quality of this work will have a significant effect on the execution of the project. The FIDIC Contracts Guide, under the headings of Procurement and Project Documentation, provides valuable guidance to the Employer in respect of this primary planning and organisation.

The FIDIC Conditions of Contract consequently reflects the decisions reached by the Employer in the pre-tender stage and proceeds to define the duties and responsibilities of the Parties and the allocation of risk between them.

The Conditions of Contract incorporated in the tender documents and in the Contract Agreement include a significant number of Clauses and Sub-Clauses the contents of which refer to matters which have (or should have) been addressed by the Employer in the preparation of the tender documents.

The number of issues to be addressed by the Employer during the construction period are somewhat less than might be apparent from a first reading of the Conditions of Contract. These issues are identified and discussed in this chapter.

#### 1.1 Definitions

This sub-clause provides definitions of approximately 65 words and expressions that are used in the Conditions of Contract. With the exception of the words 'day' and 'year', these defined words and expressions are identifiable by the use of capital initial letters.

Consequently, in any submission or correspondence it is important to use the capitalised form of the words and expressions if that is what is precisely intended by the writer.

The FIDIC Contracts Guide (p. 339–346) provides a glossary (dictionary) of words and phrases which are in common use in the civil engineering and building industry. This glossary does not amplify or replace the definitions given in this Sub-Clause 1.1, but the consistent use of the definitions contained in this glossary is useful to ensure clarity on a given topic.

The Employer has the responsibility for the correctness and consistency of the Contract Documents and may find it necessary to introduce additional expressions or words into the text which require appropriate definitions to be added. There are a significant number of words which are loosely used in the construction industry, such as 'variation order', 'working drawings', which are not defined in these Conditions of Contract and consequently should not be used if other more appropriate definitions are already available.

#### Sub-Clause 1.1.1 Contract

In the preparation of the tender documents the Employer or the Employer's personnel will need to identify any further documents (in addition to those already indicated) for eventual inclusion in the Contract Agreement.

#### Sub-Clause 1.1.1.3 Letter of Acceptance

In many jurisdictions the Employer who is a government department or agency may be prohibited by law from entering into a contract by means of a Letter of Acceptance. In such circumstances, to conclude a binding contract will require a complete contract document to be prepared and signed by the Parties.

#### Sub-Clause 1.1.1.6 Drawings

The Employer is required to provide the Drawings of the Works to the Contractor for execution. The Contractor is required to provide his own workshop or working drawings which will provide detail of how he will execute the Works. Unless specifically stated, the Contractor does not have a duty to modify or correct drawings provided by the Employer. Indeed he may be prohibited from doing so by the applicable law and by the terms of the project insurances.

#### Sub-Clause 1.1.1.9 Appendix to Tender

Omissions and errors may occur in the preparation of the Appendix to Tender. The Contractor may identify some of these omissions and errors in the preparation of his Tender, but a detailed check of this document is highly recommended before issuing the same to tenderers.

#### Sub-Clause 1.1.2.4 Engineer

It is intended that the Engineer is named in the Appendix to Tender (for further commentary see Clause 3).

#### Sub-Clause 1.1.2.6 Employer's Personnel

It is to be noted that this term includes the Engineer and his assistants. The use of the term 'Personnel' does not imply that the concerned people are necessarily employees of the Employer.

#### Sub-Clause 1.1.2.9 DAB (Dispute Adjudication Board)

The Employer is required to decide the composition of the DAB within the tender documents, as part of the cost thereof has to be included in the Contractor's tender offer. (It is to be noted that the MDB Harmonised Edition, the 'Pink Book', uses the term 'Dispute Board' [DB], in substitution for 'Dispute Adjudication Board' [DAB].)

#### 1.2 Interpretation

This sub-clause contains legal statements confirming (except where the context requires otherwise)

- (a) words indicating one gender include all genders
- (b) words indicating the singular also include the plural and vice-versa
- (c) 'Agreements' are to be recorded in writing. Verbal agreements made by the Parties should be recorded in writing. A failure to record verbal agreements can cause difficulties at a later stage particularly if there are changes in personnel
- (d) where something is stated to be 'written' or 'in writing' this shall result in a permanent record. Reference may be made to the authorised means of communication identified in Sub-Clause 1.3.

#### 1.3 Communications

In the preparation of the tender documents the Employer is required to identify the authorised means of communication between the Parties.

Sub-paragraph 1.3(a) provides for the following means of communication:

- in writing and delivered by hand. This remains an important means of communication where the Parties are normally in close physical proximity or where the communication is bulky or of a physical nature or where the document is of sufficient value or importance that warrants a personal delivery. The use of a formal mail transmission book is highly recommended
- by electronic transmission using any of the agreed systems of electronic transmission. In particular if e-mail communications are not permitted or are restricted, this needs to be clarified.

Both Parties should ensure that only authorised staff members are allowed to formally communicate and that the other Party is informed in writing of the limitations of any delegated authority.

