WILLIAM GODWIN QC

# THE 2017 FIDIC CONTRACTS

WILEY Blackwell

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*The Second Editions of the Red, Yellow and Silver Books*

*William Godwin QC*
Member of the FIDIC 2017 Updates Task Group

WILEY Blackwell

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# Foreword

Since their publication in 1999 the three FIDIC contract forms or, as also aptly named, Books, have become not just well known and respected in international infrastructure contracting in all its many guises, but a major force for international cooperation and understanding. To those who have seen the free-for-all that can result from the absence of accepted norms in infrastructure procurement, FIDIC is a lifeline, more successful in its quiet deliberations than other over-politicised international bodies but exercising a major and largely unseen influence over the well-being of international projects which can lead less developed nations towards prosperity or financial ruin. Given the now truly global reach of FIDIC it remains a matter of national pride that the body was founded and modelled on UK practices, that the official and authentic texts remain the versions in the English language and that the now multifarious committees and other bodies of FIDIC retain many of its UK representatives and experts. These include the author of this work who has been closely involved with the new task group charged with writing the second editions of these three major FIDIC publications, still known as the Red, Yellow and Silver Books.

However well regarded, there inevitably comes a time for review and updating to take account of more recent developments in contracting and to build on the substantial experience gained from use of the forms over the intervening years. While the author is a specialist construction lawyer with wide experience of legal issues generated by the forms, the drafting and review bodies also have the inestimable advantage of including many distinguished specialists in other areas covered by the forms, from engineering and management to insurance and finance, and with access to FIDIC experts and commentators from many different jurisdictions and regions. The forms therefore remain a major international and cross-disciplinary statement of good and accepted practice in this economically vital field.

The new Books will inevitably be the subject of renewed commentary and analysis, particularly in the light of issues and disputes which will arise in as yet unpredictable circumstances. It is notable that the books are now some 50% longer and thus cover in considerably greater detail many provisions, from the extended definitions section to enhanced notice provisions. Whether they will be regarded as over prescriptive and complex remains to be seen but, as pointed out in the introduction to the book, the forms must be usable to parties and individuals whose first language in not English. Thus one of the main aims of the new editions has been to increase clarity and certainty. Another aim has been to promote improved project management and dispute avoidance, important objectives which necessarily result in greater complexity.

This book provides, with the benefit of the author's unrivalled experience, a clear overview and comprehensive guide to each of the 2017 FIDIC Books. For the detailed contract provisions the forms themselves must be read along with the commentary which shows how each Book compares and relates to the others as well as pointing out changes from earlier editions including the 2008 Gold Book, the FIDIC Design-Build-Operate form. The book achieves all this with remarkable concision, being somewhat shorter than the three forms themselves and well illustrated with authorities on the earlier editions. No doubt the new forms will generate fresh rounds of court decisions and commentaries but the FIDIC Books will remain at the core of the international infrastructure industry which will continue to benefit from its accumulated experience and guidance.

*Professor John Uff CBE QC*

# Preface

In early 2016 FIDIC asked me if I would be willing to join a new task group to write the second editions of the Red, Yellow and Silver Books. Since the first editions of the three Books were published in 1999 they have become the most widely used engineering standard form contracts internationally, and among the best regarded. It was felt nevertheless that the Books needed to be reviewed and updated to take account of developments in contracting since 1999 and to build on the substantial experience gained from use of the forms over the years. Much work had already been done by the FIDIC Contracts Committee and an earlier task group, but it remained to write the new editions with a view to publication in 2017. As a specialist lawyer I welcomed the opportunity to contribute to the writing of the new contracts and felt honoured to have been asked.

I could not have been in better company. My colleagues on the task group were all highly experienced engineers and FIDIC experts: they were Simon Worley, who became our group leader, Siobhan Fahey, Contracts Committee liaison, John Greenhalgh, Leo Grutters, Aisha Nadar and, assisting throughout as secretary to the group, Shelley Adams. I would like to pay tribute to them all. I would also like to acknowledge with gratitude the close involvement throughout of William Howard, president-elect of FIDIC and the Executive Committee's primary liaison, and Zoltan Zahonyi, chair of the Contracts Committee.

Our task group reported to the Contracts Committee and we carried out our work under its general direction. At the London Users' Conference in December 2016 a pre-release version of the Yellow Book was circulated and received extensive comment. This was carefully considered in preparing the eventual second editions of the three Books, along with comments and suggestions received as part of a wider consultation or friendly review by a long list of interested persons and organisations. Each of the Books was subject to a legal review before approval by the Executive Committee prior to eventual publication in December 2017.

The reaction to the new Books has been broadly positive, although they have been said to be too prescriptive and complex. To some extent this criticism was inevitable. One of the main aims of the new editions was to increase clarity and certainty so that the parties and the Engineer or Employer's Representative know exactly what is expected of them and when; another was improved project management and dispute avoidance. Fulfilling these aims was always likely to result in more prescription and complexity, but whether the right balance has been struck will be for users of the contracts to decide.

An important development since publication of the new forms has been the adoption by the World Bank of the 2017 contracts, with complementary special provisions. At

the London Users' Conference in December 2018, one year after the new Books were rolled out, the World Bank revealed its intention to move away from using the Multilateral Development Banks version of the Red Book (the 'Pink Book') in favour of the 2017 Red Book with special provisions to cover areas of particular concern, such as the environment and social and anti-corruption matters; the Bank indicated it would do likewise with the 2017 Yellow Book. Subsequently in early 2019 the Bank entered into a licence agreement with FIDIC permitting it to use the 2017 suite with its own conditions of particular application. FIDIC expects to enter into similar agreements with other development banks.

The aim of this book is to provide a clear and comprehensive guide to each of the 2017 FIDIC Books. After providing an overview the contracts will be examined clause by clause with the aim of showing how each Book compares and contrasts with the others and how the second editions compare and contrast with the first editions. Understanding the new contracts depends on seeing how they have developed from the first editions as well as how they relate to each other. There are also important points of intersection with the 2008 Gold Book, the FIDIC Design-Build-Operate form.

The first chapter seeks to put the three Books in context by indicating the extent to which they evolved from earlier forms and the distinctive characteristics of each, before providing an overview of the updates, including new potential risks for both Employer and Contractor, and then going on to consider, in the second chapter, key general provisions such as the new rules on notices and limitation of liability. Chapter 3 examines the enhanced role of the Engineer in the Red and Yellow Books/Employer's Representative's function in the Silver including the new procedure for determinations as well as the Employer's obligations and contract administration. The Contractor's obligations are considered in Chapter 4 while Chapter 5 examines his responsibility for design in the Yellow and Silver Books. Chapters 6 to 14 deal respectively with plant, materials and workmanship and staff and labour; time-related provisions in the three contracts including extensions of time, and the Employer's right to suspend the works; testing on and after completion and the Employer's taking over of the works; defects after taking over, acceptance of the works and unfulfilled obligations; measurement (in the Red Book), the Contract Price and payment; the new variations regime and adjustments to the Price; termination and suspension; care of the works and indemnities and Exceptional Events (previously, Force Majeure). An important feature of the new contracts is their increased emphasis on clarity in the claims process and on dispute avoidance. These topics are examined in the final two chapters, 15 and 16, which deal respectively with the new claims and dispute resolution provisions of the 2017 forms.

I would like finally to express my thanks and appreciation to Dr Paul Sayer at Wiley Blackwell for his encouragement and support, and to Dr Peter Boswell, who so encouraged my involvement with FIDIC and interest in the contracts.

## About the Author

William Godwin QC was legal member of the FIDIC Updates Task Group responsible for drafting the 2017 (second) editions of the Red, Yellow and Silver Books. A specialist barrister whose work often involves cross-border projects, he has extensive experience of acting as counsel in international arbitrations and sits as an arbitrator and adjudicator. He writes and speaks regularly on FIDIC contracts, construction law and arbitration and is the author of *International Construction Contracts: A Handbook* (Wiley Blackwell 2013).

# 1

# Overview of the 2017 Contracts

## 1.1 Introduction

The second editions of the three main FIDIC construction contracts were formally introduced at the London users' conference in December 2017. The new Red, Yellow and Silver Books had long been anticipated and represented the first update to the three main forms since 1999.

A key aim of the new contracts was to increase clarity and certainty. Users will find several new definitions, which are now in alphabetical order (clause 1.1). 'Claim', 'Dispute', 'Notice' and 'Programme', for example, are now defined terms; 'may', 'shall' and 'consent' are also defined, with the particular aim of assisting those whose first language is not English. 'Particular Conditions' is now defined to comprise Part A – Contract Data and Part B – Special provisions. 'Plus reasonable profit', as used in the 1999 Contracts, often caused difficulty. A new definition, 'Cost Plus Profit', now applies, and refers to a percentage for Contractor's profit to be stated in the Contract Data, or in default 5%.

One important procedural change concerns notices in the 2017 contracts. By a new clause 1.3 a notice must be in writing and identify itself as such, among other requirements. Notices are now required in many more situations than previously and, when given, trigger time limits. For example, under a new clause 3.5 in the Yellow and Red Books, or clause 3.4 in the Silver Book, if the Contractor considers that an instruction not stated to be a variation does in fact amount to one he must immediately, and before commencing any related work, give a notice to that effect with reasons. If the Engineer (Red and Yellow Books) or Employer (Silver Book) does not respond to this notice within a defined period by giving another notice confirming, reversing or varying the instruction he will be deemed to have revoked it.

The contract administrator's role in agreeing or determining any claim or other matter under the Contract is also set out in more detail than in the 1999 Books, and in a step-by-step fashion with time limits. Clause 3.7 of the 2017 Yellow and Red Books, for example, requires the Engineer first to consult the parties to try to reach agreement; if no agreement is reached within 42 days, or the parties give 'early notice' of no agreement, the Engineer must give a notice accordingly and within 42 days (or other agreed time limit) must make a determination. If the Engineer is late then, in the case of a claim,

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he is deemed to have rejected the claim and for any other matter a dispute is deemed to have arisen which may be referred to the renamed Dispute Avoidance/Adjudication Board (DAAB) for its decision. Similar provisions apply in clause 3.5 of the 2017 Silver Book.

Another key aim in preparing the second editions was to improve project management and reflect international best practice. New procedures designed to promote this aim include requiring the Contractor to prepare and implement a Quality Management System to show compliance with the Contract requirements (clause 4.9.1) and a Compliance Verification System to show that the design, materials, workmanship and certain other matters all comply (clause 4.9.2). There is in general much greater emphasis on dispute avoidance, including an enhanced role for the DAAB in this respect, and promoting cooperation between the parties during the project.

## 1.2 The Rainbow Suite: The Main Features of the 1999 Red, Yellow and Silver Books

### 1.2.1 The 1999 Red Book

The origins of the 1999 Red Book go back to 1957, when a first edition based on the English civil engineering 'ACE' (Association of Consulting Engineers) form was introduced. The ACE form was in turn an international version of the UK Institution of Civil Engineers (ICE) form, fourth edition, the main UK domestic engineering contract of the time.

The Red Book's UK origins are not just of historical interest since important features of the form, and indeed of all three 1999 Books, are attributable to them. Expressions such as 'fitness for purpose' and 'consequential loss', for example, are common law expressions used in the three Books. More generally, the 1999 contracts are drafted in English. In the notes to the 1999 and 2017 editions the English language versions are stated to be the official and authentic texts.

The Red Book underwent several changes since its introduction in 1957, culminating in the very widely used 1987 fourth edition. It was this edition to which the FIDIC task group mainly had regard when preparing the 1999 edition of the Red Book, which we know as the 'first edition'; 1999 was a watershed year for FIDIC, when the three main forms constituting the 'rainbow suite' were simultaneously issued. Each of the 1999 contracts had the same simplified 20-clause format, with many of the same topics dealt with by clauses with the same numbering. These features, which all had in common, led to their designation as 'first editions': they were the first editions of a new, fundamentally overhauled and restructured suite of contracts.

- *Employer design*

The main distinguishing feature of the 1999 Red Book is that the Employer is responsible for all or most of the design of the works. The title of the 1999 edition (and the 2017) is *Conditions of Contract for Construction, for Building and Engineering Works designed by the Employe*r. That is not to say the Contractor is never responsible for any design, but the form is intended for use where the Employer or those acting on his behalf are responsible for all or most of the design. The Contractor's basic responsibility under the

Red Book forms is to execute the works in accordance with designs prepared by or on behalf of the Employer.

- *Re-measurement*

The second main distinguishing feature of the 1999 Red Book is that it is a re-measurement contract. The Contractor's entitlement is to be paid in accordance with the quantity of work he executes under the Contract applying the relevant rates, typically stated in the bills of quantities. This is by contrast with the other two members of the rainbow suite, the Yellow and Silver Books, where the Contractor's basic entitlement is to be paid a fixed price lump sum subject to adjustments or additions for such things as variations.

- *The Engineer*

The third feature of the Red Book, which it shares with the Yellow Book, is that an important role is assigned to the Engineer. Under both Books in both the 1999 and 2017 editions the Employer is obliged to appoint an Engineer to administer the Contract. The Engineer is not a party to the Contract, but he exercises a range of important functions which control the project and affect the rights of the two parties, the Employer and Contractor. Broadly speaking, those functions involve administering the Contract, by for example certifying interim payments due to the Contractor, and determining certain matters affecting the parties' entitlements under the Contract, such as the Contractor's entitlement to an extension of time or an additional payment.

This latter adjudicative function in particular highlights the dual role Engineers perform of being at once the agents of the Employer for various purposes and determiners of the parties' entitlements. Engineers' decisions about such matters as extensions of time or additional payments are not in general final under the FIDIC forms, although, as we shall see, if time limits are breached an Engineer's determination might become final; but the importance of ensuring that as far as possible the Engineer, in making his determinations, should do so in a disinterested and fair way as between the parties has led to express provision in both the 1999 and 2017 editions of the Red and Yellow forms for the Engineer to act fairly, in accordance with the Contract and taking into account all relevant circumstances (clause 3.5/1999 and 3.7/2017) with, in the 2017 editions of the two Books, the express additional requirement that the Engineer should act neutrally between the parties and not be deemed to act for the Employer (clause 3.7 of the 2017 editions). The 2017 editions also provide (clause 3.2) that there should be no requirement for the Engineer to obtain the Employer's consent before exercising his authority under clause 3.7.

The role of the Engineer in the 2017 editions of the Red and Yellow Books is another legacy of the UK origins of the FIDIC forms. The UK domestic engineering forms historically assigned an important role to the Engineer, broadly in line with the role adopted by the Engineer in the FIDIC Books; and historically the Engineer was treated as a professional person to be accorded great respect, and who was expected by both parties to act neutrally and fairly in carrying out all his functions. This traditional status of the Engineer has for some time been eroded, and in many cases in projects internationally he has come to be regarded as no more than the mouthpiece of the Employer. For that reason the 2017 editions have sought to reinforce the expected neutrality of the Engineer by the new provisions in clauses 3.2 and 3.7.

- *Risk allocation*

The fourth feature of the 1999 Red Book, which it also shares with the 1999 Yellow Book, is that the allocation of risk between Contractor and Employer is intended to be an even handed or fair one, having regard to each party's ability to manage and control risk. Thus, for example, under clause 4.12 of both Books the Contractor may claim both additional time and money if he encounters physical conditions which were unforeseeable in the sense that they were not reasonably foreseeable by an experienced contractor at the date of tender, or the Base Date[1] in the 2017 editions.[2] The Contract allocates risk by striking a balance between the need to protect the Employer from the time and cost consequences of physical conditions which an experienced Contractor ought to have foreseen, and the need to protect responsible contractors from the time and cost consequences of conditions which they cannot reasonably have been expected to foresee at tender stage.

The reputation which FIDIC has traditionally enjoyed of fairly allocating risk between the parties largely derives from this approach, reflected not merely in the 1999 edition of the Red Book but in its predecessors and in the Yellow Book (to which we turn below) and its forebears; and the same can be said of the 2017 editions of the two Books.

The scope for claims under the Red and Yellow Books in both editions is considerable by comparison with the third member of the 1999 rainbow suite, the Silver Book, considered in Section 1.2.3 below.

### 1.2.2 The 1999 Yellow Book

The Yellow Book is the second oldest member of the 1999 FIDIC suite of contracts. Its origins go back to an electrical and mechanical form of contract, the Electrical and Mechanical Yellow Book, first published in 1963. In contracts for electrical and mechanical works much of the design is carried out off-site and installation carried out by specialist contractors. In this type of contract it makes more sense for the contractor rather than the employer to be primarily responsible for design. The 1963 Yellow Book was therefore a contractor-design form of contract under which the Contractor and not the Employer was responsible for all or most of the design.

The Yellow Book underwent various editions, culminating in the third edition in 1987, the same year as the fourth edition of the FIDIC Red Book. When preparing the 1999 Yellow Book the task group mainly had regard to the 1987 version of the Yellow Book, and also to another form, first published in 1995, called *Conditions of Contract for Design-Build and Turnkey*; this was known as the Orange Book.

The Orange Book was introduced to accommodate the growing trend for projects to be procured on a design-build or 'turnkey' basis. Its scope was wider than the 1987 Yellow Book because it was not a specifically electrical and mechanical form of contract. Among the distinctive features of the Orange Book was a departure from the use of the Engineer. In the Orange Book there was no Engineer but the Employer administered the Contract. He was not intended to be neutral although when making determinations had

1 The Base Date is defined in clause 1 of both editions of all three Books as 28 days before the latest date for submission of the tender.

2 'Unforeseeable' is defined in clause 1 of the three 2017 Books to mean 'not reasonably foreseeable by an experienced contractor by the Base Date'.

still to act fairly, reasonably and in accordance with the Contract. A second significant feature of the Orange Book was that it introduced an independent dispute adjudication board, called the DAB, considered below in Chapter 16.

The 1999 Yellow Book replaced both the Yellow Book 1987 and the 1995 Orange Book. Whereas the 1987 Yellow Book dealt only with electrical and mechanical works, the 1999 Yellow Book covered any building and engineering works designed by the Contractor, reflecting the wider scope of the Orange Book.

- *Contractor design*

The first feature to note about the 1999 Yellow Book, distinguishing it from the Red, is, therefore, that it is a contractor-design form of contract; under the form, the Contractor is responsible for all or most of the design.

This is also the case with the 2017 edition, the title of both editions being the same: *Conditions of Contract for Plant and Design-Build, for Mechanical and Electrical Plant and for Building and Engineering works designed by the Contractor*.

- *Fixed price lump sum*

The second important feature of both editions of the Yellow Book, which also distinguishes it from the Red Book forms, is that it is a fixed price lump sum rather than a re-measurement contract. The Contractor's basic entitlement is to be paid a fixed price, stated in the Contract at the outset and expressed as a lump sum, subject only to adjustments or additions made pursuant to the terms of the Contract for such matters as variations or unforeseeable physical conditions.

- *The Engineer*

The third main feature of the Yellow Book in both editions is that, like the Red Book forms, an important role is assigned to the Engineer, who performs the same functions under both Books and in the 2017 edition must also act neutrally.

- *Risk allocation*

The fourth feature of the Yellow Book in both editions is that, also like the Red Book forms, it seeks to strike a fair balance of risk between Contractor and Employer. Many of the circumstances in which the Contractor can claim in the Red Book (for example, where unforeseeable physical difficulties are encountered) are also circumstances in which he can claim in the Yellow Book.