#### 1.4 Law and Language

The Employer is required to define both the applicable law and the language of communication in the Appendix to Tender. Invariably the applicable law will be that of the country where the contract is to be executed. For all contracts, where the Employer is a state organisation or other public body, the use of local law is likely to be mandatory.

Exceptionally and particularly, where both the Employer and the Contractor are non-resident in the country of execution and where the commercial laws of the country of execution are not well developed, the Parties may elect to specify the use of the laws of a more developed country.

Where the Employer is a state organisation or other public body, the Employer is likely to require that all communications from the Engineer or the

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Contractor are provided in the official language of the country of execution. It has become a standard practice for the Engineer and the Contractor, when writing to the Employer in the official language of the country of execution, to also provide a simultaneous translation into the language of the Contract.

#### 1.5 Priority of Documents

A listing of standard documents and their priorities is given in the Conditions of Contract. The Employer has the responsibility to ensure that this model listing is suitably upgraded in the final Contract document to reflect the titles and content of the actual documents included in the tender package together with any relevant documentation provided by the Contractor with his tender offer.

Further, the conclusions of any post-tender negotiations between the Employer and the prospective Contractor need to be formally agreed and included in the Contract as a separate document of the highest priority.

#### 1.6 Contract Agreement

The standard FIDIC Conditions of Contract provides that a Letter of Agreement shall be provided by the Employer and within a period of 28 days a Contract Agreement shall be drawn up and finalised between the Parties. The Employer is responsible for all taxes and other charges which may arise in the preparation of the Contract Agreement. If a Letter of Agreement is not required, the time interval between tender date and the date of signing a Contract Agreement is to be stated in the Instructions to Tenderers.

#### 1.7 Assignment

Neither Party (Employer or Contractor) is permitted to assign or transfer the whole or any part of the Contract without the prior agreement of the other Party.

Should the Employer receive a request for assignment from the Contractor, legal advice should be sought particularly with reference to key contract documents such as the Performance Security, Advance Payment Guarantees, and Insurances.

#### 1.8 Care and Supply of Documents

The Employer (not the Engineer) is required to provide to the Contractor two copies of the Contract which typically includes all those documents (including Drawings) which are identified in Sub-Clause 1.5. In addition two copies of any subsequent drawings are to be provided by the Employer to the Contractor. Since these subsequent drawings are most likely to be produced

by the Engineer, the Employer may also delegate responsibility for their distribution to the Engineer.

This sub-clause makes no mention of the need for Drawings to be provided in a reproducible format which would not only facilitate general distribution, but would also be of considerable benefit in the anticipated eventual preparation of so-called 'as-built' drawings.

The Contractor is required to provide to the Engineer (not the Employer) six copies of each of the Contractor's Documents. The Contractor's Documents would importantly include submittals requiring the Engineer's consent. The Contractor should seek clarification from the Engineer if a full submittal of all six copies is required at the submittal for approval stage. It is possible that only a full submittal is required once the documents are approved.

It may be mutually convenient if documentation, particularly drawings, can be passed electronically between the Parties. This should be discussed between the Parties at the earliest opportunity, as this would for example facilitate the production of 'as-built' drawings.

#### 1.9 Delayed Drawings and Instructions

Each Party has a general obligation to notify the other Party when it becomes aware of a technical defect or error in the Documents. Each Party has the implied duty of care to the other and the applicable law may also impose this duty.

The sub-clause refers only to the technical defects or errors (and not those of a financial or other nature) the consequences of which may give rise to a Variation to the Contract as described in Sub-Clause 13.1.

The Contractor is required to give reasonable notice to the Engineer if there are likely to be delays or disruption caused by a late supply of drawings or instructions. The notice shall give details of the requested drawings or instructions, when it is required and the likely consequences if the drawing or instructions are delayed. Should the Works be delayed, then the Contractor, having given notice in accordance with Sub-Clause 20.1, shall be entitled to an extension of time and to payment of Cost plus profit.

#### 1.10 Employer's Use of the Contractor's Documents

The Contractor retains intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.

At the signing of the Contract the Contractor is deemed to have given the Employer a non-terminable transferable non-exclusive royalty free licence to copy, use or communicate the Contractor's Documents including making and using modifications of them.

The licence applies throughout the normal working life of the relevant part of the Works and entitles any person in possession of the relevant part of the Works to use the Contractor's Documents to complete, operate, adjust, repair, etc., the Works.

The Employer is entitled to use computer programs and other software supplied by the Contractor under the Contract, but is not entitled to use such information for similar works.

The FIDIC Contracts Guide gives a reminder that the term 'Contractor's Documents' refers to documents which the Contractor was required to supply under the terms of the Contract and not to other documents which may have been supplied by the Contractor. Any permission given by the Contractor is to be given in writing.

#### 1.11 Contractor's Use of Employer's Documents

This sub-clause is effectively a mirror image of Sub-Clause 1.10.

The Employer retains the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) the Employer, which would encompass drawings provided by the Engineer.

The Contractor is permitted to copy and use these documents at his own cost, but is not permitted to communicate the same to third parties except as necessary for the purposes of the Contract. Consequently a Contractor is permitted to provide copies of these documents to suppliers and subcontractors, but not for example to the media for publicity purposes.