### 1.2.3 The 1999 Silver Book

Unlike the other two Books in the rainbow suite, the Silver Book 1999 was a completely new form of contract. It was introduced to meet a perceived market need for a form of contract which would give project sponsors maximum certainty as to time and budget. This need was particularly evident in Build-Operate-Transfer and other concession-type projects, in which the project financing placed huge constraints on sponsors to ensure that the project was completed on time and within budget. The fair or even-handed allocation of risk characteristic of the Yellow and Red Books was wholly unsuited to such projects. What the sponsors required was a contract form under which the contractor carried virtually all the risk and had very limited opportunities to claim.

FIDIC noted a trend for sponsors to cause the general conditions of typically a Yellow Book form to be amended to try to place as much risk as possible on the Contractor, quite often with disastrous results. To avoid this tendency, and to meet head on the demand for a new form, FIDIC introduced the Silver Book in 1999. It can be used not merely in concession-type projects but in any case where the project sponsors require maximum certainty about time and budget.

The title of the Silver Book in both editions is *Conditions of Contract for EPC/Turnkey Projects*. 'EPC' stands for Engineer-Procure-Construct, and indicates the range of the Contractor's responsibilities under the Contract; the Contractor is responsible for engineering design, the full range of procurement and for construction. The Contractor designs to Employer's Requirements, which in some cases amount to little more than a performance specification although they may contain considerable engineering design.

The word 'Turnkey' is used synonymously with 'EPC' in the title of the Silver Book forms to signify that the Contractor is to provide the Employer with a complete package, so that he has the plant or other facility 'at the turn of a key'. The Employer thus has a single point of responsibility for design, procurement and construction.

The project sponsors are provided with much greater certainty about time and cost than would be available under a Yellow Book Contract; under the form, the Contractor agrees a lump sum fixed price and has very limited scope for claiming additional time or money. The Contractor is forced correspondingly to price for risk, and therefore a Silver Book Contract can result in considerably higher project costs for the sponsors. Silver Book contracting has sometimes been called a Rolls Royce method of procurement for that reason.

FIDIC itself counsels caution when contractors are invited to tender on the basis of a Silver Book form. The guidance is to the effect that contractors ought not to contemplate contracting on such a basis unless they have had an opportunity to assess all relevant risks; something which it is difficult in practice to achieve when the tender period and available resources are limited. What often happens in practice, although this will depend on the individual contractor's bargaining power, is that the parties will negotiate exceptions to the contractor's otherwise comprehensive responsibility and, for example, identify particular items of design or information for which the contractor will not be responsible or carry the risk. Even when such exceptions might be carved out, a responsible contractor will need to exercise extreme care before deciding to contract on a Silver Book basis and will almost always have to build into the price a significant cushion against remaining risk.

There is no Engineer in the Silver Book forms, the Employer in the 1999 edition being able to administer the Contract himself, although typically he will appoint an Employer's Representative to do so on his behalf. Whether or not such a representative is appointed, any determinations made must in the 1999 Silver Book be fair, in accordance with the Contract and take account of all relevant circumstances.

In the 2017 edition of the Silver Book the Employer is obliged to appoint an Employer's Representative and so cannot administer the Contract himself. As with the 1999 edition, determinations must be fair, in accordance of the Contract and take account of all relevant circumstances (clause 3.5). In the 2017 edition there is an added requirement (also in clause 3.5) that in carrying out his determining functions the Employer's Representative shall not be deemed to act for the Employer; unlike the 2017 Yellow and Red Books, however, he is not expected to act neutrally, although whether in practice this

will make much difference is not entirely clear since in all three Books in both editions determinations have to be fair, in accordance with the Contract and take account of all relevant circumstances.

A significant difference exists between the 1999 Silver Book on the one hand, and its 2017 version and both editions of the Yellow and Red Books on the other, as to the effect of a determination. In the 1999 Silver Book, each party must give effect to a determination unless the Contractor gives notice of his dissatisfaction with the determination within 14 days; he may then refer the matter to a DAB under clause 20.4. In both editions of the Yellow and Red Books, on the other hand, the parties are to give effect to the determination unless and until it is revised by a DAB/DAAB or, ultimately, arbitral tribunal. That difference could favour the Contractor in some situations where, for example, the Employer is entitled to a payment, as the Contractor can hold off paying by notifying his dissatisfaction with the determination within the 14 days. In the 2017 Silver Book, where the Employer is no longer permitted to administer the Contract himself, the position has been changed to bring it into line with the other forms, so that both parties have to give effect to a determination unless and until it is revised by a DAAB (or ultimately an arbitral tribunal).

## 1.3 Contractor Risk in the Silver Book: Two Examples

The following two examples may serve to illustrate how the Silver Book stands out from the other two FIDIC forms.

### 1.3.1 Unforeseeable Difficulties

Clause 4.12 of the Silver Book in both editions provides that, unless the Contract (or, in the 2017 edition, the Particular Conditions) states otherwise, the Contractor (a) is to be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the works; (b) by signing the Contract he accepts 'total responsibility' for having foreseen all difficulties and costs of successfully completing the works; and (c) the Contract Price is not to be adjusted to take account of any unforeseen difficulties or costs.

This comprehensive allocation of risk contrasts with clause 4.12.4 of the Yellow and Red Books in both editions, where the Contractor may, subject to complying with the relevant notice and other requirements in clauses 4.12.1 to 4.12.3, claim both additional time and money if he encounters physical conditions which were unforeseeable in the sense that they were not reasonably foreseeable by an experienced contractor at the date of tender (1999) or the Base Date (2017).

### 1.3.2 Errors in Employer's Requirements

The 1999 Yellow and Silver Books impose on the Contractor the obligation to design, execute and complete the works in accordance with the Contract so that when complete the works will be fit for the purposes for which they are intended 'as defined in the Contract' (clause 4.1). This is similar in the 2017 editions, except that the works when completed are to be fit for the purpose or purposes for which they are intended 'as defined or described in the Employer's Requirements' or, where no such purposes are defined or described, fit for their 'ordinary purposes'.

Thus the fitness for purpose obligation in the 2017 editions is anchored, not in the Contract generally, but in the Employer's Requirements or, in default, in the 'ordinary purposes' of the relevant works. These important distinctions are examined in Section 4.1 below.[3]

The extent to which the Contractor has to accept responsibility for errors in the Employer's Requirements, including any design criteria and calculations, is markedly different between the two forms.

In both editions of the Silver Book the Contractor is responsible for errors in the Employer's Requirements even if the Contractor could not reasonably have been expected to detect them, with certain limited exceptions. Clause 5.1 in both editions provides that the Contractor is assumed to have scrutinised, prior to the Base Date, the Employer's Requirements (including design criteria and calculations, if any) and the Employer is not to be responsible for any error, inaccuracy or omission of any kind in the Employer's Requirements as originally included in the Contract, unless one of the exceptions set out in sub-paragraphs (a)–(d) of clause 5.1 applies. These exceptions are examined in Section 5.1.1 below.

The Yellow Book deals with errors in the Employer's Requirements quite differently. The Contractor is entitled to claim additional time and/or cost plus profit if a hypothetical experienced and careful contractor would not have discovered the error by a certain date.

Thus clause 1.9 of the 1999 edition entitles the Contractor to claim if delay and extra cost result from an error in the Employer's Requirements which an experienced contractor exercising due care would not have discovered when scrutinising the Requirements under clause 5.1. Although more detailed and differently structured, clause 1.9 in the 2017 edition applies a substantially similar test to determine the Contractor's right to claim more time or money in respect of errors contained in the Employer's Requirements.[4]

## 1.4 New Potential Risks for Contractor and Employer in the 2017 Books

The 2017 Books contain new potential risks for both Contractor and Employer, some of which are highlighted below. They are considered in more detail in the chapters indicated.

### 1.4.1 Contractor Risks

- *New fitness for purpose indemnity*

In the 2017 Yellow and Silver Books clause 17.4 creates a new indemnity by the Contractor in respect of any acts, errors or omissions by him in carrying out his design obligations which result in the works, when complete, not being fit for their purpose

3 In the 1999 Red Book (clause 4.1), where the Contractor is, under the Contract, to design any part of the works then that part when completed must be fit for such purposes as those for which the part is intended as specified in the Contract. In the 2017 edition, the purposes are to be as specified in the Contract or, where they are not so defined and described, their ordinary purposes.

4 See Section 5.1.4 for a fuller discussion of errors in Employer's Requirements in the Yellow Book.

under clause 4.1.[5] In the 2017 Red Book this applies to the extent that the Contractor has the relevant design obligations.

In the pre-release Yellow Book this indemnity was not within the exclusion of indirect or consequential loss or the overall liability cap under clause 17.6. However, following strong objections from contractors during the friendly review, this position has been reversed in the published 2017 Books. By a new clause 1.15 (Red and Yellow Books)/1.14 (Silver) the indemnity is now within both the exclusion and the cap.[6]

- *Exceptions to liability limitation*

The new clause 1.15/1.14 in the three 2017 Books does not include within the exclusion of indirect or consequential loss intellectual and industrial property rights under clause 17.3, or delay damages under clause 8.8, and the former is excluded from the total liability cap under the second paragraph of that clause.[7] Further, whereas in the 1999 editions clause 17.6 did not limit liability in any case of fraud, deliberate default or reckless misconduct, the new clause 1.15/1.14 adds gross negligence to this list.[8]

- *Delay damages and termination*

The 1999 editions provide, by clause 8.7, for a maximum amount of delay damages. This is also the case in the 2017 editions, but the 2017 Books give the Employer a new right to terminate the Contract under clause 15.2.1(c) if the Contractor exceeds this limit.[9]

- *Adverse climatic conditions*

Clause 8.4(c) in the 1999 Red and Yellow Books gives the Contractor a right to claim an extension of time in respect of exceptionally adverse climatic conditions, but the meaning of this expression often gave rise to dispute. Clause 8.5(c) in the 2017 editions of the two Books goes some way to providing clarity, but at the expense of limiting the scope of this ground to adverse climatic conditions at the site which are unforeseeable having regard to climatic data made available by the Employer and/or which are published in the relevant country for the geographical location of the site.[10] By thus limiting the conditions to those affecting the site only, the Contracts now exclude claims based on adverse conditions elsewhere which affect the Contractor's ability to maintain progress (by, for example, interfering with supply chains).

- *Cost of remedying defects/training*

Red Book contractors should note that clause 11.2 in the 2017 edition has expanded the scope of the Contractor's responsibility for executing outstanding or remedial works

5 See Section 13.2.1.

6 The 2008 Gold Book had introduced a fitness for purpose indemnity in the second paragraph of clause 17.9. This indemnity, as in the pre-release Yellow Book, is excluded from the general exclusion of indirect or consequential loss in clause 17.8 of the Gold Book; but is within the overall liability cap (second paragraph of clause 17.8). The pre-release Yellow Book thus followed the Gold Book in introducing a Contractor's fitness for purpose indemnity, but went beyond it by excluding the indemnity from both the indirect loss exclusion and the overall liability cap.

7 See Section 2.8.2.

8 See Section 2.8.

9 See Section 12.1.3.

10 See Section 7.6.

under clause 11.2 and a new clause 4.5 introduces a requirement to train the Employer's employees and/or other specified personnel if stated in the Specification.

Although responsible, by clause 4.1(d), for submitting the as-built documents and operation and maintenance manuals prior to commencement of the tests on completion, the 1999 Red Book Contractor has no training obligation and no specific liability in the terms of clause 11.2(c) of the other two Books. (In the 1999 Yellow and Silver Books clause 11.2(c) requires the Contractor to execute at his own risk and cost any works resulting from improper operation or maintenance attributable to matters for which he is responsible under clauses 5.5–5.7 – that is, training (to the extent specified in the Employer's Requirements), provision of as-built documents and operation and maintenance manuals – or otherwise.)

These differences have now been removed in the 2017 Red Book. The Red Book Contractor now has an obligation to provide training for the Employer's employees and/or other specified personnel under clause 4.5 if this is stated in the Specification, and has the same responsibility (under clause 11.2(c)) in respect of improper operation or maintenance attributable to any failure to provide such training, operation and maintenance manuals or as-built records as the Yellow and Silver Book Contractor.[11]

### 1.4.2 Employer Risks

- *Liability for care of the works and indemnities*

Clause 17.3 in the 1999 editions of the three Books defines a number of Employer's risks which, if they eventuate, entitle the Contractor to claim an extension of time and/or cost for rectifying any resulting loss or damage. Clause 17.2 of the 2017 Books adds significantly to the risks borne by the Employer[12] and includes in particular a general sweeping-up provision covering any act or default of the Employer's personnel or the Employer's other contractors.

The Employer's indemnities in favour of the Contractor under clause 17.5 have also been expanded to include, as well as death or personal injury, loss of or damage to any property other than the works which is attributable to any negligence, wilful act or breach of contract by the Employer, Employer's personnel or any of their respective agents. The Employer must also indemnify the Contractor in respect of all loss or damage to property, other than the works, to the extent that it arises out of any of the events for which the Employer bears the risk under clause 17.2.[13]

- *Extensions of time*

In all three of the 2017 Books the Contractor's entitlement to claim an extension of time has been increased.

*(a) Access routes*

The 1999 Books all provide for the Contractor to bear the costs of any non-suitability or non-availability of access routes for the use required by the Contractor without apparent qualification. If an access route were, for example, altered by the Employer

11 See Section 9.2.
12 See Section 13.1.3.
13 See Section 13.2.3.

or those for whom he was responsible, including his other contractors on site, the Contractor might be able to rely on clause 8.4(e) to claim an extension of time if he suffered delay as a result, on the basis that the alteration of the route was a delay, impediment or prevention caused by or attributable to the Employer, his personnel or his other contractors on site; but if the route were altered by a third party the Contractor would not be able to come within this ground and clause 4.15 would not appear to give him any basis for claiming an extension either.

The Contractor's position has been improved by clause 4.15 of the 2017 Books, which provides (in the last paragraph of clause 4.15) that to the extent that non-suitability or non-availability of an access route arises as a result of changes to the access route by a third party, as well as the Employer, after the Base Date and they result in delay and/or cost the Contractor may claim an extension of time and/or payment of that cost. This fills an important gap in the 1999 forms.

*(b) Private utilities*

The Contractor under the 2017 Books is now able to claim an extension of time in respect of delays caused not only by public authorities but also private utilities in the country of the project under a new clause 8.6. In the 1999 contracts clause 8.5 permitted a claim only in respect of delays caused by public authorities. This updates the earlier forms to reflect the fact that many utilities are now provided by private entities and represents a significant addition to the Contractor's right to claim.

*(c) Shortages in Employer-supplied materials*

The Contractor may in all three 2017 Books claim an extension of time in respect of unforeseeable shortages in the availability of Employer-supplied materials, as well as personnel or goods, caused by epidemic or government actions (clauses 8.5(d) 2017 Red and Yellow Books and 8.5(c) Silver). In the 1999 editions of the Red and Yellow Books the Contractor (by clause 8.4(d)) is only able to claim for unforeseeable shortages in personnel or goods caused by epidemic or government actions and in the 1999 Silver Book this ground is not available at all. The 2017 editions have therefore created an entirely new basis of claim for the Silver Book Contractor and increased the scope of the existing sub-paragraph (d) of clause 8.4 in the other two Books by including Employer-supplied materials.

- *Latent defects in plant*

The 1999 contracts provide for defects which become apparent after the Employer's acceptance of the works (by issue of the Performance Certificate) by treating each party as remaining liable for the fulfilment of any unperformed obligations at that time, the Contract to be deemed to remain in force for the purpose of determining the nature and extent of such unperformed obligations (clause 11.10). There is no time limit placed on the extent of this liability; that question depends on the governing law.

The 2017 contracts contain the same provision for latent defects in clause 11.10, but introduce a time limit with respect to plant. In relation to plant, the Contractor is not to be liable for any defects or damage occurring more than two years after expiry of the Defects Notification Period for the plant, unless this is prohibited by law or in any case of fraud, gross negligence, deliberate default or reckless misconduct. Thus, subject to those exceptions, and unless clause 11.10 is amended in the special provisions, the Employer now faces a two-year cut-off for bringing any claims in respect of latent defects in plant,

that is, any apparatus, equipment, machinery or vehicles whether on the site or otherwise allocated to the Contract and intended to form or forming part of the permanent works (clause 1.1.65 2017 Red Book/1.1.66 Yellow Book/1.1.56 Silver Book).

- *Termination for convenience and omitted work*

One of the complaints contractors make about the 1999 Books is that, in the event of the Employer's terminating the Contract for his own convenience, that is, in the absence of any fault on the part of the Contractor, the Contractor is not entitled to any loss of profit suffered as a result. Instead, clause 15.5 gives the Contractor no more than he would be entitled to where there has been a termination by reason of force majeure.

This was thought to be anomalous and the position has been corrected in the 2017 Books. The Employer now faces the prospect of having to compensate the Contractor for loss of profit or other loss or damage suffered as a result of a termination for convenience under a new clause 15.6.[14]

There is also an important provision entitling the Contractor to loss of profit where work has been omitted from the Contract scope in order to be carried out by the Employer or others. In the 1999 contracts there was a blanket prohibition against the Employer's instructing the Contractor to omit work in order for it to be carried out by others (clause 13.1). This has been modified in the 2017 editions by permitting work to be omitted which is to be carried out by the Employer or others but (unless there has been a failure to remedy defects and clause 11.4 applies)[15] only where the Contractor agrees to this (clause 13.1). In that case, however, the Contractor can include in his proposal for an adjustment to the Contract Price under clause 13.3.1 any loss of profit and other loss or damage suffered or to be suffered by him as a result of such an omission (clause 13.3.1(c)).[16]

- *Change in laws*

Another important new risk for the Employer in the 2017 forms is that the scope for claiming additional time and/or money as a result of changes in the laws and regulations affecting the project has been significantly increased in a new clause 13.6.[17] In the 1999 editions the Contractor can claim time and/or money where the laws of the country where the project is situated or the judicial or official interpretation of them, after the Base Date, gives rise to delay and/or additional cost (clause 13.7). The new clause 13.6 adds to this by providing for changes made or published after the Base Date in:

(a)any permit, permission, licence or approval obtained by the Employer or Contractor according to their respective obligations under clause 1.13 (Red and Yellow Books)/1.12 (Silver Book); or

(b)the requirements for any permit, permission, licence and/or approval to be obtained by the Contractor under clause 1.13(b)/1.12(b)

to entitle the Contractor to claim an extension of time and/or additional payment for any delay caused and/or cost incurred as a result.

This additional risk to the Employer is counterbalanced, however, by a new provision in clause 13.6 that provides for the Employer to be entitled to claim a reduction in the

14 See Section 12.2.2.
15 See Section 9.4 below.
16 See Section 11.3.1.
17 See Section 11.4.1.

Contract Price should a change in the laws, including the above changes in or requirements for permits, permissions, licences and/or approvals, result in a decrease rather than an increase in cost.