#### 1.12 Confidential Details

The Contractor is required 'to disclose all such confidential and other information as the Engineer may reasonably require in order to verify the Contractor's compliance with the Contract'.

The FIDIC Contracts Guide explains that 'although the Employer might like to have details of Plant and other parts of the Works to be supplied to him, Contractors and Subcontractors will wish to keep confidential certain processes which they regard as trade secrets'.

#### 1.13 Compliance with Statutes, Regulations and Laws

Although the Contractor, in performing the Works, is required to comply with applicable law, certain duties are placed on the Employer.

- The Employer has the duty to obtain the planning and similar permissions for the Permanent Works. Major projects may require special legislation and cross border arrangements with neighbouring countries. The Employer indemnifies the Contractor in respect of any failure by him to obtain these permissions. The Contractor is required to comply with the applicable law.
- The Contractor, not the Employer, is required to give all notices, pay all taxes, duties and fees and obtain all permits, licences and approvals, as

required by the applicable laws relating to the execution of the Contract. It will be noted that the term 'Law' is a defined term (Sub-Clause 1.1.6.5) and in addition to national or state statutes and laws also includes regulations and by-laws of any legally constituted public authority.

Any exceptions to these general obligations of the Contractor can be specified and included in the Particular Conditions of Contract. In some instances there may be advantages to the Employer if he were to arrange and pay for key services to the Site in advance of the Contractor starting work. A prime example would be the supply of electrical power and/or water to a location close to the Site.

#### 1.14 Joint and Several Liability

In order to limit individual risk and to share resources and expertise, it is a common practice, particularly for larger complex projects, for the Contractor to consist of two or more companies who have jointly tendered as a joint venture (or a consortium or other unincorporated grouping).

The Instructions to Tenderers, in authorising tenders from joint ventures, will have specified in detail the terms and conditions governing the acceptability of these joint ventures.

The Instructions to Tenderers will contain a reference to this Sub-Clause 1.14. Thus, although the acceptability of a joint venture will have been dealt with in detail as part of the tender process, this sub-clause serves to define the crucial legal status of the joint venture executing the Contract:

- All participants in the joint venture are deemed to be jointly and severally liable to the Employer for the performance of the Contract.
- The business of the joint venture will likely be conducted by a committee who will nominate a leader authorised to formally represent them in dealings with the Employer.
- The Contractor (joint venture) is not allowed to alter its composition without the prior consent of the Employer. Changes may be inevitable if a member of the joint venture is unable to continue. In such cases the remaining partners are obliged to accept responsibility for the share of the failing party. Either the remaining joint-venturers will agree a re-arrangement of their respective shareholdings or will seek a replacement partner. Any changes require the consent of the Employer.

#### Clause 2 The Employer

#### 2.1 Right of Access to the Site

The Employer has the primary obligation to provide the Contractor with access to the Site and possession thereof within the time(s) stated in the Appendix to Tender.

If it is the Employer's intention that the Contractor is not to be given exclusive access to and possession of the Site, then any restrictions and limitations have to be stated in the tender documents in order to allow contractors an opportunity to make due allowance in their tender offers. Any restrictions introduced after the signing of the contract are likely to meet with an adverse reaction from the Contractor.

Should the Employer's overall project planning necessitate that the Site and access thereto be shared between two or more contractors (or the Employer's own organisation for non- contractual purposes), then the Employer will need to decide which party will operate common services, including security and maintenance of the access to the Site.

As part of the handover process it is recommended that the Site and access thereto be formally inspected by the Employer, the Contractor and – if available – the Engineer. The condition of the Site and access should be formally recorded (a video record would be beneficial). Not uncommonly, unattended sites are frequently used as illegal dump sites by others. The cost of removal of such illegal material would be to the Employer's expense if the material was dumped after the date of tender and prior to handover of the Site to the Contractor.

On inspection the Site and access may be further obstructed by buildings or other structures which cannot be cleared due to a lack of requisition or other legal prevention. Should limited obstructions be noted during the inspection, the Employer and the Contractor have the possibility to agree for the Works to commence with the obstruction to be removed by an agreed later date. This solution should prove less costly and minimise delays compared with the alternative of delaying commencement.

If no time for handover is given in the Appendix to Tender, then the Employer is required to make the necessary handovers to correspond with the Contractor's programme submitted under Sub-Clause 8.3. This alternative procedure is not without its hazards, as the Contractor may take some time to prepare the programme (Sub-Clause 8.3 allows the Contractor up to 28 days to prepare and submit the programme). As a consequence, the precise date for handover of the Site can become imprecise and may lead to unforeseen delays.

Experienced contractors will as a matter of course mobilise as quickly as possible and use the initial stages of a contract to set up their site establishment, including the setting up of offices, etc., the bringing to site of the plant, setting out and site clearance, all of which can take place with limited resources and minimal supervision.

It is a regrettable fact that a disproportionate number of delays and claims arise in the opening stages of many projects as a direct consequence of