## 1.5 FIDIC's Guidance for the Preparation of Particular Conditions

As mentioned in Section 1.1 above, the Particular Conditions in the 2017 contracts comprise (a) the Contract Data and (b) the Special Provisions. The 1999 contracts also provide for Particular Conditions but do not divide them up into these two categories; instead, the relevant details are included more generally. The division of the Particular Conditions into Contract Data and Special Provisions was introduced in the 2008 Gold Book for greater clarity, and has been adopted accordingly in the 2017 editions. Together with the general conditions, the Contract Data and Special Provisions comprise the conditions of contract for each of the 2017 Books.

### 1.5.1 The Contract Data

An example of the Contract Data is given at the back of each of the 2017 forms in the section headed 'Guidance for the Preparation of Particular Conditions'. As the brief notes accompanying the example explain, the Contract Data identify the specific information needed to be provided before the documents forming the Contract are complete and in order to avoid the default provisions to be found in some of the clauses of the general conditions taking effect. Thus the Contract Data, which are to be completed by the Employer in preparing the tender documents, set out each of the sub-clauses of the general conditions which require such specific further information. So, for example, clause 1.1.20 defines 'Cost Plus Profit' to mean Cost plus the applicable percentage for profit stated in the Contract Data or, if not so stated, 5%; the first item in the Contract Data example sheet then refers to clause 1.1.20 and leaves a space to be completed by the Employer for identifying the specific percentage profit to be added to Cost. The Employer will ensure that this item is completed if he wishes to avoid the default 5% applying. Similarly, the second item in the Contract Data refers to clause 1.1.27, which requires the Defects Notification Period which is to apply to the Contract to be stated, failing which the default one-year period will apply. Other Contract Data items include the time for completion, the governing law, the ruling language and a host of other important specific details which need to be addressed.

### 1.5.2 The Special Provisions

The Special Provisions enable the parties to amend the general conditions. Amendments of one kind or another are inevitable in any contract in order to meet the specific needs of the project. As FIDIC points out in its Guidance, local legal requirements may necessitate modifications to the general conditions, particularly if they are to be used on domestic contracts. Where any amendments are made to the general conditions great care needs to be taken to ensure both that the amendments are internally consistent and that they are consistent with the unamended general conditions; confusion and disputes are otherwise likely to arise.

As FIDIC points out in the Guidance, the Special Provisions have priority over the general conditions, with the Contract Data having priority over the Special Provisions. This is consistent with clause 1.5 of the general conditions, which sets out the priority of documents forming the contract in the event of any conflict, ambiguity or discrepancy between them.

### 1.5.3 Golden Principles

As part of its Guidance FIDIC urges the parties to have regard to certain 'Golden Principles' when drafting Special Provisions. These Golden Principles are intended to ensure that amendments to the general conditions be limited to those necessary for the particular features of the project and compliance with applicable law; in the case of the Red and Yellow Books, do not change the essential fair and balanced character of the FIDIC Contract; and that the Contract remain recognisably a FIDIC Contract. There are five such Principles set out in the Guidance, some of which might be easier to follow in practice than others. For example, General Principle 1 is that the duties, rights, obligations, roles and responsibilities of all the Contract participants must be generally as implied in the general conditions and appropriate to the requirements of the project; however, it might not be very obvious how this is to be applied in practice, or even whether it ought to be attempted to be applied in a particular project. General Principle 2, on the other hand, which is that the Particular Conditions must be drafted clearly and unambiguously, is certainly salutary general advice.

### 1.5.4 Tender Documents

The FIDIC Guidance provides useful notes on the preparation of tender documents. These notes develop the notes which also appear at the back of the 1999 editions.

Particularly helpful is the guidance on the contents of the Employer's Requirements in the case of the Yellow and Silver Books. FIDIC also places more emphasis in the 2017 notes on the need for the tender documents to be prepared by suitably qualified engineers who are not only familiar with the technical aspects of the required works but also the particular requirements and contractual provisions of a design-build project (in the case of the Yellow and Silver Books) or a construction project (in the case of the Red) and recommends a review by suitably qualified lawyers. The notes also refer to FIDIC's intention to update the FIDIC Procurement Procedures Guide, planned for publication at a later date, to provide guidance on the content and format of the tender documents issued to tenderers specifically by reference to the 2017 editions.

### 1.5.5 Drafting Options

The FIDIC Guidance gives options for various sub-clauses, with in some cases example wording and in others notes and suggestions. These are set out in the Notes on the Preparation of Special Provisions forming part of the Guidance. They are well worth taking into account.

The notes on definitions (clause 1.1), for example, give some useful warnings about how any changes to the definitions may well have serious consequences for the interpretation of the Contract documents and should not generally be made, but go on to

give specific instances where some definitions, such as the Base Date, might be usefully amended, or where the site crosses the border between two countries.

Example wording is provided under clause 1.15, for example, dealing with limitation of liability where parties wish to take into account liabilities which are to be insured under clause 19 and so provide for specific liability by reference to each potential head of damage. Other examples concern notes on Provisional Sums (clause 13.4), formulae for adjustments for changes in cost (clause 13.7) and notes on Schedules of Payments (clause 14.4) and financing arrangements, with example wording.

### 1.5.6 Building Information Modelling

The 2017 editions also include as part of the Guidance at the back of each form advisory notes on the use of FIDIC Contracts where the project uses Building Information Modelling (BIM) systems, with guidance given on specific clauses of the general conditions needing review when the Particular Conditions are drafted. FIDIC anticipates more detailed guidance being necessary and accordingly intends to publish a 'Technology Guide' and a 'Definition of Scope Guideline Specific to BIM' at a later date.

## 1.6 Forms

As in the 1999 editions, the back of the 2017 Books contains example forms, in particular forms of required securities (such as an advance payment guarantee), forms of letter of tender, letter of acceptance and contract agreement for the Red and Yellow Books, or letter of tender and contract agreement for the Silver Book, and in each case a form of dispute avoidance/adjudication agreement.

# 2

# Key General Provisions

## 2.1 Definitions

Clause 1 of the 2017 forms contains a number of general provisions, beginning with a list of definitions at clause 1.1 and continuing with further definitions at 1.2, under the heading 'Interpretation', of various expressions such as 'written' or 'in writing', 'may' and 'shall' together with general guidance on interpreting the Contract, such as that words indicating one gender include all genders.

The definitions at clause 1.1 are listed alphabetically rather than, as in the 1999 editions, under various subject matter headings, and give the meanings of predominantly the nouns-with-initial-capitals which figure throughout the Contracts, such as 'Works', 'Materials' and 'Review'. As with the 1999 editions, wherever an expression has an initial capital in the body of the Contract it is a defined expression, the definition appearing in clause 1.1.

## 2.2 Notices and Other Communications

One of the most important general provisions in the 2017 editions is that dealing with notices and other communications in clause 1.3. 'Notice' is defined in clause 1.1 of the 2017 contracts to mean a written communication identified as a notice and issued in accordance with clause 1.3. Clause 1.3 of the 1999 editions also contains rules about formal communications under the Contract such as notices, but the 2017 rules are more detailed and require particular attention in view of the greater use of notices and associated time limits in the 2017 editions.

Clause 1.3 in the 2017 contracts requires that any notice to be given under the Contract, or the issuing, providing, sending or the like of other communications (including, for example, determinations or instructions) should be in writing, and either:

(a) a paper-original signed by an authorised representative, such as the Contractor's Representative or the Engineer; or
(b) an electronic original generated from a system stated in the Contract Data,[1] or acceptable to the Engineer (or in the Silver Book, the Employer); the electronic

1 The Contract Data in the 2017 editions are defined as the pages, entitled Contract Data, which constitute Part A of the Particular Conditions; in the 1999 editions there was no part of the Particular Conditions with this title, but instead in the Yellow and Red Books the relevant details were contained in the Appendix to

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

original must moreover be transmitted by the electronic address uniquely assigned to the authorised representative.

Further, if it is a notice, the communication must be identified as a notice. If it is another form of communication, it has to be identified as such and include reference to the provision of the Contract under which it is issued, where appropriate.

Other requirements for communications including notices are that they must be delivered, sent or transmitted to the address for the recipient's communications stated in the Contract Data (or to a notified changed address) and that they should not be unreasonably withheld or delayed.

An important additional provision concerns variation instructions. Clause 3.5 of the 2017 Red and Yellow Books and 3.4 of the 2017 Silver Book require that before clause 13.3.1 – dealing with variations by instruction – shall apply, the communication containing the instruction has to state that it constitutes a variation; otherwise, a procedure of notices and counter-notices, set out in clause 3.5/3.7, is triggered, with the intention of flushing out the issue whether an instruction constitutes a variation at an early stage rather than deferring that question to later. The new variation procedure under the 2017 editions is examined in Chapter 11.

## 2.3 Law and Language

Clause 1.4 in the 2017 editions deals with the governing law of the Contract as well as the language of the Contract/communications. These are both important matters that should be stated in the Contract Data.

### 2.3.1 Governing Law

The governing law of a contract is the system of law according to which the rights, obligations and liabilities of the parties to the contract are to be determined. A system of law should be agreed which is reliable and sufficiently sophisticated to allow for the complexities of the contract and the project to which it relates. As noted in Section 1.2 above, the FIDIC forms have UK origins and important features of the forms reflect English or common law concepts. FIDIC contracts have, however, been used successfully whatever the governing law and a feature of the contracts historically, as well as the 2017 editions, has been to ensure as far as possible that the general conditions are neutral with respect to the particular governing law chosen by the parties.

The governing law is to be distinguished from the law relating to the procedure for deciding a dispute which might arise under or in connection with the contract. A dispute arising under a contract governed by, for example, New York law may be resolved by arbitration in Paris or London or Singapore. If the arbitration has its seat in London then any procedural matters relating to the arbitration, such as a serious irregularity in the process, will be dealt with by applying English procedural law, contained mainly in the Arbitration Act 1996; that Act will also determine the extent to which a party might be able to set aside an arbitral award on the basis that the tribunal lacked jurisdiction, for example, or the extent of a party's right to appeal an award on a point of law.

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Tender and in the Silver Book were contained in the Particular Conditions against the various clause numbers which required details to be inserted, such as the time for completion, the Defects Notification Period and the law and language of the Contract.

### 2.3.2 Language of the Contract/Communications

This is an important matter because cross-border contracts will often involve parties who speak different languages and may well be operating with versions of the contract in their own language. It is important to identify the 'ruling' language so that any conflicts between such different versions may be definitively resolved. Thus in the 2017 editions, as with the 1999, the parties are to identify in the Contract Data (2017) or Appendix to Tender/Particular Conditions (1999) the ruling language. It is also important to identify the language for communications, and again this should be stated in the Contract Data (or 1999 equivalent).

## 2.4 Priority of Documents

In both editions of all three forms clause 1.5 deals with the priority of documents. A FIDIC contract will consist of a whole range of documents and so there is a risk of conflicts, ambiguities or discrepancies between them. Clause 1.5 begins by stating the general principle that the documents forming the Contract are to be taken as mutually explanatory of one another. Categories of document are then set out and given a priority, so that any conflict, ambiguity or discrepancy between them can be resolved by assigning the relevant document the appropriate place in the hierarchy. In the Yellow Book in both editions, for example, the Contract Agreement has first place in the hierarchy, followed by the Letter of Acceptance and the Letter of Tender.[2] In the 2017 editions a party detecting an ambiguity or discrepancy must give notice to the Engineer (or in the Silver Book, the other party) and appropriate clarifications or instructions are to be given.

An important practical point about clause 1.5 is that, at the lowest end of the hierarchy, there is a space for 'any other documents' forming part of the Contract. This is a potential trap, because there may well be Contract documents which do not fall into any of the categories identified elsewhere in the hierarchy but which have great importance and require a higher position than perhaps some documents which are listed; there may, for example, be highly important technical requirements contained in Contract documents which ought not to have the lowest priority. Care should be taken, therefore, in ensuring that an appropriate position in the hierarchy is accorded to documents which may not fall into the pre-existing categories, otherwise by default they will be given the lowest ranking.

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2 In the FIDIC contracts the Contract Agreement has a different status depending on the form concerned. The Red and Yellow Books contemplate the Contract's being formed by the Employer's acceptance, by the Letter of Acceptance, of the Contractor's Letter of Tender, the date of formation of the Contract depending on the governing law; this might, for example, be the date when the Contractor receives the Letter of Acceptance. A Contract Agreement is, however, still required to be executed. That short document sets out the parties to the Contract, the basic terms including the works to be executed and the Contract Price together with other details. The Red and Yellow Books provide that, if there is no Letter of Acceptance, then references to it are to be taken to be references to the Contract Agreement and '…the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement'(clause 1.1.50 2017 editions/1.1.1.3, 1999).
The Silver Book in both editions, on the other hand, treats the Contract as being formed upon the signing of the Contract Agreement; there is no Letter of Acceptance/Letter of Tender in the Silver Book. The Contract Agreement may specify conditions remaining to be fulfilled before the Silver Book contract comes into full force and effect.

It is not unusual in many projects for pre-contractual documents to be appended to the Contract with a priority clause intended to protect against the risk of inconsistencies with, for example, bespoke amendments to Contract conditions. However, as a recent English High Court decision on a domestic sub-contract form highlights, careful attention has to be paid to all the technical and commercial documents making up the Contract if unintended consequences are to be avoided. In *Clancy Dowcra Ltd v E.ON Energy Solutions Ltd* [2018] EWHC 3124 (TCC) it was held that, despite a clause giving priority to amendments placing the risk of ground conditions on the sub-contractor it was able to rely on exclusions contained in tender documentation appended to the sub-contract to avoid liability when adverse ground conditions were encountered, since they were taken to have defined the scope of the sub-contract works. Whatever priority is assigned, therefore, appending documents to the Contract may give rise to unintended consequences if insufficient attention is paid to their effect or scope.

## 2.5 Errors in the Employer's Requirements/Delayed Drawings and Instructions

As already mentioned in Section 1.3.3 above, in both editions of the Yellow Book the Contractor in certain circumstances may claim an extension of time and/or cost plus profit if there are errors in the Employer's Requirements which an experienced Contractor exercising due care would not have been expected to detect. We examine below the provisions of clause 1.9 in the 2017 Yellow Book setting out this entitlement, and then those of clause 1.9 in the 2017 Red Book dealing with the Contractor's entitlement to more time and money if any necessary drawings or instructions are not issued to the Contractor timeously.

### 2.5.1 Errors in Employer's Requirements: Yellow Book Clause 1.9

The Contractor is obliged under clause 5.1 to scrutinise the Employer's Requirements after the notice of commencement of the works under clause 8.1 has been issued by the Employer. If the Contractor finds an error, fault or defect in the Employer's Requirements as a result of this scrutiny he must give a notice to the Engineer within whatever period may be stated in the Contract Data (or, if none is stated, 42 days) calculated from the commencement date. If after expiry of this period the Contractor finds an error, fault or defect he must also give a notice to the Engineer describing it.

The Engineer must then proceed under clause 3.7 to agree or determine:

(a) whether or not there is a defect in the Employer's Requirements;
(b) whether or not (taking into account cost and time) an experienced contractor exercising due care would have discovered it either (i) when examining the site and Employer's Requirements before he submits his tender or (ii) when scrutinising the Employer's Requirements under clause 5.1 (if the defect is notified after expiry of the period referred to in the preceding paragraph calculated from the commencement date); and
(c) what measures (if any) the Contractor is required to take to rectify the defect.

If an experienced and careful contractor would not have discovered the defect and suffers delay and/or incurs cost as a result he may claim an extension of time and/or payment of cost plus profit. If the Contractor is required to take any measures as a result of the defect he is entitled to have them treated as having been instructed as variations under clause 13.3.1, and to an appropriate extension of time and/or payment accordingly, without having to claim.

### 2.5.2 Delayed Drawings and Instructions

As an employer-design form of contract the Red Book contains no Employer's Requirements but the Contractor may suffer delay or disruption if the Engineer delays in providing necessary drawings or instructions; clause 1.9 of the Red Book in both editions deals with the Contractor's entitlements in the event of such delay.

Clause 1.9 in the 2017 Red Book[3] provides for the Contractor to give a notice to the Engineer whenever the works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to him within a particular time, which is to be reasonable. The notice must include details of the necessary drawing or instruction, details of why and by when it should be issued, and details of the nature and amount of the delay or disruption likely to be suffered if it is late.

If the Contractor suffers delay and/or incurs cost as a result of a failure of the Engineer to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice (with supporting details), the Contractor may claim an extension of time and/or payment of cost plus profit; with the proviso that if and to the extent that the Engineer's failure was caused by any error or delay by the Contractor, including an error or delay in submitting any of the Contractor's documents, then the Contractor will not be entitled to the extension or additional payment.

## 2.6 Use of Documents

Clauses 1.10 and 1.11 of the 2017 Red and Yellow Books and 1.9 and 1.10 of the 2017 Silver Book deal respectively with (a) the Employer's use of the Contractor's documents and (b) the Contractor's use of the Employer's documents. These are important provisions, especially from the Contractor's point of view and more especially from a design-build Contractor's point of view.

The Employer's use of the Contractor's documents is dealt with in similar terms in all three 2017 contracts. There is, first, express provision that the Contractor is to retain copyright and other intellectual property rights in the Contractor's documents and other design documents made by or on behalf of the Contractor (in the Red Book this applies only to the extent the Contractor makes or prepares such documents). A licence is granted to the Employer by the Contractor for the copying, use and communication of the Contractor's documents and the other design documents, including making and using modifications of them, to apply throughout the actual or intended operational life of the relevant parts of the works. In the event of termination of the Contract, the Employer may continue to copy, use and communicate the relevant documents for the purpose of completing the works or, where appropriate, arranging for others to do so.

3 The provisions are substantially the same in clause 1.9 of the 1999 Red Book.

Where the termination is, for example, for the Employer's convenience, the Contractor is entitled to payment. There is also an express prohibition on the documents' being used, copied or communicated to a third party by or on behalf of the Employer for purposes other than those permitted under clause 1.10 without the Contractor's prior consent.

So far as the Contractor's use of the Employer's documents is concerned, the Employer retains copyright and other intellectual property rights in the Employer's Requirements (Yellow and Silver Books) or Specification and Drawings (Red Book) and other documents made by or on behalf of the Employer, the Contractor being permitted, however, at his own cost to copy, use and communicate them for purposes of the Contract. There is also a prohibition on these documents being copied, used or communicated to a third party, except as necessary for the purposes of the Contract, without the Employer's prior consent.

## 2.7 Compliance with Laws

Clause 1.13 in the 1999 contracts deals with the responsibility of the Contractor and Employer to comply with applicable laws. This is dealt with by clause 1.13 in the 2017 Red and Yellow Books and 1.12 in the 2017 Silver Book but in more detail, mainly adding requirements of assistance.

In the 2017 editions, unless otherwise stated in the Employer's Requirements (Yellow and Silver Books) or Specification (Red Book), the Employer (a) is responsible for planning, zoning or building permits, permissions, licences and/or approvals for the permanent works, and (b) is to indemnify the Contractor in respect of the consequences of any delay or failure to obtain them, unless the failure is caused by the Contractor's own failure to comply with his obligations in clause 1.13(c)/1.12(c) to provide assistance; these obligations are, in turn, to provide whatever assistance is required and within the times required in the Employer's Requirements/Specification or as otherwise reasonably required by the Employer in order to enable him to obtain the relevant permits, permissions, licences and the like.

The Contractor is responsible for giving all notices, paying all taxes, duties and fees and obtaining all other permits, permissions, licences and/or approvals required by the applicable laws in relation to the execution of the works, and is also to indemnify the Employer against the consequences of any failure to do so, unless the failure is caused by the Employer's own failure to comply with his obligations under clause 2.2; these obligations are, in turn, to provide reasonable assistance at the request of the Contractor to obtain copies of the relevant local laws or necessary permits, permissions, licences and the like.

As long as the Contractor complies with his obligations under clause 1.13(c)/1.12(c) to provide assistance, if the Contractor suffers delay and/or incurs cost as a result of the Employer's delay or failure to obtain any necessary permit, permission or the like under clause 1.13(a)/1.12(a), the Contractor may claim an extension of time and/or payment of cost plus profit. If it is the Employer who incurs additional cost as a result of the Contractor's failure to comply with his assistance obligations under clause 1.13(c)/1.12(c), or with his obligations with respect to the giving of notices, paying of taxes, duties and the like or to compliance with any permits, permissions, licences and/or approvals obtained by the Employer in respect of the works (clauses 1.13(b) or (d)/1.12(b) or (d)), then the Employer may claim payment of that cost from the Contractor.

## 2.8 Limitation of Liability

Clause 1.15 of the 2017 Red and Yellow Books/clause 1.14 of the 2017 Silver Book limits the parties' liability to one another in connection with the Contract in two ways:

(i) neither party is to be liable to the other party for 'loss of use of any works, loss of profit, loss of any contract or for any indirect or consequential loss or damage' with certain exceptions; and
(ii) a limit is placed on the total liability of the Contractor to the Employer, again with certain exceptions.

In the 1999 editions clause 17.6 also limits liability in the above two ways but with fewer exceptions.

In the 2017 editions there is an overall exception in clause 1.15/1.14, in that the clause does not limit liability in any case of 'fraud, gross negligence, deliberate default or reckless misconduct by the defaulting Party'. The 1999 editions have a similar overall exception, except that 'gross negligence' is not among the types of default listed.[4]

### 2.8.1 Indirect or Consequential Loss or Damage

As mentioned above, clause 1.15/1.14 in the 2017 editions limits the parties' liability to one another in two ways.

The first paragraph of clause 1.15/1.14 provides that neither party shall be liable to the other for loss of use of any works, loss of profit, loss of any contract or for any 'indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract', other than under the following clauses:

(a) clause 8.8, relating to delay damages;
(b) sub-paragraph (c) of clause 13.3.1, relating to variations by instruction;
(c) clause 15.7, relating to payment after termination for Employer's convenience;
(d) clause 16.4, relating to payment after termination by the Contractor;
(e) clause 17.3, relating to intellectual and industrial property rights;
(f) the first paragraph of clause 17.4, relating to indemnities given by the Contractor[5]; and
(g) clause 17.5, relating to indemnities given by the Employer.

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4 'Gross negligence' and 'reckless misconduct' are expressions which may not be very familiar to users of the contracts. 'Gross negligence' is usually taken to mean an extreme failure to take reasonable care, and is sometimes taken to imply a conscious and voluntary disregard for the need to take care; 'reckless misconduct' is usually taken to mean an intentional act or omission in breach of some duty without any regard for its likely injurious consequences. The interpretation of these and the other expressions used in this part of the clause, which are not defined in the contracts, will ultimately be a matter of the governing law.

5 It is important to note that this exception is confined to the *first paragraph* of clause 17.4, which sets out indemnities provided by the Contractor in respect of personal injury and damage to property; it is only in respect of those indemnities that the Contractor cannot benefit from the limitation in clause 1.15/1.14. The *second paragraph* of clause 17.4 (to which we will return) provides for the Contractor also to indemnify the Employer in respect of failure to comply with the fitness for purpose obligation contained in clause 4.1; in the pre-release version of the Yellow Book second edition this indemnity was also excepted from the limitation, but that position was reversed in the 2017 Books so that in respect of such failures the Contractor benefits from the limitation.

With the exceptions listed at (a)–(g) above, therefore, neither party is to be liable to the other for the loss of use of any works, loss of profit, loss of any contract or for any 'indirect or consequential loss or damage' which may be suffered by the other party in connection with the Contract.

The wording that causes most difficulty, especially to those from a non-common law background, is the reference to indirect or consequential loss or damage. These expressions are used in the English law of contract to distinguish certain types of loss or damage and the circumstances in which the innocent party may recover compensation for them. Construction, sale and other commercial contracts often contain clauses excluding or limiting liability for consequential or indirect loss resulting from a breach.

English law in general compensates a party for any loss which is a usual consequence of a breach of contract. Thus, if in breach of contract a builder badly installs the windows in a house he is building it is a usual consequence of his breach that damage should result to the surrounding walls by the ingress of rain water; and the building owner may be able to recover the cost of putting right that damage from the builder. Such a loss would be direct loss, flowing naturally or usually from the breach of contract.

In some circumstances the innocent party may be able to recover damages even where a consequence of the breach of contract was unusual. An innocent party may be able to recover damages where the loss was not a usual consequence of the breach if it was, nevertheless, within the reasonable contemplation of both parties at the date of the contract that such a loss may result from the breach. Suppose that in the above example of the defective window installation the owner had intended to let the house once completed and as a result of the builder's breach of contract could not do so for some months later than he would have been able to let the house had the builder complied with the contract. If the builder had been told at the date when the contract was formed that the owner intended to let the house when completed the owner may be able to recover damages equivalent to his loss of rent for an appropriate period on the basis that such a loss was within the reasonable contemplation of both parties at that time. The loss of rental income would be indirect or consequential loss, recoverable because of the special knowledge which the builder possessed at the date of the contract which made that kind of loss within the parties' reasonable contemplation.

The distinction between direct and consequential or indirect loss originates in a policy adopted by the common law of limiting the recoverability of compensation, or damages, for breaches of contract so that the party at fault is not held liable for any and all loss resulting from a breach, however improbable or unpredictable such a loss might be. Loss beyond the limit is regarded as 'too remote' to be recoverable. In the famous Victorian case of *Hadley v Baxendale* (1854) 9 Ex. 341 Baron Alderson said (at [354]):

> 'Where two parties have made a contract which one of them has broken, the damages which the other party ought to receive in respect of such breach of contract should be such as may fairly and reasonably be considered either arising naturally, i.e. according to the usual course of things from such breach of contract itself, or such as may reasonably be supposed to have been in the contemplation of both parties at the time they made the contract, as the probable result of the breach of it.'

> 'If the special circumstances were communicated by the plaintiffs to the defendants, and thus known to both parties, the damages resulting from the breach of such a contract, which they would reasonably contemplate, would be the amount of injury which would ordinarily follow from a breach of contract under these special circumstances so known and communicated.'

The rule thus has two limbs:

(a) loss or damage which arises naturally, or according to the usual course of things, from the breach of contract; or
(b) loss or damage which may reasonably be supposed to have been in the contemplation of both parties at the time they made the contract as the probable result of the breach given the special circumstances known to them at the date of the contract.

An example of the distinction between the first and second limbs of *Hadley v Baxendale* is *Victoria Laundry Ltd v Newman Ltd* [1949] 2 KB 528. A laundry company, intending to enlarge its business, ordered a boiler from the defendants, to be delivered on a certain date. Owing to a mishap while the boiler was being dismantled by third parties it sustained damage and delivery to the company was delayed. The defendants were aware of the nature of the plaintiffs' business, and by a letter had been informed that the plaintiffs intended to put the boiler in use in the shortest possible space of time. As a result of the delay the laundry lost certain exceptionally lucrative contracts. It was held that although the defendants were not liable for the loss of profits on these contracts, of which they had no knowledge, they nevertheless knew or must be taken to have known from the circumstances and their position as engineers and business people that there would be a business loss of some kind and were liable for such loss, which would have to be assessed.[6]

When clause 1.15/1.14 excludes liability for 'indirect or consequential loss or damage' it excludes liability in contract for a range of potential losses which would otherwise be recoverable if the parties had the relevant knowledge; it can be seen as confining the recoverable range to the first limb of the rule in *Hadley v Baxendale*.

### 2.8.2 Cap on Contractor's Total Liability

The second paragraph of clause 1.15/1.14 in the 2017 editions provides that the total liability of the Contractor to the Employer under or in connection with the Contract, other than:

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6 In the House of Lords decision in *The Achilleas* [2008] UKHL 48 it was said (at [92]) that '…one must ask, not only whether the parties must be taken to have had this type of loss within their contemplation when the contract was made, but also whether they must be taken to have had liability for this type of loss within their contemplation then. In other words, is the [defendant] to be taken to have undertaken legal responsibility for this type of loss?' Subsequent decisions have treated the *Achilleas* test either as not changing the law or as applying in relatively rare cases where the application of the general test may lead to a disproportionate liability or one which was contrary to market understanding and expectations (see *A.S.M. Shipping Ltd of India v T.T.M.I. Ltd of England* [2009] 1 Lloyd's Rep 293; *Sylvia Shipping Co Ltd v Progress Bulk Carriers Ltd* [2010] 2 Lloyd's Rep 81).

(i) under clause 2.6, relating to Employer-supplied materials and Employer's equipment;
(ii) under clause 4.19, relating to temporary utilities;
(iii) under clause 17.3, relating to intellectual and industrial property rights; and
(iv) under the first paragraph of clause 17.4, relating to indemnities provided by the Contractor

are not to exceed whatever sum may be stated in the Contract Data or, if no sum is stated, the Accepted Contract Amount (in the Red and Yellow Books) or (in the Silver Book) the Contract Price stated in the Contract Agreement. In this part of clause 1.15/1.14, the Contractor's total liability under or in connection with the Contract is thus limited or capped. The Accepted Contract Amount is defined in clause 1.1.1 of the Red and Yellow Books to mean the amount accepted in the Letter of Acceptance for the execution of the works in accordance with the Contract; the Contract Price is defined in clause 1.1.10 of the Silver Book to mean the agreed amount stated in the Contract Agreement for the execution of the works, including any adjustments in accordance with the Contract.[7]

Applying a cap to the Contractor's total liability under or in connection with the Contract is intended to encourage responsible contractors to tender by giving them an assurance about the total amount of their potential exposure and to enable them to insure appropriately[8]; it is important to remember, however, that the clause does not limit the duration of the Contractor's liability, only its amount. As with the 1999 editions, clause 11.10 of the 2017 contracts expressly provides that even after acceptance of the works by issue of the Performance Certificate each party is to remain liable for the fulfilment of any obligation remaining unperformed at that time and that, for purposes of determining the nature and extent of unperformed obligations, the Contract is to be deemed to remain in force. The 2017 contracts differ from the 1999 editions only in that, in respect of plant, the Contractor is not to be held liable for any defects or damage occurring more than two years after expiry of the Defects Notification Period, unless that is inconsistent with the applicable law or in any case of fraud, gross negligence, deliberate default or reckless misconduct.

## 2.9 Contract Termination: Clause 1.16 Red and Yellow Books/1.15 Silver Book

This is a novel clause in the 2017 editions. It is intended to clarify the position on termination, and in particular that, unless the governing law imposes any mandatory requirements to the contrary, termination of the Contract under any of the provisions of the general conditions requires no action of whatever kind by either party beyond what is stated in the relevant sub-clause. Thus no additional steps, such as giving additional notices or warnings, are required beyond (a) what the mandatory rules of the governing law require and (b) what is set out in the specific sub-clause under which the Contract is terminated.

7 Clause 1.1.4.1 of the 1999 editions contains similar definitions, but note that in the 2017 editions the words '… and the remedying of any defects' are deleted.

8 The Contractor is obliged under clause 19.2.3, for example, to insure against liability for breach of his design, including fitness for purpose, obligations under clause 4.1; see further Section 4.1.

# 3

# The Employer, the Engineer and Contract Administration

## 3.1 The Employer

The 2017 contracts have substantially redrawn the terms of clause 2 of the 1999 editions, dealing with the Employer. Most notably, clause 2.5 of the 1999 editions deals with Employers' claims whereas this has been deleted from the 2017 editions, under which both Contractors' and Employers' claims are dealt with in a new clause 20 in exactly the same way.

Clause 2 of the three 2017 contracts sets out the obligations of the Employer in substantially the same terms.

### 3.1.1 Right of Access to Site

Clause 2.1 sets out the Employer's obligations to give the Contractor right of access to and possession of the site within the time or times stated in the Contract Data. Access and possession may not be exclusive to the Contractor, since he may, for example, be required to work with other contractors appointed by the Employer. If the Contract Data do not set times when possession or access are to be given to various parts of the site then the Employer's obligation is to give the Contractor right of access to and possession of those parts of the site within whatever times are necessary in order to enable the Contractor to proceed in accordance with the programme (or, if there is no programme at that time, the initial programme submitted under clause 8.3: see Section 7.3 below). If the Employer fails to provide the required access or possession then the Contractor may claim an appropriate extension of time and/or payment of cost plus profit if delay or cost was incurred in consequence; with the proviso that if the Employer's failure was itself caused by any error or delay by the Contractor, including in the submission of appropriate Contractor's documents, the Contractor will not be entitled to an extension or additional payment.

In the Yellow and Silver Books, if Contractor's documents are needed before the Employer can give possession of any foundation, structure, plant or means of access, the Contractor is obliged to submit such documents to the Engineer or Employer in whatever time or manner is stated in the Employer's Requirements.

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

### 3.1.2 Assistance

Clause 2.2 in all three 2017 contracts provides for the Employer, at the Contractor's request, promptly to provide reasonable assistance so as to enable the Contractor to obtain copies of relevant laws of the country where the project is taking place, and any necessary permits, permissions, licences or approvals required by the applicable law which the Contractor is required to obtain under clause 1.13. Such assistance is also to be provided for the delivery of goods and for export of Contractor's equipment when removed from the site.

### 3.1.3 Employer's Personnel and Other Contractors

Clause 2.3 provides for the Employer's personnel and any other contractors on or near the site to cooperate with the Contractor and comply with relevant health and safety obligations and environmental protections.

### 3.1.4 Employer's Financial Arrangements

Clause 2.4 contains important provisions relating to the Employer's financial arrangements. This clause is far more extensive, and gives the Contractor greater protection, than the corresponding clause 2.4 in the 1999 editions. It is particularly important for the Contractor to be confident, or as confident as possible, about the Employer's ability to sustain payments during the project and to comply with any other Employer's financial obligations since, although the Contractor may be able to obtain security against performance of the Employer's financial obligations, this is often not obtained or may be inadequate. The Employer's failure to provide the appropriate evidence of his financial arrangements, in accordance with clause 2.4, is one of the grounds for suspension and termination by the Contractor under clause 16.

Clause 2.4 of the 2017 editions provides that the Employer's arrangements for financing his obligations under the Contract are to be detailed in the Contract Data. If the Employer intends to make any material change to these arrangements, which are such that they might affect his ability to pay whatever balance of the Contract Price might be remaining, as estimated by the Engineer, or Employer if Silver Book, or if he has to do so because of changes in his financial situation, then the Employer must immediately give a notice to the Contractor with full supporting details.

Additional protection is provided where the original Contract works are substantially changed by variations under clause 13, or where there has been non-payment or a material change in the Employer's financial arrangements of which the Contractor has not received any notice. Thus if the Contractor:

(a) receives an instruction to execute a variation with a price greater than 10% of the Accepted Contract Amount (in the Red and Yellow Books) or the Contract Price stated in the Contract Agreement (in the Silver Book), or if the cumulative total of variations exceeds 30% of that Amount or Price; or
(b) does not receive payment in accordance with clause 14.7; or
(c) becomes aware of a material change in the Employer's financial arrangements of which he has not received a notice under clause 2.4,

then the Contractor may request and the Employer, within 28 days of receiving the request, must provide reasonable evidence that financial arrangements have been made and are being maintained to enable him to pay whatever part of the Contract Price remains to be paid at that time, as estimated by the Engineer (if the Red or Yellow Books) or the Employer (if the Silver Book).

### 3.1.5 Site Data and Items of Reference

Clause 2.5 in the 2017 editions deals with site data and items of reference. This clause provides for the Employer to make available to the Contractor before the Base Date all relevant data in his possession as to the topography of the site and sub-surface, hydrological, climatic and environmental conditions at the site. If the Employer comes into possession of any such data after the Base Date then he is to provide them promptly to the Contractor. Original survey control points, lines and levels of reference, referred to collectively as 'items of reference' in the general conditions, are to be specified in the Employer's Requirements (in the Silver Book), or in the Employer's Requirements or issued to the Contractor by a notice from the Engineer in the Yellow Book, or (in the Red Book) in the Drawings and/or Specification or again issued to the Contractor by a notice from the Engineer. The Silver Book moreover expressly disclaims any responsibility of the Employer for the accuracy, sufficiency or completeness of the data and/or items of reference except to the extent stated in clause 5.1 (discussed in Section 5.1 below).

### 3.1.6 Employer-supplied Materials and Employer's Equipment

Clause 2.6 provides for the Employer to make any Employer-supplied materials and/or Employer's equipment listed in the Employer's Requirements (Yellow and Silver Books) or Specification (Red Book) available to the Contractor in accordance with specified details as to time, arrangements, rates and prices, the Contractor to be responsible for each item of Employer's equipment while in use or operation by any of the Contractor's personnel.

## 3.2 The Engineer/Employer's Administration

As already mentioned in Section 1.2.1 above, the Engineer in both editions of the Red and Yellow Books has a central role. He is involved in all aspects of the project from start to finish and its success or failure depends significantly on his willingness and ability to perform his duties properly. In the FIDIC contracts those duties are essentially twofold:

(i) the Engineer administers the Contract, being responsible for such matters as certifying payments and taking-over of the works, monitoring progress, instructing variations, inspecting and attending the Contractor's testing, including tests on completion; and
(ii) the Engineer has the function of seeking agreement on or, in default, determining various matters arising under the Contract including extensions of time, adjustments to the Contract Price for variations and a range of other matters.

Clause 3 in the 2017 Red and Yellow Books sets out the authority, functions and duties of the Engineer in far more detail than under the same clause of the 1999 editions. Noticeably, whereas under the 1999 editions the Engineer was required under clause

3.5 merely to consult the parties in order to seek to reach agreement and, if agreement was not achieved, to make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances, clause 3.7 of the 2017 Red and Yellow Books sets out a detailed step-by-step process with time limits and deeming provisions for the Engineer to agree or determine a matter and involves him far more closely in seeking to facilitate agreement and to resolve issues as they arise.

Under the 2017 Books the Engineer's determinations are also to be fair, in accordance with the Contract and take account of all relevant circumstances but he is also now expressly required to act neutrally between the parties in discharging his functions under clause 3.7 and is not to be deemed to act for the Employer in doing so, thus affecting the *process* as well as the outcome of a determination.[1] The Engineer's enhanced role in the 2017 editions reflects the greater emphasis placed on active project management and the avoidance of disputes. The qualities of the Engineer, his powers and authority, including appointing a Representative to act on his behalf at the site, are set out more clearly and fully in the two new Books and are considered in Section 3.2.1 below.

Instead of an Engineer, the Employer in the 2017 Silver Book must appoint an Employer's Representative. Unlike the 1999 edition, this is no longer optional for the Employer. The Contractor's Representative now has a single point of contact during the course of the project, including when instructions are issued, and the Employer's Representative alone is now responsible for agreeing or determining claims and other matters under clause 3.5 of the 2017 Silver Book.[2]

The procedure for dealing with claims and other matters set out in clause 3.5 of the 2017 Silver Book is the same as in clause 3.7 of the other two Books, and the qualities of the Employer's Representative, his powers and authority are similar to those of the Engineer, as described in more detail below. One significant difference, however, is that the Employer's Representative is not required to act neutrally in carrying out his duties under clause 3.5 whereas the Engineer is so required, under clause 3.7 of the other two Books; the Employer's Representative is, however, still not to be deemed to act for the Employer in discharging these duties and any determination he makes must also be fair, in accordance with the Contract and take due regard of all relevant circumstances.

### 3.2.1 Contract Administration in the Three Books: Engineer's/Employer's Representative's Role and Authority

- *The Engineer/Employer's Representative*

Clause 3.1 of the 2017 Red and Yellow Books provides for the appointment of the Engineer and the vesting of all authority necessary to act as the Engineer under the Contract; requirements are also specified for the qualifications and background of the Engineer and fluency in the ruling language as defined in clause 1.4.

The 1999 Red and Yellow Books provide, by clause 3.1, that the Engineer's staff are to include suitably qualified engineers and other professionals competent to carry out the Engineer's duties, but the 2017 Books go further and provide that the Engineer must be a professional engineer with suitable qualifications, experience and competence and fluent in the language of the Contract.

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1 Unless the Contract otherwise provides, in carrying out his duties or exercising authority in connection with the Contract the Engineer is to be deemed to act for the Employer: clause 3.2, first paragraph.

2 Unlike the 2017 Red and Yellow Books, the number of the clause dealing with determinations in the 2017 Silver Book, clause 3.5, remains the same as in the 1999 edition (rather than changing to clause 3.7).

The first editions of the Red and Yellow Books expressly state that the Engineer has no authority to amend the Contract or, except where otherwise provided, authority to relieve either party of any duties, obligations or responsibilities under the Contract (clause 3.1). Clause 3.2 of the 2017 editions contains a very similar provision.

Clause 3.1 of the 2017 Red and Yellow Books provides for the Engineer to be a legal entity rather than an individual or firm. If the Engineer is a legal entity, notice of the natural person appointed and authorised to act on its behalf has to be given (clause 3.1, fourth paragraph).

Clause 3.1 of the 2017 Silver Book requires the Employer to appoint an Employer's Representative, who, unless otherwise stated in the Contract conditions, is to be deemed to act on the Employer's behalf under the Contract. The Employer's Representative is also vested with the full authority of the Employer, except in respect of clause 15 relating to termination of the Contract by the Employer; this contrasts with the Red and Yellow Books, where no such limit on the Engineer's authority applies. Requirements as to competence and the notice to be given if the Employer's Representative is a legal entity are set out in clause 3.1 in terms similar to those in clause 3.1 of the other two Books.[3]

- *Authority and duties*

Clause 3.2 of the 2017 Red and Yellow Books sets out the Engineer's duties and authority. He may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the Employer's consent before exercising a specified authority, such a requirement must be stated in the Particular Conditions. However, there is no requirement for the Engineer to obtain the Employer's consent before he exercises his authority under clause 3.7; and the Employer must not impose further constraints on the Engineer's authority. But where the Engineer exercises a specified authority for which the Employer's consent is required, then for the purposes of the Contract such consent is deemed to have been given.

The 2017 Silver Book (like the 1999 edition) states no similar constraints on the Employer with respect to exercise of his Representative's authority, clause 3.2 in both editions dealing only with delegated authority to assistants.

Under clause 3.2 of the 2017 Red and Yellow Books any acceptance, agreement, approval, instruction, notice, no-objection and the like by the Engineer, his representative or any assistant does not relieve the Contractor of any duty, obligation or responsibility which he has under or in connection with the Contract. This provision of clause 3.2 in the 2017 editions is similar to the terms of clause 3.1(c) of the 1999 editions of the Red and Yellow Books.

Clause 3.3 of the 2017 and 1999 Silver Book relates to delegated persons (including the Employer's Representative) and provides that any approvals, acceptances, notices and the like do not, unless otherwise stated, relieve the Contractor of any of his responsibilities under or in connection with the Contract (see further below).

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3 A note on terminology: in the 2017 Silver Book 'the Employer' is normally used when a particular function or role is carried out in fact by the Employer's Representative, except in relation to those matters where the Employer's Representative is not to be taken to act on the Employer's behalf, such as in relation to an agreement or determination under clause 3.5, and this usage is followed below.

- *Engineer's Representative/assistants*

Clause 3.3 of the 2017 Red and Yellow Books provides for the Engineer to appoint, if he wishes to do so, an Engineer's Representative to whom authority may be delegated to act on his behalf at the site. Clause 3.4 provides for the delegation of duties and authority to assistants, with the limitation, however, that the Engineer may not delegate authority to act under clause 3.7 or to give a notice to correct under clause 15.1.[4] Each assistant's authority is to be carefully defined by reference to the notice delegating the relevant authority; in particular his or her authority to issue instructions to the Contractor extends only to the extent defined in the Engineer's notice of delegation under clause 3.4.

Clause 3.2 of the 2017 Silver Book provides for the appointment, by a notice to the Contractor, of assistants to whom authority may be delegated by the Employer or Employer's Representative, subject however to the Employer's Representative's being unable to delegate authority to act under clause 3.5 (determinations) or to issue a notice to correct under clause 15.1. Clause 3.3 limits the extent of any delegated authority to what is defined in a notice under clauses 3.1 (relating to the Employer's Representative) or 3.2 (other Employer's personnel) and provides that the Contractor is not to be relieved of any duty or responsibility by a delegated person's (including the Employer's Representative's) acceptance, agreement, approval, instruction, notice, no-objection and the like (in accordance with the notice of delegation), unless otherwise stated in the delegated person's communication relating to such an act.

### 3.2.2 Instructions

Clause 3.5 of the 2017 Red and Yellow Books and clause 3.4 of the 2017 Silver Book deal with the Engineer's/Employer's instructions in largely the same way. This contrasts with the 1999 editions of the three Books, most noticeably in that in the Red Book the Engineer's instructions did not have to be in writing, although he was meant to give his instructions in writing wherever this was practicable. Provision was then made in clause 3.3 for confirmation of oral instructions, the confirmation then to be taken as constituting the Engineer's written instruction. In the 2017 editions of all three Books instructions must be in writing by virtue of clause 1.3, which expressly provides for instructions to be in writing and to comply with the other requirements of that clause.

Another difference between the 1999 editions of the three Books is that the instructions which the Engineer, in the Red and Yellow Books, might issue were to be instructions which may be necessary '… for the execution of the Works and the remedying of any defects, all in accordance with the Contract' (clause 3.3). In the 1999 Silver Book, on the other hand, the instructions which the Employer might issue were to be instructions which may be necessary '… for the Contractor to perform his obligations under the Contract' (clause 3.4).

In the 2017 editions of all three Books this wording has been replaced by a uniform wording: instructions may be issued where they are necessary '… for the execution of the Works, all in accordance with the Contract'. Thus the 2017 editions adopt the wording of the 1999 Red and Yellow Books with respect to the scope of instructions under the Contract, deleting however the words '… and of the remedying of any defects'.

4 See Section 12.1.4 below.

It has been suggested by some commentators that this creates a difficulty, in that it is now unclear whether, strictly speaking, the Engineer or Employer is authorised to issue instructions for the remedying of defects. There does not, however, appear to be such a difficulty in reality since clause 7.6 of the three 2017 Books expressly entitles the Engineer or Employer to issue instructions at any time before taking over of the works to repair or remedy plant or materials not in accordance with the Contract, any other works which are not in accordance with the Contract and to carry out any remedial work urgently required for the safety of the works; and clause 7.5 in the three 2017 Books contains provision for notices to be given in respect of defective works as a result of examination, inspection, measurement or testing of any plant, materials, design or workmanship, with a power in the Engineer or Employer to give instructions under clause 7.6 where necessary. To have retained the old wording might, indeed, have generated confusion as to the appropriate clause under which an instruction to remedy defects prior to taking over might be given. Rather than retaining the old reference to the general power to issue instructions to remedy any defects, the 2017 editions have made the exercise of that power specific to clauses 7.5 and 7.6; in relation to defects dealt with after taking over, the provisions relating to the Defects Notification Period apply.

### 3.2.3 Instructions: The 2017 Provisions

Instructions are dealt with in largely the same way in the 2017 editions of all three Books, albeit with different numbering: clause 3.5 in the Red and Yellow Books, clause 3.4 in the Silver Book.

Clause 3.5/3.4 provides that the Engineer or Employer, through the Employer's Representative, may issue at any time instructions to the Contractor necessary for the execution of the works in accordance with the Contract.

It is expressly provided that the Contractor may only take instructions from:

(a) the Engineer/Employer's Representative; or
(b) the Engineer's Representative (Red or Yellow Book), if appointed; or
(c) an assistant with the appropriate delegated authority.

This establishes a clear channel of communication. Clause 3.5/3.4 then provides that, subject to a proviso concerning variations, the Contractor must comply with any instructions given on any matter related to the Contract.

The proviso is that if an instruction states that it constitutes a variation then clause 13.3.1, relating specifically to variation instructions, is to apply. This clause is considered in Section 11.3.1 below.

### 3.2.4 Where the Instruction Does Not State that it is a Variation

If the instruction is not stated to be a variation, but the Contractor considers either:

(a) that it does constitute a variation (or involves work that is already part of an existing variation); or
(b) that the instruction does not comply with applicable laws or will reduce the safety of the works or is technically impossible

then he is immediately, and before commencing any work related to the instruction, to give a notice to the Engineer or (if Silver Book) the Employer with reasons. The Engineer/Employer is to respond within seven days after receiving this notice, by giving a

notice confirming, reversing or varying the instruction. If he does not do so within this time he will be deemed to have revoked the instruction. Otherwise, the Contractor is to comply with and be bound by the terms of the Engineer's or Employer's response.

### 3.2.5 Clause 3.5/3.4 Sub-paragraph (a)

The provision referred to in sub-paragraph (a) of Section 3.2.4, above, is intended to avoid a situation which often arises under the 1999 contracts. The Engineer/Employer might issue an instruction without identifying whether it amounts to a variation. If the Contractor believes that it does constitute a variation, he will raise the matter with the Engineer or Employer and, if the Engineer or Employer does not agree, or does not address the matter, pursue it as a claim while continuing with the work. This leaves the matter in limbo and can in some cases mean that it is not resolved until some time later, even if the initial 28-day claim notice under clause 20.1 is issued to preserve the Contractor's position.

It was thought that the project might be better managed by requiring the Engineer or Employer to identify whether an instruction constituted a variation and seeking at least to some extent to have the question whether it actually was a variation dealt with as it arose.

The 2017 contracts therefore require the Contractor to raise 'immediately' the issue whether an instruction does constitute a variation, giving reasons why he contends that it does, and in the meantime to hold back from commencing any work related to the instruction. To avoid undue delay to the works the Engineer/Employer must respond within seven days to the Contractor's notice; and in his response he must either confirm, reverse or vary the instruction. The deeming provision designed to give force to this time limit is that, if he fails to respond within the seven days, he is deemed to have revoked the instruction. If, however, he does respond within time the Contractor must comply with the terms of the response and so, if the instruction is confirmed, must proceed with the works accordingly.

This clause thus gives the Contractor the opportunity to raise as soon as the instruction is given the issue whether it constitutes a variation together with providing his reasons for that position; the expression 'immediately' is undefined, and it may well be the case that the Contractor will require some time after the instruction is issued before he can appreciate if it does amount to a variation, and articulate his reasons for taking that view. A response after such a period might well be 'immediate' and it was not therefore felt appropriate to define when the Contractor might raise the point more precisely, still less to attach any express time bar to it; but it is acknowledged that whether the Contractor has raised the matter quickly enough might give rise to argument.

The Engineer's/Employer's response may well not resolve the question whether the instruction constitutes a variation since within the seven days he might simply confirm the instruction and need not give any reasons in response to the Contractor's reasons why he (the Contractor) considers that the instruction was a variation. It does, however, at least give the Contractor the opportunity to raise the matter in a considered way as it arises, and the Engineer or Employer an occasion to consider or reconsider if what he has instructed is a variation; the Engineer/Employer may be as eager to avoid unnecessary disputes as the Contractor. If the Contractor believes the response fails to address his points and that the instruction constitutes a variation he may, subject

to clause 20.2,[5] claim an extension of time and/or additional payment for any delay or additional cost resulting to him from complying with the instruction as if the instruction were treated as a variation under clause 13.3.1.

### 3.2.6 Clause 3.5/3.4 Sub-paragraph (b)

If an instruction is not stated to be a variation, and the Contractor does not consider that it is, but does believe that the instruction fails to comply with applicable laws or will reduce the safety of the works or is technically impossible, then under sub-paragraph (b) of clause 3.5/3.4 he must, again before commencing any work related to the instruction, immediately give a notice to the Engineer/Employer with reasons for his view. The same seven-day response is required from the Engineer/Employer confirming, reversing or varying the instruction, with the Contractor being bound to comply with the terms of the Engineer's /Employer's response, provided the notice is given in time.

The purpose of this provision is to deal with instructions which are not stated or considered by the Contractor to be variations but where the Contractor considers that the instruction fails to comply with applicable laws, will reduce the safety of the works or is technically impossible. The 2017 Books thus introduce a specific right to object to an instruction in three specific situations where there would otherwise not be (and was not in the 1999 editions) any right to object. The Engineer/Employer has the final word, however, and may confirm the instruction despite the Contractor's objection.[6]

## 3.3 Agreement or Determination

The procedure for obtaining the parties' agreement or issuing a determination if no agreement is forthcoming has become far more detailed and structured than in the 1999 editions of the contracts, with greater emphasis on consultation involving the parties and the Engineer/Employer's Representative. The procedure is the same in all the 2017 contracts, although, as noted above, it is set out in clause 3.7 of the 2017 Red and Yellow Books and clause 3.5 of the Silver Book. As also noted above, the process of agreement or determination covers not merely claims but applies whenever the conditions of contract require the Engineer or Employer's Representative to proceed to determine any matter or claim.

In what follows clause references will be to clause 3.7 of the 2017 Red and Yellow Books and the contract administrator will be referred to as 'the Engineer'.

### 3.3.1 Consultation

Clause 3.5 of the 1999 editions of the three contracts provides merely for the Engineer or Employer to consult each party in an endeavour to reach agreement. This quite often does not happen in practice, or, if it does, is often perfunctory. Clause 3.7.1 now requires the Engineer to consult both parties jointly and/or separately and to encourage discussion between the parties in an endeavour to reach agreement. The Engineer

5 See Section 15.2.

6 The same final say applies under clause 13.1 where the instruction is stated to be a variation and the Contractor objects, on one of the grounds allowed under that clause: see further Section 11.1.4 below.

must commence such consultation promptly to allow adequate time to comply with the time limit for obtaining agreement under clause 3.7.3, which specifies a default period of 42 days from certain start points which are set out in that clause.[7] The Engineer must also provide the parties with a record of the consultation, unless this is agreed to be dispensed with.

If agreement is achieved within the time limit for agreement under clause 3.7.3, the Engineer must give a notice of the agreement to both parties, stating on its face that it is a notice of their agreement (which they must sign) and including a copy of it. If no agreement is achieved within the time limit, or both parties advise the Engineer that no agreement can be achieved within that time, whichever is the earlier, then the Engineer is to give a notice to the parties accordingly. He must then immediately proceed under clause 3.7.2 to a determination.

### 3.3.2 Engineer's Determination

Under clause 3.7.2 the Engineer must make a fair determination of the matter or claim, in accordance with the Contract, taking due regard of all relevant circumstances. Within the time limit set out in clause 3.7.3 (see next section), he must give a notice to both parties of his determination. The notice must state on its face that it is a notice of the Engineer's determination and describe the determination in detail, with reasons and detailed supporting particulars.

### 3.3.3 Time Limits

Clause 3.7.3 sets out the time limits for the various stages in the agreement or determination process.

The Engineer must give notice of agreement, if agreement is reached, within 42 days, or within whatever other time limit he proposes and the parties agree, after:

(a) in the case of a matter to be agreed or determined which is *not* a claim, whatever date of commencement of the time limit for agreement may be stated in the relevant Contract clause; or
(b) where there *is* a claim by either party, for relief *other than* under clause 20.1(a) or (b),[8] the date the Engineer receives a clause 20.1 notice from the claiming party; or
(c) where there is a claim under clause 20.1(a) or (b), the date the Engineer receives:
    (i) a fully detailed claim under clause 20.2.4,[9] or
    (ii) where there is a claim of continuing effect under clause 20.2.6,[10] an interim or final fully detailed claim, as appropriate.

The Engineer must give the notice of his determination referred to in clause 3.7.2 within 42 days, or whatever other time he proposes and the parties agree, after either

7 See Section 3.3.3 below.
8 These are money or time-related claims. Clause 20.1(a) covers claims *by the Employer* for any additional payment from the Contractor, a reduction in the Contract Price and/or for an extension to the Defects Notification Period; a claim under clause 20.1(b) is a claim *by the Contractor* to any additional payment from the Employer and/or to an extension of time.
9 See Section 15.2.5.
10 See Section 15.2.13.

(a) no agreement is reached under clause 3.7.1 within the 42 days (or other agreed time limit) or (b) the parties advise that no agreement can be achieved within that period, whichever is the earlier.

If the Engineer does not give his notice, of either agreement or determination, within the relevant time limit then (a) in the case of a claim, the Engineer is deemed to have given a determination rejecting the claim, or (b) in the case of any matter to be agreed or determined other than a claim, a dispute is deemed to have arisen under clause 1.1.29 which may then be referred by either party to a Dispute Avoidance/Adjudication Board (DAAB)[11] for a decision under clause 21.4, without the usual notice of dissatisfaction (NOD)[12] being given.

Thus time limits reinforced by deeming provisions apply in order to seek to ensure both that adequate consultation takes place between the parties, facilitated by the Engineer, and that, if despite that process agreement cannot be achieved, the matter or claim is resolved within a defined period by the Engineer's determination, failing which it may be referred to a DAAB.

### 3.3.4 Effect of Agreement or Determination

Clause 3.7.4 of the 2017 contracts provides that an agreement or determination is to be binding on both parties, and complied with by the Engineer, unless and until corrected or revised. As pointed out earlier, the parties are also bound by a determination until it is revised in the 1999 editions of the Red and Yellow Books, although not in the 1999 Silver Book, where the Contractor could avoid having to comply with a determination by notifying his dissatisfaction with it within 14 days. This difference may have been attributable to the fact that, in the 1999 edition of the Silver Book, the Employer is able to administer the Contract himself; in any event, the 2017 editions (in which the Employer is never able to administer the Contract himself) have adopted the Red and Yellow Book position.

The 2017 contracts contain a detailed procedure for correcting an agreement or determination for typographical, clerical or arithmetical errors. Clause 3.7.4 enables such errors to be corrected within 14 days after the giving or receiving of the Engineer's notice of agreement or determination. If the Engineer finds the error, he is immediately to advise the parties accordingly; if a party finds it he must give a notice to the Engineer stating that it is given under clause 3.7.4 and clearly identifying the error.[13] If the Engineer then does not agree that there was an error he is immediately to advise the parties accordingly.

Within seven days of his finding the error, or receiving a notice from a party notifying an error, the Engineer must give a notice to both parties of the corrected agreement or determination. Thereafter, the corrected agreement or determination is to be treated as the agreement or determination for purposes of the Contract conditions.

Although clause 3.7.4 thus refers to the Engineer's notifying the parties of the 'corrected agreement or determination' if, on receiving a notice of an error from one or

11 See Section 16.2.

12 See Sections 15.2.10 and 16.2.1.

13 Although no time within which he should do so is indicated, clause 1.3 in the 2017 editions provides that all notices and other types of communication (referred to in the clause) are not to be unreasonably withheld or delayed.

other of the parties, the Engineer decides that there was no error then, as long as he advises the parties accordingly, he is free to decide that the agreement or determination does not require any correcting. Clause 3.7.4 does not deal explicitly with the notifying party's recourse in this situation, but he may be able, if he considers that the Engineer ought to have corrected the agreement or determination, to claim declaratory or other relief under clause 20.1(c) and/or if appropriate money and/or time under clause 20.1(a) and/or (b).

Note that if an agreement or determination concerns the payment of an amount from one party to the other then the Contractor is to include that amount in his next payment statement and the Engineer is to include the relevant amount in the next payment certificate (Red and Yellow Books)/the Employer is to include the relevant amount in his next payment (Silver Book).

### 3.3.5 Dissatisfaction with Engineer's Determination

Clause 3.7.5 deals with the procedure where a party is dissatisfied with the determination of the Engineer. In that event, the dissatisfied party may give a notice of dissatisfaction (NOD) to the other party, with a copy to the Engineer. This NOD must state that it is a notice of dissatisfaction with the Engineer's determination in so many words, and set out the reason(s) for the dissatisfaction. The NOD must be given within 28 days after receiving the Engineer's notice of the determination or, if applicable, his notice of the corrected determination under clause 3.7.4 (or, in the case of a deemed determination rejecting a claim, within 28 days after the time limit for determination under clause 3.7.3 has expired); thereafter, either party may proceed to obtain a DAAB's decision under clause 21.4.

If no NOD is given by either party within the above period of 28 days the determination is deemed to have been accepted by both parties and is expressed to become final and binding on them. This is a contractual time bar, therefore, which can render an Engineer's determination final and binding. Unlike a failure to comply, in the case of a money or time claim, with the initial 28-day notice requirement under clause 20.2 (where in certain circumstances the defaulting party may, in effect, seek an extension of time[14]), the party who fails to give a NOD to a determination in time has no recourse.[15]

Note that if the dissatisfied party is dissatisfied with only part(s) of the Engineer's determination the NOD must clearly identify it/them and the relevant part or parts are to be treated as severable from the remainder of the determination, this remainder then becoming final and binding on both parties as if the NOD had not been given.

The 2017 contracts enable an agreement achieved pursuant to clause 3.7 and an Engineer's determination which has become final and binding to be enforced by providing, in clause 3.7, that if a party fails to comply with such an agreement or with a final and binding determination then the other party may, without prejudice to any

14 See Section 15.2.9.

15 It might be possible to challenge the determination itself on the basis, for example, that the process was flawed in that the Engineer, in the Red and Yellow Books, was not acting neutrally, and then argue that this vitiated the determination so that the failure to give a NOD in time was not fatal to the claim since only a valid determination could be the subject of a NOD. An argument of that kind might succeed in some jurisdictions but there is no procedural mechanism under the contracts for disturbing a determination if no NOD is given in time.

other rights he may have, refer the failure itself directly to arbitration under clause 21.6, thus making the agreement or determination enforceable to the same extent as a final and binding decision of the DAAB.[16]

## 3.4 Meetings

In keeping with the greater emphasis on proactive project management, clause 3.8 (2017 Red and Yellow Books)/3.6 (2017 Silver Book) contains a new right for either the Engineer/Employer or the Contractor's Representative to require the other to attend management meetings to discuss arrangements for future works and/or other matters in connection with the execution of the works. If either so requests, the Employer's other contractors, public authorities, or private utility companies and/or subcontractors may also attend such meetings. The Engineer or Employer is to keep a record of each management meeting and supply copies together with an action list.

16 See Section 16.2.6.

# 4

# The Contractor and Fitness for Purpose

Clause 4 of the 2017 contracts, like clause 4 in their 1999 counterparts, sets out the Contractor's responsibilities under many of the same headings although in somewhat different terms and in more detail.

## 4.1 Contractor's General Obligations

Clause 4.1 in the three Books deals with the Contractor's general obligations.

### 4.1.1 Yellow and Silver Books

The first paragraph of clause 4.1 in the Yellow and Silver Books deals with the design-build Contractor's fitness for purpose obligation.

As mentioned in Section 1.3.3 above, clause 4.1 in the 1999 Yellow and Silver Books imposes on the Contractor the obligation to design, execute and complete the works in accordance with the Contract so that when complete the works will be fit for the purposes for which they are intended 'as defined in the Contract'. This is similar in the 2017 editions, except that the works when completed are to be fit for the purpose or purposes for which they are intended '…as defined and described in the Employer's Requirements (or, where no such purpose(s) are defined or described, fit for their ordinary purpose(s)'.

Thus the fitness for purpose obligation in the 2017 editions of the Yellow and Silver Books is anchored, not in the Contract generally, but in the Employer's Requirements or, in default, in the 'ordinary purposes' of the relevant Works.

### 4.1.2 Red Book

In the 2017 Red Book, if the Contract specifies that the Contractor is to design any part of the permanent works, then, unless the Particular Conditions provide otherwise, the Contractor is responsible for that part and when completed the works must be fit for the purposes for which they are intended as specified in the Contract or, if no such purposes are thus defined and described, fit for their ordinary purposes. The wording is the same in the 1999 edition, except that (like the 1999 Yellow and Silver Books) there is no default provision for the relevant parts to be fit for their ordinary purposes.

Thus in the 2017 Red Book the Contractor comes under a fitness for purpose obligation when the Contract specifies that the Contractor is to design any part of the

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

permanent works and in that case the works are to be fit for the purposes for which they are intended 'as specified in the Contract' or, where they are not so specified, fit for their ordinary purposes. In both editions of the Red Book, therefore, where there are no Employer's Requirements, the Contractor undertakes to complete the relevant parts of the works so that when completed they are fit for any intended purposes which may be specified in the Contract generally.

### 4.1.3 'Fitness for Purpose'

The obligation to produce a finished work or product which is fit for its purpose historically belongs in the English law of contract. If a contractor knows the particular purpose for which the work is to be done, holds himself out to do that sort of work and the employer relies on the contractor in relation to it, then a term will normally be implied into the contract to the effect that the work when complete will be fit for that purpose.

The express terms of the contract may be inconsistent with such a term; for example, where the contractor is obliged only to exercise reasonable skill and care with respect to the result. It will in each case be a matter of construction of the contract as a whole whether the contractor has warranted that the work when complete will be fit for its intended purpose, or whether his obligation is only to exercise reasonable skill and care.

A genuine fitness for purpose obligation is normally regarded as an absolute or strict obligation, the contractor warranting the result, so that regardless of whether he exercised reasonable skill and care if the result is not achieved he is in breach. In *Viking Grain Storage Ltd v T H White Installations Ltd* (1986) 33 BLR 103 Judge John Davies QC summarised the utility of such an implied term as follows:

> 'The virtue of an implied term of fitness for purpose is that it prescribes a relatively simple and certain standard of liability based on the 'reasonable' fitness of the finished product, irrespective of considerations of fault and of whether its unfitness derived from the quality of work or materials or design.'

As the purpose must be known to the contractor it becomes critical to identify where in the contract the intended purpose is described or specified. It is for that reason that the FIDIC forms, in both editions, have anchored the fitness for purpose obligation of the Contractor in either the Contract generally (the 1999 editions and the 2017 Red Book for the relevant parts) or in the Employer's Requirements (2017 Yellow and Silver Books).

By anchoring the obligation in the Employer's Requirements the 2017 Yellow and Silver Books have done a service to the design-build Contractor since it localises the obligation to a specific Contract document, rather than leaving it to the Contract generally to contain or describe the intended purpose or purposes. In a project of any complexity the sheer range of detail contained across numerous documents, not all of which may be consistent with one another, means that, as far as possible, the intended purpose or purposes of the completed works should be taken to be as set out in a specific document or category of documents.[1]

1 In the 2017 Red Book, for the relevant parts, it is open to the parties to agree such documents or document categories in the Particular Conditions. For example, the Specification may be taken as the home

The difficulties that might arise where the intended purpose or purposes are not sufficiently clearly set out are well illustrated in the UK Supreme Court judgment in *MT Højgaard A/S v E.ON Climate and Renewables UK Robin Rigg East Ltd* [2017] UKSC 59.

In that case E.ON engaged MTH to design, fabricate and install pile foundations at an offshore wind farm in the Moray Firth. The contract provided that the works as a whole would be 'fit for [their] purpose as determined in accordance with the Specification using Good Industry Practice'.

The Specification or Technical Requirements document forming part of the contract stated in two paragraphs that the foundations were to have a design or minimum service life of 20 years and that the design should ensure a lifetime of 20 years; that document also said that MTH should undertake the design of the foundations using an international standard published by Det Norsk Veritas (the DNV Standard) which included requirements as to the design of grouted connections.

It subsequently transpired that the DNV standard was defective, in that it contained errors in certain calculations with the result that the grouted connections were not strong enough and the foundations failed.

E.ON argued that MTH had warranted that the foundations would have a service life of 20 years, effectively arguing that they had given such a fitness for purpose warranty; MTH disputed this. Despite finding that the cause of the problem was the error in the DNV standard and that MTH was not at fault in relation to the foundation design, the trial judge found in favour of E.ON on the basis that it had warranted a 20-year service life for the foundations. MTH appealed, succeeding mainly on the basis that, after an exhaustive review of the contract documents, which the Court of Appeal[2] found to have been poorly drafted, there was, on a proper construction of the contract as a whole, no warranty given for the 20-year service life. The Court held that before such a warranty or fitness for purpose obligation could be found there had to be sufficient clarity in the contract documents. If the contractor was to be taken not only to have undertaken to comply with the relevant specifications and standards but also to have undertaken to ensure that a particular result was achieved, the contract as a whole had to be clear enough to support that conclusion, and in the MTH case it was not. The references to the 20-year service life in the two paragraphs of the Technical Requirements document were 'too thin a thread' on which to hang such an obligation.

The Supreme Court reversed the Court of Appeal and held that a 'fitness for purpose' obligation requiring the contractor to achieve a certain result, namely that the foundations would last for 20 years, was to be found in the contract and was to be given its natural effect; it was not inconsistent with the other terms of the contract.

The fact that the two operative paragraphs were tucked away in the technical documents did not mean that they were too slender a thread on which to hang such an obligation, potentially onerous though it was. Despite the poor wording of the contract the Court considered that it was sufficiently clear that MTH was to produce the result that the foundations would have a lifetime of 20 years.

The apparent inconsistency in the contract documents between compliance with the DNV standard and the requirement that the design of the foundations should ensure

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for any identification of the purposes for which the part or parts of the works to be designed by the Contractor are described.

2 [2015] EWCA Civ 407.

a 20-year lifespan was to be viewed, given the provisions of the MTH contract, not as an inconsistency at all but rather as creating a priority between them, so that the more rigorous or demanding of the two standards or requirements was to prevail, the less rigorous being viewed properly as a minimum requirement.

Lord Neuberger, who gave the leading judgment, concluded the main part of his judgment in the following terms ([44]):

> 'While each case must turn on its own facts, the message from decisions and observations of judges in the United Kingdom and Canada is that the courts are generally inclined to give full effect to the requirement that the item as produced complies with the prescribed criteria, on the basis that, even if the customer or employer has specified or approved the design, it is the contractor who can be expected to take the risk if he agreed to work to a design which would render the item incapable of meeting the criteria to which he has agreed.'

While the MTH case thus affirms the English courts' inclination to give full effect to a requirement that an item as produced comply with the relevant contractual criteria, it serves more generally to illustrate the confusion and risk that can result from failing to identify clearly enough the extent of a contractor's duty to produce a result complying with contractual criteria, and thus the extent of any fitness for purpose obligation he might have.

The 2017 FIDIC contractor-design forms improve on the 1999 editions in this respect by confining the scope of the fitness for purpose obligation to what is defined and described in the Employer's Requirements. Where errors exist in these Employer's Requirements which go to the definition of intended purposes of the works or any parts thereof then, in both editions of the Silver Book, by clause 5.1(b) the Employer bears responsibility; despite his otherwise comprehensive responsibility in respect of design-relevant matters in the Silver Book in both editions, the Contractor is not responsible for errors or omissions in the Employer's Requirements which relate to the definition of the intended purposes.[3] By clause 1.9 of the 2017 Yellow Book, as we have seen,[4] the Contractor may be compensated in time and money if, having exercised due care as an experienced contractor, taking account of cost and time, he would not have discovered any error or defect in the Employer's Requirements when submitting the tender or scrutinising the Employer's Requirements under clause 5.1 (including an error or defect relating to the definition of the intended purposes for the works or any part of them).

As noted above, a novel feature of the 2017 Books is the inclusion of the default position that, should the intended purposes of the works not be defined or described in the Employer's Requirements (or, in the Red Book, in the Contract in respect of those parts of the works which the Contractor is to design), the works or relevant part shall be fit for their ordinary purposes. No definition, of course, can be provided for what the 'ordinary purposes' of any works might be in a particular case; ultimately, what these purposes are will be a matter of evidence and the governing law. But it is thought that the inclusion of the default position here is an improvement on the 1999 editions since it provides expressly for the situation which sometimes exists of poorly drafted contracts'

3 See further Section 5.1.

4 See Sections 1.3.3 and 2.5.1 above.

not including a description or definition of intended purposes, either in the Employer's Requirements or similar, or indeed anywhere else in the contract documents.

### 4.1.4 Other General Obligations

Clause 4.1 contains other general obligations on the Contractor and in the same terms in the 2017 Yellow and Silver Books. The Contractor is required to provide the plant and Contractor's documents specified in the Employer's Requirements, all Contractor's personnel, goods and anything else required to fulfil the Contractor's obligations under the Contract. It is also expressly provided that the works are to include any work necessary to satisfy the Employer's Requirements, Contractor's Proposal[5] and Schedules, or which is implied by the Contract, and all works which (even if not mentioned in the Contract) are necessary for stability, or for the completion or safe and proper operation of the works.

The Contractor is also expressly responsible for the adequacy, stability and safety of all his operations and activities, of all methods of construction and of all the works. If required by the Engineer/Employer to do so, the Contractor must submit details of the arrangements and methods which he proposes to adopt for executing the works. No significant alteration to these arrangements and methods are to be made without first submitting it to the Engineer/Employer.

The 2017 Red Book contains similar general obligations and provides for any designs of the permanent works which the Contract specifies the Contractor is to perform. These design-related provisions, in the last paragraph of clause 4.1 in the Red Book, set out requirements for the preparation of Contractor's documents for the relevant parts of the works for the Engineer to review; these documents are to be in accordance with the Specification and drawings, with construction of the relevant parts not to commence until a notice of no-objection is given or deemed to have been given under clause 4.4.1. If the Contractor wishes to modify any designs or Contractor's documents which have previously been submitted for review he must give a notice to the Engineer with reasons. In sub-paragraph (e) there is the obligation described in Section 4.1.2 above in respect of fitness for purpose for the relevant parts, and an undertaking, in sub-paragraph (f), that the designs and the Contractor's documents will comply with the technical standards stated in the Specification and with the applicable law, as well as any other documents forming part of the Contract. There is also provision for as-built records and operation and maintenance manuals to be provided where appropriate and for training of the Employer's personnel in the operation and maintenance of the relevant parts of the works.

## 4.2 Contractor to Provide Performance Security

As with other contracts, the FIDIC forms require the Contractor to provide a performance security in order to secure his proper performance of the Contract. In the 2017

5 The Contractor's Proposal document is a feature of the 1999 and 2007 Yellow Book only. In the 2017 Yellow Book the Contractor's Proposal means (clause 1.1.17) the part of the Tender stated or implied as being the Contractor's Proposal for the execution of the works, as included in the Contract. These documents may include the Contractor's preliminary design. There is no Contractor's Proposal in the Silver Book.

contracts the security must be provided in the amount and currencies stated in the Contract Data; but if no amount is stated the Contractor has no obligation to provide a security. In reality, however, this is one of the most important clauses from an Employer's perspective and is never left blank or overlooked.

The provisions, in clause 4.2, are the same in all three 2017 forms. Clause 4.2.1 requires the Contractor to deliver the security to the Employer within 28 days after the Contract is formed; in the Red and Yellow Books, this is 28 days after the Employer has received the Letter of Acceptance, and in the Silver Book after the parties have signed the Contract Agreement. The security has to be issued by an entity and from within a country or other jurisdiction which the Employer agrees, and has to be in the form annexed to the Particular Conditions, or in another form agreed by the Employer. The Contractor has to ensure that the security remains valid and enforceable until the issue of the Performance Certificate and the Contractor has cleared the site under clause 11.11. Provision is also made for the security to be extended until issue of the Performance Certificate and clearance of the site.

A new flexibility in the amount of security to be provided during the project has been introduced into the 2017 contracts. Where variations or adjustments to the Contract Price result in a cumulative increase or decrease in the Contract Price by more than 20% of the Accepted Contract Amount (Red and Yellow Books), or more than 20% of the Contract Price stated in the Contract Agreement (Silver Book), then (a) in the case of an increase, the Contractor must increase the amount of the security at the Employer's request and (b) in the case of a decrease, may, if the Employer agrees, reduce the amount of the security accordingly.

The FIDIC forms in both editions impose express restraints on the Employer's right to claim under the security. In the 2017 Books at clause 4.2.2 it is expressly forbidden for the Employer to claim under the security unless any of the conditions set out at sub-paragraphs (a)–(e) apply. In summary, these are:

(a) a failure by the Contractor to extend the validity of the security;
(b) Contractor's failure to pay the Employer an amount due as agreed or determined under clause 3.7 (or clause 3.5, Silver Book);
(c) Contractor's failure to remedy a default under a notice to correct pursuant to clause 15.1 within 42 days or such other time as the notice may state;
(d) circumstances entitling the Employer to terminate the Contract under clause 15.2, whether or not a notice of termination has been given; or
(e) Contractor's failure to remedy any defective or damaged plant removed from the site pursuant to clause 11.5 and to return it to the site, reinstall and retest it by expiry of the date stated in the relevant notice, or other date agreed by the Employer.

There is an express obligation on the Employer to indemnify the Contractor in respect of any damage, loss and expense, including legal fees and expenses, resulting from a claim under the security to the extent that the Employer was not entitled to make the claim. Further, any amount received by the Employer under the security is to be taken into account in any payments due to the Contractor.

Clause 4.2.3 in the Books requires the Employer to return the security to the Contractor within 21 days after issue of the Performance Certificate and clearance of the site, or

promptly after the date of termination if the Contract is terminated under clauses 15.5, 16.2, 18.5 or 18.6.[6]

## 4.3 Contractor's Representative

In all three Books, in both editions, the Contractor has to appoint a Representative who is to have all the necessary authority to act on the Contractor's behalf under the Contract, except in respect of replacement of the Representative.

Clause 4.3 in the 2017 Books contains requirements as to the Representative's qualifications, experience and competence and provides for the Engineer's or (in the Silver Book) Employer's consent to the person whom the Contractor proposes to appoint as his Representative. The Contractor must not, without the prior consent of the Engineer or Employer, replace the Contractor's Representative.

It is expressly provided that the Contractor's Representative is to act for and on behalf of the Contractor at all times during the performance of the Contract, including issuing and receiving all notices and other communications and receiving instructions. The Representative should be based at the site for the whole of the time the works are being executed there. There is also provision in clause 4.3 for the Contractor's Representative to delegate his powers, functions and authority, except that he cannot delegate authority to issue and receive notices and other communications or to receive instructions.

## 4.4 Subcontractors

Clause 4.4 of the 2017 Yellow and Silver Books deals with subcontractors other than nominated subcontractors, which are dealt with in clause 4.5 in those Books. The 2017 Red Book deals with nominated subcontractors in clause 5.2[7] in the same terms as clause 4.5 of the other two Books.[8] Other subcontractors are dealt with in clause 5.1 of the 2017 Red Book in the same terms as clause 4.4 of the 2017 Yellow; these are similar to the terms of clause 4.4 of the 2017 Silver Book, except that no consent to the appointment of any subcontractors is required of the Silver Book Contractor whereas (except in respect of materials suppliers or subcontracts for which the subcontractor is named in the Contract) it is for the Red and Yellow Book Contractor.

In clause 4.4 of the three 1999 Books the only prohibition as to the amount of the works which could be subcontracted was that the whole of the works could not be subcontracted; this is different in the 2017 editions. Here, the parties can agree the proportion of the works which may be subcontracted by stating in the Contract Data a limit expressed as a percentage of the Accepted Contract Amount stated in the Contract Data (Red and Yellow Books), or Contract Price stated in the Contract Agreement (Silver Book); if the parties do not agree such a limit, however, the default position is that the Contractor

6 See Chapter 12.

7 Clause 5 of the 1999 Red Book deals with nominated subcontractors only, clause 4. 4 dealing with non-nominated subcontractors.

8 Clause 4.4 of the 2017 Red Book deals with Contractor's documents: see below at Section 4.6.

may not subcontract the whole of the works.[9] Further, the Contract Data may identify parts of the works which are not to be subcontracted.

As with the 1999 editions, it is expressly provided that the Contractor shall be responsible for the work of all subcontractors and for any of their defaults; and in similar terms to the 1999 editions clause 4.4 of the 2017 Yellow Book/clause 5.1 of the Red Book provides for the Contractor to obtain consent from the Engineer for all proposed subcontractors, except suppliers of materials or where the Contract names a subcontractor in relation to a particular subcontract. As noted above, such consent is not required in the 2017 Silver Book.[10]

## 4.5 Nominated Subcontractors

The 2017 contracts cover nominated subcontractors in much more detail than the 1999 editions and provide important protections.

Clause 4.5 of the 2017 Yellow and Silver Books/clause 5.2 Red Book defines a 'nominated Subcontractor' to be a subcontractor named as such in the Employer's Requirements/Specification or whom the Engineer/Employer under clause 13.4 (dealing with provisional sums) instructs the Contractor to employ as a subcontractor. A procedure for objecting to a nomination is set out in clause 4.5.1/5.2.2, the Contractor not being under any obligation to employ a nominated subcontractor whom the Engineer or Employer instructs and against whom the Contractor raises reasonable objection by giving a notice with detailed supporting particulars within 14 days after receiving the relevant instruction. The 2017 contracts help the parties decide if an objection is reasonable by giving examples. An objection is to be deemed to be reasonable if it arises from, among other things, any of the examples given in clause 4.5.1/5.2.2, unless the Employer agrees to indemnify the Contractor against any consequences of the matter. The examples given in clause 4.5.1/5.2.2 are thus not exhaustive. They are, in summary:

(a) that there are reasons to believe the subcontractor does not have sufficient competence, resources or financial strength;
(b) that the subcontract does not specify that the nominated subcontractor is to indemnify the Contractor in respect of any negligence or misuse of goods by the nominated subcontractor, his agents and employees; and
(c) that the subcontract does not specify that, for the subcontracted work, the nominated subcontractor is to undertake back-to-back obligations to those of the Contractor under the main Contract, and is to indemnify the Contractor in respect of all obligations and liabilities arising under or in connection with the main Contract, and from consequences of any failure to perform those obligations or fulfil those liabilities by the subcontractor.

The 1999 editions of the three Books also contain provision for the Engineer or Employer to instruct the Contractor to employ a subcontractor but permit the Contractor to refuse to employ the subcontractor on the basis of a reasonable objection

9 Clause 4.4, Yellow and Silver Books; clause 5.1 Red Book.
10 The 1999 Silver Book also did not require the Contractor to obtain the Employer's consent to the appointment of subcontractors (clause 4.4).

by a notice as soon as practicable, with supporting particulars.[11] The 2017 editions of the three Books thus preserve the Contractor's ultimate right to object to employing a nominated subcontractor, and it is thought that this is the correct position to take since the Contractor ought to have the right of ultimate refusal if he is to take responsibility for the subcontractor's work and indemnify the Employer in respect of it.

The remaining parts of clause 4.5/5.2 contain provisions for ensuring payment to nominated subcontractors. In summary, the Contractor must pay the nominated subcontractor amounts due in accordance with the subcontract and, before issuing a payment certificate/making an interim payment which includes an amount payable to a nominated subcontractor, the Engineer or Employer may request the Contractor to supply reasonable evidence that the nominated subcontractor has received all amounts due in accordance with previous payment certificates/interim payments, less any applicable deductions. There is also provision for direct payments to be made to the subcontractor.

## 4.6 Contractor's Documents: The 2017 Red Book

Clause 4.4 of the 2017 Red Book deals with the Contractor's documents[12]; in the 2017 Yellow and Silver Books these are dealt with in clause 5.2.[13]

Red Book clause 4.4.1 defines the Contractor's documents as comprising those stated in the Specification; those required to satisfy all permits, permissions, licences and other regulatory approvals which are the Contractor's responsibility under clause 1.13; those described in clauses 4.4.2 (dealing with as-built records) and 4.4.3 (dealing with operation and maintenance manuals); and any required under clause 4.1 (a) (relating to those parts of the works which the Contractor is to design under the Contract).

In both editions of the Red Book, and also the Yellow Book, the Employer's personnel have the right to inspect the preparation of all the Contractor's documents wherever they are being prepared. This is unlike the Silver Book in both editions, where the Employer has no such right.

Clause 4.4.1 of the 2017 Red Book sets out a procedure for review of the Contractor's documents by the Engineer. If the Specification, or the general conditions, so specify, the Contractor must submit the relevant document for review together with a notice stating that it is ready for review and complies with the Contract. There is then a 21-day period for the Engineer to respond by giving a notice to the Contractor, either not objecting to the document or identifying the respects in which it fails to comply with the Contract, with reasons. It is important that the Engineer give his response within the 21 days since if he fails to do so clause 4.4.1 deems the Engineer to have notified his non-objection to the document. If the Engineer duly notifies an objection/fault with the document then the Contractor has to revise and resubmit it for review, the Engineer to respond within 21 days from the date he receives the revised document.

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11 Clause 4.5 1999 Yellow and Silver Books, clause 5.2 Red Book. No guidance on what is a reasonable objection is provided in the 1999 forms.

12 In the 1999 edition of the Red Book the only provisions specifically concerning Contractor's documents are clauses 1.1.6.1 (defining them) and 1.10 (dealing with the Employer's use of them); clause 4.4 in the 2017 edition introduces a review procedure and other features which previously were present only in the Yellow and Silver Books.

13 See Section 5.2.

Note that in the 2017 Red Book the Contractor is not obliged to hold back from commencing work on those parts of the works requiring Contractor's documents to be submitted for review until a notice of no-objection is given or is deemed to have been given for the relevant documents. This contrasts with the position under clause 5.2 of the 2017 Yellow and Silver Books, where (except in respect of as-built records and operation and maintenance manuals) the Contractor is not permitted to commence work until the no-objection notice is given or deemed to have been given.

Clauses 4.4.2 and 4.4.3 of the 2017 Red Book deal with as-built records and operation and maintenance manuals respectively, and set out obligations on the Contractor which only apply if the Specification requires the Contractor to prepare such records or manuals. In summary, the Contractor has to prepare and keep up to date a complete set of as-built records and manuals, which are to be submitted to the Engineer for review.

## 4.7 Cooperation

The three 2017 forms contain provisions at clause 4.6 requiring the Contractor, as specified in the Employer's Requirements (Yellow and Silver Books) or Specification (Red Book), or as instructed by the Engineer/Employer, to cooperate with and allow appropriate opportunities for carrying out work by the Employer's personnel, other contractors employed by the Employer and the personnel of any legally constituted public authorities and private utility companies. The Contractor must also coordinate his construction activities on the site and use all reasonable endeavours to coordinate these activities with those of any other contractors to the extent, if any, specified in the Employer's Requirements (Yellow and Silver Books) or Specification (Red Book), or as instructed by the Engineer/Employer.

In the 2017 forms the Contractor may claim an extension of time and/or additional payment if he suffers delay and/or incurs cost as a result of any instruction under clause 4.6 to the extent that the cooperation, allowing of opportunities and coordination was unforeseeable having regard to what was specified in the Employer's Requirements or Specification.

The 1999 forms contain similar provisions as to cooperation, but differ from the 2017 editions in that in the 1999 forms an instruction by the Engineer or Employer to, for example, provide appropriate opportunities to the Employer's personnel for carrying out work, is to constitute a variation if and to the extent that it caused the Contractor to incur unforeseeable cost. This has been changed in the 2017 editions, where it is for the Contractor to claim, pursuant to clause 20.2, if he incurs delay and/or cost to the extent that the instructed cooperation, allowing of opportunities and coordination were unforeseeable.

## 4.8 Quality Management and Compliance Verification Systems

The three 2017 contracts contain, in clause 4.9 and in the same terms, provision for the Contractor to prepare and implement a quality management system and compliance

verification system. This is a novel feature of the 2017 editions in keeping with the greater emphasis placed by the new contracts on effective project management.

### 4.8.1 Quality Management System

Quality management (QM) systems are widely used in a range of industries to help coordinate and direct an organisation's activities to ensure that required quality standards are consistently achieved. By clause 4.9.1 of the FIDIC 2017 Books the Contractor must prepare and implement a QM system to demonstrate compliance with the requirements of the Contract. The QM System has to be specifically prepared for the works and submitted to the Engineer or Employer within 28 days of the commencement date; it has to comply with any details stated in the Employer's Requirements (Yellow and Silver Books) or Specification (Red Book); and must include the Contractor's procedures to ensure that:

(a) all notices and other communications, the Contractor's documents, as-built records, operation and maintenance manuals and contemporary records can be traced with complete certainty to the Contract works, the goods, work, workmanship or tests to which they relate;
(b) there is proper coordination and management of the interfaces between the stages of execution of the works, and between subcontractors; and
(c) the Contractor's documents are duly submitted to the Engineer/Employer for review.

The Engineer/Employer may give a notice to review and require the Contractor to revise the QM system to rectify any non-compliance and at any time he may require the Contractor to remedy any failure to implement it. The Contractor must also carry out internal audits of the QM system regularly and at least every six months, and has to submit a report listing the results of such an audit within seven days of completing it. Each report must also include any proposed measures to improve or rectify the system or its implementation. If the Contractor is required by his quality assurance certification to be subject to an external audit then he must immediately notify the Engineer/Employer, describing any failings identified in the audit.

### 4.8.2 Compliance Verification

In addition to a QM system the Contractor must prepare and implement a Compliance Verification System (CVS) to demonstrate that the design, materials, Employer-supplied materials, if any, plant, work and workmanship comply in all respects with the Contract (clause 4.9.2). The CVS must comply with the details stated in the Employer's Requirements, if any (or, in the Red Book, the Specification) and include a method for reporting the results of all inspections and tests carried out by the Contractor. The procedure in clause 7.5 (dealing with defects and rejection)[14] applies in the event that any inspection or test shows non-compliance with the Contract. The Contractor must also prepare and submit to the Engineer/Employer a complete set of compliance verification documentation for the works, fully compiled and collated as described in the Employer's

14 See Section 6.2.3.

Requirements/Specification or, if there is no such description, in whatever manner is acceptable to the Engineer/Employer.

A general provision is added at clause 4.9.3 to the effect that compliance with the QM system and/or CVS does not relieve the Contractor of any duty, obligation or responsibility under or in connection with the Contract; thus the Contractor's full range of duties, obligations or responsibilities are unaffected by the additional requirements of preparing and implementing quality management and compliance verification systems.

The QM and CVS requirements in the 2017 contracts are potentially quite onerous and add to the administrative burden on both parties. The advantages of introducing quality management and compliance verification procedures into the new forms were thought to outweigh this potential disadvantage; but, if they wish, the parties may agree to whatever extent they think appropriate to modify or exclude these procedures in the Particular Conditions. If, for example, the Contractor is subject to an external audit for his quality assurance certification special provision may be made for this in the Particular Conditions.

## 4.9 Use of Site Data

As described in Section 3.1.5 above, clause 2.5 of the 2017 contracts provides for the Employer to provide the Contractor with site data and items of reference, both at tender stage and subsequently. Clause 4.10 deals with the Contractor's responsibility in respect of the site data referred to in clause 2.5.

As might be expected, the Yellow and Red Books deal with this topic differently from clause 4.10 in the Silver Book.

- *Silver Book*

In the Silver Book, the Contractor is stated to be responsible for verifying and interpreting all data made available by the Employer under clause 2.5. The Contractor's responsibility is thus to *verify,* or ascertain the correctness or accuracy of, the site data as well as interpreting them.

- *Yellow and Red Books*

In the Yellow and Red Books, the Contractor's responsibility is to interpret the data, not to verify them. Clause 4.10 in the two Books do require the Contractor to obtain, and deems that he has obtained, all necessary information as to risks, contingencies and other circumstances which may influence or affect the tender or the works, but this is only to the extent that doing so was practicable, taking account of cost and time; to that same extent, the Contractor is deemed to have inspected and examined the site, access to the site, its surroundings, the above data and any other available information and to have satisfied himself before submitting the tender as to all matters relevant to the execution of the works.

The matters referred to above are expressed to include:

(a) the form and nature of the site, including sub-surface conditions;
(b) the hydrological and climatic conditions and the effects of climatic conditions at the site;

(c) the extent and nature of the work and goods necessary for executing the works;
(d) local laws, procedures and labour practices; and
(e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and any other utilities or services.

Thus the Contractor under the Yellow and Red Books is not responsible for the accuracy of any site data provided to him by the Employer under clause 2.5; and the extent to which he is expected to have assessed the risks and other circumstances affecting the works (including inspecting the site) is limited by what it was reasonably practicable for the Contractor to do, having regard to cost and time. This contrasts sharply with the Contractor under the Silver Book, who takes the entire risk that the site data provided by the Employer are accurate as a feature of his general assumption of risk in respect of any matters affecting the works. If the Yellow or Red Book Contractor encounters, for example, sub-surface conditions which, despite his taking all practicable steps having regard to cost and time to ascertain them beforehand, cause him delay or additional cost then he is likely to be able to claim an appropriate extension of time or payment under clause 4.12 for unforeseeable physical conditions, subject to complying with the various notice requirements in the clause; clause 4.12 of the Silver Book, by contrast, leaves the Contractor with express responsibility for any and all such risks.

## 4.10 Unforeseeable Difficulties/Physical Conditions

- *Silver Book*

In the Silver Book in both editions the Contractor bears the risk of any difficulties affecting the works even if unforeseeable. The terms of clause 4.12 in the 2017 edition (nearly identical to clause 4.12 in the 1999 edition) could not be clearer. Unless otherwise stated in the Particular Conditions, the Contractor is to be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the works; by signing the Contract Agreement he accepts 'total responsibility' for having foreseen all difficulties and costs of successfully completing the works; and the Contract Price is not to be adjusted to take account of any unforeseeable or unforeseen difficulties or costs.

The proviso above relating to the Particular Conditions enables the parties to agree exceptions to the comprehensive responsibility taken on by the Silver Book Contractor in respect of difficulties which could not reasonably be foreseen at the outset of the project. The parties quite often agree such exceptions, which will depend on the bargaining power of the Contractor and the extent or range of the exceptions. If agreed, any exceptions to the Contractor's responsibility under clause 4.12 must (like any other amendments to the general conditions) be carefully worded to ensure that they are both internally consistent and consistent with the unamended conditions.

- *Yellow and Red Books*

Clause 4.12 of the 2017 Yellow and Red Books entitles the Contractor to claim an extension of time and/or a payment if he encounters unforeseeable physical conditions resulting in delay and additional cost. The clause (first paragraph) defines 'physical conditions' to mean any natural physical conditions and physical obstructions, whether

natural or man-made, and pollutants which the Contractor encounters at site during execution of the works, including sub-surface and hydrological conditions.

It is to be noted that climatic conditions at the site and their effects are expressly excluded from the list of relevant physical conditions for purposes of clause 4.12. Climatic conditions are dealt with separately in the two Books; in clause 8.5, dealing with extensions of time.[15] One of the causes of delay which might attract an extension of time under clause 8.5 is exceptionally adverse climatic conditions which were unforeseeable having regard to the climatic data provided to the Contractor under clause 2.5 and/or published in the relevant country for the particular location of the site. This follows the pattern in the 1999 editions of the Yellow and Red Books which also deal with climatic conditions separately, and in particular enable the Contractor (under clause 8.4) to claim an extension of time but not any payment; whereas if unforeseeable physical conditions are encountered the Contractor may be able to claim (under clause 4.12) additional money as well as time. The 2017 editions thus follow the 1999 editions of the Red and Yellow Books in enabling the Contractor to claim an extension of time, but not any money, if he encounters exceptionally adverse climatic conditions.

### 4.10.1 Unforeseeable Physical Conditions: Procedure

Clause 4.12 in the 2017 Yellow and Red Books provides that if the Contractor encounters physical conditions, as just defined, which he considers unforeseeable and to have an adverse effect on progress and/or increase the cost of the works then the procedure set out in clauses 4.12.1–4.12.5 will apply.

In summary, the Contractor after discovering the adverse physical conditions must (clause 4.12.1):

(a) give a notice to the Engineer in sufficient time to enable him to inspect and investigate the physical conditions promptly and before they are disturbed;
(b) describe the physical conditions so that they can be inspected or investigated promptly by the Engineer;
(c) give reasons why the Contractor considers the physical conditions to have been unforeseeable; and
(d) describe the manner in which the physical conditions will adversely affect the progress and/or increase the cost of the works.

The Engineer is then (by clause 4.12.2) to inspect and investigate the physical conditions within seven days or whatever longer period might be agreed with the Contractor, after receiving the notice. The Contractor is to continue executing the works, using whatever proper and reasonable measures are needed for the physical conditions and to enable the Engineer to inspect and investigate them.

Clause 4.12.3 requires the Contractor to comply with any instructions of the Engineer for dealing with the physical conditions; if such an instruction constitutes a variation then clause 13.3.1 applies.

Under clause 4.12.4, if the Contractor suffers delay and/or incurs cost due to the above physical conditions, having complied with clauses 4.12.1–4.12.3 he may, subject to complying with clause 20.2, dealing with claims for money or time, claim an extension of time and/or payment of such cost.

15 See Section 7.6.

Clause 4.12.5 then provides that the agreement or determination of the Contractor's claim[16] should include consideration of whether the physical conditions were indeed unforeseeable and if so to what extent; and the Engineer may also review whether other physical conditions, in similar parts of the works, were more favourable than could reasonably have been foreseen by the Base Date. To the extent that these more favourable conditions, if any, were indeed encountered the Engineer may take into account the reductions in cost due to those conditions in calculating the additional cost to be paid to the Contractor, subject however to the proviso that the net effect of any additions and reductions will not result in a net reduction in the Contract Price. The Engineer may also take account of any evidence of the physical conditions foreseen by the Contractor by the Base Date (which the Contractor may include in his supporting particulars for the fully detailed claim he has to provide under clause 20.2.4[17]), but the Engineer will not be bound by this evidence.

## 4.11 Other Contractor's Obligations

Clause 4 in all three 2017 Books covers a range of other obligations on the Contractor. These are the Contractor's obligation (clause 4.7) to set out the works in relation to the items of reference referred to in clause 2.5; the Contractor's obligations (clause 4.8) with respect to health and safety, including complying with all applicable safety regulations and laws and any specified in the Contract; his obligation (4.14) not to interfere unnecessarily or improperly with the convenience of the public or the access to and use and occupation of roads, footpaths and the like; obligations (4.15–4.17) with respect to access routes, transport of goods and equipment; protection of the environment (clause 4.18); responsibility for temporary utilities (4.19); security of the site (4.21); his operations on site (4.22) and in respect of archaeological and geological findings (4.23). Clause 4.5 of the 2017 Red Book contains a clause setting out the Contractor's obligation with respect to training of employees of the Employer and/or other identified personnel, but only if this is required in the Specification.[18]

In the three 2017 Books the Contractor undertakes to bear the costs of and charges for special and/or temporary rights of way required for the works, including those for access to the site (4.13) and is deemed to have satisfied himself, at the Base Date, about the suitability and availability of access routes to the site, with any damage to and maintenance of access routes for use of the Contractor to be his responsibility.

The Contractor is also deemed in the Red and Yellow Books to have satisfied himself as to the correctness and sufficiency of the Accepted Contract Amount and in the Silver Book the Contract Price stated in the Contract Agreement (clause 4.11).

Clause 4.20 deals with progress reports, and sets out the Contractor's obligation to provide monthly reports in the format stated in the Employer's Requirements/the Specification or, in default, as instructed by the Engineer/Employer. These reports are an important means of monitoring progress and have to be provided until

16 Under clause 20.2.5: see Section 15.2.7.

17 See Section 15.2.5.

18 Clause 5.5 of the 2017 Yellow and Silver Books contains similar requirements as to training: see below at Section 5.3.

completion. Each report must include, unless otherwise stated in the Employer's Requirements/Specification, a range of listed details, including charts, diagrams and detailed descriptions of progress; expected or actual dates of commencement of manufacture, shipment and arrival for each major item of plant and materials; copies of quality management documents; a list of variations; health and safety statistics; and comparisons of actual and planned progress with details of any events or circumstances which might delay completion according to the programme and any measures taken or to be taken to overcome delays. To avoid the ambiguity that sometimes arises under the 1999 editions, it is expressly provided that nothing stated in any progress report is to constitute a notice under the Contract.

# 5

# Design

Clause 5 of the 2017 Yellow and Silver Books sets out the Contractor's obligations with respect to design and deals with certain other design-related matters.[1]

## 5.1 Contractor's General Design Obligations

Clause 5.1 of the 2017 Yellow Book provides that the Contractor is to carry out and be responsible for the design of the works. The Contractor in the 2017 Silver Book has the same obligation and in addition responsibility for the accuracy of the Employer's Requirements.

In both Books clause 5.1 is to be read in conjunction with:

(a) clause 4.1, by which the Contractor undertakes to execute the works so that when completed they will be fit for the purposes for which they are intended as defined and described in the Employer's Requirements (or in default, their ordinary purposes); and
(b) clause 5.3, by which the Contractor undertakes that the design, the Contractor's documents, the execution of the works and the completed works will be in accordance with local laws and the documents forming the Contract, as altered or modified by variations.

### 5.1.1 Silver Book: Errors in Employer's Requirements

In both editions of the Silver Book the Contractor is deemed (by clause 5.1) to have scrutinised, prior to the Base Date, the Employer's Requirements, including design criteria and calculations, if any, and is to be responsible for the accuracy of the Employer's Requirements with certain limited exceptions. The only circumstances in which the Employer is to be responsible for the accuracy or completeness of the Employer's Requirements, or of any data or information received by the Contractor from or on behalf of the Employer, are:

(a) where portions, data or information are stated in the Contract to be immutable or the responsibility of the Employer; or

1 To the extent that the Contractor under the 2017 Red Book has design responsibility for any part or parts of the works this will be specified in the Contract: clause 4.1 (and see Section 4.1.2 above).

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

(b) where the issue concerns definitions of intended purposes of the works or any parts of them; or
(c) criteria for the testing and performance of the completed works; or
(d) where portions, data and information cannot be verified by the Contractor, [2] unless the Contract otherwise provides.

This wording follows closely the wording in clause 5.1 of the 1999 Silver Book, in particular confining the exceptions to the Contractor's responsibility to the four sub-paragraphs (a)–(d) above.

### 5.1.2 Silver Book: Designs by Employer

The 1999 Silver Book places the risk of loss or damage to the works, goods or Contractor's documents resulting from designs of any part of the works by the Employer, or others for whom he is responsible, on the Contractor. Thus, whereas clause 17.3(g) of the 1999 Yellow Book places the risk of any such loss or damage on the Employer (the Contractor being entitled to claim an appropriate extension of time and/or cost), there is no such provision in the 1999 Silver Book. The *FIDIC Guide* to the 1999 contracts explains this omission on the basis that design is intended to be entirely at the Silver Book Contractor's risk. [3] In the 2017 Silver Book, however, the risk of loss or damage resulting from designs provided by or on behalf of the Employer is now placed on the Employer by a new clause 17.2(c), as will be examined below in Chapter 13. This represents a significant shift of risk in favour of the Contractor.

### 5.1.3 Silver Book: Design Personnel

Clause 5.1 (third paragraph) of the 2017 Silver Book contains an undertaking by the Contractor that the design will be prepared by designers who are engineers or other suitably qualified, experienced and competent professionals in the disciplines of the design for which they are responsible; will comply with the criteria, if any, stated in the Employer's Requirements; and will be qualified and entitled under applicable laws to design the works. The1999 Silver Book contains no undertaking of this kind.

The 1999 Yellow Book, on the other hand, contains an undertaking by the Contractor to the effect not only that the design will be prepared by qualified designers complying with any criteria stated in the Employer's Requirements, but also that (unless otherwise stated) he will obtain the consent of the Engineer to the proposed designers and design subcontractors.

The Contractor's undertaking in clause 5.1 of the 2017 Silver Book does not go so far as to require such consent, whereas this is still required in the 2017 Yellow Book, but otherwise the two Books are now very similar in respect of their requirements for design personnel.

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2 The interpretation of these exceptions and their application in particular cases will depend on the Contract's governing law but it may be difficult to decide, for example, what 'cannot be verified by the Contractor' might in practice mean; a Contractor with unlimited resources and time might, for example, be in a better position to verify data and information than one operating under more usual time and budget constraints. A satisfactory alternative wording has nevertheless proved elusive.
3 *FIDIC Guide*, p. 275.

### 5.1.4 Yellow Book: Errors in Employer's Requirements

The 2017 Yellow Book Contractor, like his Silver Book counterpart, undertakes by clause 5.1 to carry out and be responsible for the design of the works. However, unlike the Silver Book, the Yellow Book Contractor is, broadly speaking, not responsible for errors or omissions in the Employer's Requirements which an experienced contractor exercising due care would not have discovered at certain times defined by the Contract.

(i) The 1999 Yellow Book

The 1999 Yellow Book Contractor is required under clause 5.1 to scrutinise the Employer's Requirements upon receiving notice of the commencement date. If in the course of this scrutiny he discovers any errors, faults or defects in the Employer's Requirements he must give notice of them within the time period stated in the Appendix to Tender calculated from the commencement date. The Engineer is then to determine whether the error would have been discovered by an experienced contractor exercising due care when examining the site and scrutinising the Employer's Requirements before submitting the tender. If such a hypothetical contractor would have discovered the error when scrutinising the Employer's Requirements at that stage then the Contractor will not be entitled to an extension of time or adjustment to the Contract Price. If, on the other hand, the hypothetical contractor would not have discovered the error then clause 13 (dealing with variations) applies and the Contractor is entitled, without making a claim, to an adjustment to the Price and an extension of time if delay and/or additional cost was incurred by reason of the error.

The 1999 Yellow Book also deals with the situation that arises where the error is not discovered as the Contractor scrutinises the Employer's Requirements under clause 5.1 but discovers the error at a later stage. Clause 1.9 provides that so long as the error would not have been discovered by an experienced contractor exercising due care when scrutinising the Employer's Requirements under clause 5.1, the Contractor may claim, under clause 20.1, an extension of time for any resulting delay and/or cost plus profit.

Thus under the 1999 Yellow Book the Contractor has two opportunities to obtain additional time and/or money where there are errors in the Employer's Requirements: first at the stage of scrutiny of the Requirements following notice of commencement of the works under clause 5.1, and again under clause 1.9 after that stage is past. In each case the test for the Contractor's entitlement is applied by reference to a hypothetical experienced and careful contractor. In the first case, however, the Contractor's entitlement is by way of a variation under clause 13 and in the second by way of a claim under clause 20.1.

Under clause 5.1 in the 1999 Yellow Book the Contractor as well as scrutinising the Employer's Requirements is to scrutinise the items of reference specified in the Contract or notified by the Engineer to enable the Contractor to set out the works under clause 4.7. Errors in these items of reference are to be notified along with those in the Employer's Requirements within the period specified in the Appendix to Tender; and the entitlement of the Contractor to additional time or money is to be determined by applying the same test, of the hypothetical experienced and careful contractor, as applies in the case of errors in the Requirements themselves.

(ii) The 2017 Yellow Book

In the 2017 Yellow Book, clause 5.1 distinguishes errors in the items of reference specified in the Employer's Requirements from other errors in the Employer's Requirements.

In the former case, clause 4.7, relating to setting out, applies, with its own timetable in respect of such errors discovered by the Contractor and the steps to be taken as a result of them (see *Clause 4.7: errors in items of reference* below). In the latter case, of errors of other kinds, clause 1.9 applies.

- *Clause 1.9*

Clause 1.9 in turn now covers errors in the Employer's Requirements (other than in respect of items of reference) discovered both as the Contractor scrutinises the Requirements under clause 5.1 and where such errors are discovered at a later stage. In terms similar to clause 5.1 in the 1999 edition, if the Contractor finds an error as he scrutinises the Employer's Requirements under clause 5.1 he is to give a notice to the Engineer within the period stated in the Contract Data calculated from the commencement date; unlike the 1999 edition, however, the new clause 1.9 provides for a default period of 42 days for such a notice to be given.

The second paragraph of clause 1.9 then provides that if, after expiry of this period, the Contractor finds an error he is also to give a notice to the Engineer describing it.

The Engineer is then to proceed under clause 3.7 to agree or determine:

(a) whether there is indeed an error in the Employer's Requirements;
(b) whether, taking account of cost and time, an experienced contractor exercising due care would have discovered it either:
    (i) when examining the site and the Employer's Requirements before submitting the tender; or
    (ii) if the Contractor's notice relating to the error is given after expiry of the above period stated in the Contract Data, or in default 42 days, when scrutinising the Employer's Requirements under clause 5.1; and
(c) what measures if any the Contractor is required to take in order to rectify the error.

If under the above sub-paragraph (b) an experienced and careful contractor would not have discovered the error then the Contractor is entitled, if he suffers delay and/or incurs cost as a result of the error, to claim an extension of time and/or payment of such cost plus profit; and any measures he is required to take in consequence of the error are to be treated as variations under clause 13.3.1. The Contractor will thus be entitled to an appropriate extension of time and/or adjustment to the Contract Price in respect of such measures, without making a claim under clause 20.2.

Thus, in summary, under the 2017 Yellow Book:

(a) if the Contractor finds an error, fault or defect in the Employer's Requirements as a result of scrutinising them at commencement of the works pursuant to clause 5.1 then clause 1.9 is to apply, unless the error concerns items of reference specified in the Employer's Requirements, in which case clause 4.7 applies (see below *Clause 4.7: errors in items of reference*);
(b) if the error does *not* concern items of reference, and clause 1.9 therefore applies, the Contractor is to give a notice to the Engineer within the period stated in the Contract Data (or if not so stated, 42 days) and the Engineer must then proceed under clause 3.7 to agree or determine whether there is indeed an error and whether, taking account of cost and time, an experienced contractor exercising due care would have discovered it when examining the site and the Employer's Requirements before submitting the tender;

(c) if the error is detected only after the 42 days, or whatever period may be stated in the Contract Data, then, upon the Contractor's giving a notice describing the error, the Engineer is to consider whether an experienced contractor scrutinising the Employer's Requirements under clause 5.1 and exercising due care would have discovered it;
(d) in either case, only if the hypothetical experienced and careful contractor would not have discovered the error will the Contractor be entitled to claim an extension of time and/or cost plus profit in respect of any delay or additional cost incurred as a result of the error. Any measures he is required to take in consequence of the error are to be treated as variations under clause 13.3.1.

- *Clause 4.7: errors in items of reference*

If the error in the Employer's Requirements *does* concern items of reference included therein, so that clause 4.7 applies, then the Contractor must also give a notice to the Engineer describing it within the period stated in the Contract Data calculated from the commencement date (or if not so stated, 28 days). After receiving the notice the Engineer is to proceed, as with clause 1.9, to agree or determine under clause 3.7 whether there is indeed an error and whether an experienced contractor exercising due care would have discovered it either (a) when examining the site and the Employer's Requirements before submitting the tender or (b) if the Contractor's notice is given after expiry of the period stated in the Contract Data (or 28 days in default), when scrutinising the Employer's Requirements under clause 5.1. If such a contractor would not have discovered the error the Contractor under clause 4.7 may claim an extension of time and/or cost plus profit if he suffers delay and/or incurs cost as a result, and any measures he is required to take in order to deal with the error are to be treated as a variation under clause 13.3.1.

- *A single code*

Clauses 1.9 and 4.7 of the 2017 Yellow Book thus set out a single code for dealing both with a claim, if any, for an extension of time and/or payment as a result of errors in the Employer's Requirements and for any entitlement of the Contractor under clause 13.3.1 to an extension of time and/or payment in respect of measures required in order to deal with the error. This may be thought to be an improvement on the 1999 edition, in which the questions whether the Contractor is entitled to additional time or money for delay/additional cost incurred as a result of the error and/or by way of a variation for measures taken in order to deal with it are treated separately and in a rather complicated way in clauses 5.1 and 1.9.

### 5.1.5 Yellow Book: Designs by Employer

As mentioned in Section 5.1.2 above, the risk of loss or damage to the works, goods or Contractor's documents resulting from any design provided by or on behalf of the Employer is in both editions of the Yellow Book placed on the Employer, by contrast with the 1999 (but not the 2017) Silver Book.

### 5.1.6 Yellow Book: Design Personnel

Clause 5.1 of the 2017 Yellow Book, like the third paragraph of that clause in the 2017 Silver Book, provides for designs to be prepared by designers who are engineers or other

suitably qualified, experienced and competent professionals in the disciplines of the design for which they are responsible; who will comply with the criteria, if any, stated in the Employer's Requirements; and who will be qualified and entitled under applicable laws to design the works. This is an improvement on the 1999 edition, where the clause 5.1 requirements do not include ensuring that the designers are well qualified and entitled under local laws to design the works.[4]

Clause 5.1 in the 2017 Yellow Book is very similar to 5.1 in the 1999 edition: approval is needed by the Engineer for the proposed designers and the Contractor expressly warrants that the Contractor, his designers and design subcontractors have the experience, capability and competence necessary for the design.

## 5.2 Contractor's Documents: 2017 Yellow and Silver Books

Clause 5.2 of the 2017 Yellow and Silver Books is in very similar terms and provides for the Contractor to prepare certain categories of documents defined as Contractor's documents and to submit such documents, where required in the Employer's Requirements, for review by the Engineer/Employer.[5]

The Contractor's documents are defined in the first paragraph of that clause to comprise those specified in the Employer's Requirements; those required to satisfy all permits, permissions, licences and other regulatory approvals which are the Contractor's responsibility under clause 1.13; and those described in clauses 5.6 and 5.7, relating to as-built records and operation and maintenance manuals respectively.

Clause 5.2.1 sets out the Contractor's obligation to prepare all the Contractor's documents and any other documents necessary to complete and implement the design during execution of the works, and to instruct the Contractor's personnel.

A feature of the 2017 Yellow Book, which it shares with its 1999 predecessor, is that the Employer's personnel have the right to inspect the preparation of all the above documents wherever they are being prepared. This contrasts with the Silver Book in both editions, where no such right exists. The reason for this difference is that the Silver Book was introduced in 1999 as a new form under which the Contractor was intended to have the freedom to carry out the works in his chosen manner, with the Employer having more limited scope for supervision and control than under the Yellow Book.[6] Thus, for example, the 1999 Silver Book contains no reference to the qualifications or characteristics of the designers engaged by the Contractor and no requirement for the Employer to approve the proposed designers, whereas these steps are required by clause 5.1 of the 1999 Yellow Book. This has been mitigated in the 2017 edition of the Silver Book, as we have seen,[7] but there are still features of the Silver Book in its new version which reflect the more hands-off approach of the 1999 edition.

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4 As noted in Section 5.1.3 above, the 1999 Silver Book contains no reference to the qualifications or characteristics of the designers engaged by the Contractor, the Contractor being taken simply to assume all the relevant risks under clause 5.1.

5 The way in which Contractor's documents are dealt with in the 2017 Red Book is described in Section 4.6 above.

6 See, for example, 'An Overview of the FIDIC Contracts' by Christopher Wade, chairman of the FIDIC Contracts Committee responsible for the 1999 editions, pp. 6-8 (paper delivered at the ICC-FIDIC Conference in Cairo, April 2005).

7 See Section 5.1.3 above: the Contractor is now required under clause 5.1 to engage designers who have certain qualifications, experience and competence (although not to obtain approvals for them).

Clause 5.2.2 sets out the procedure for review by the Engineer or Employer. Within a period of 21 days, or whatever other period may be stated in the Employer's Requirements, the Engineer/Employer must give a notice to the Contractor either (a) of no-objection to the Contractor's document or (b) to identify the extent to which it has failed to comply with the Employer's Requirements and/or the Contract, with reasons. As with the Red Book,[8] if the Engineer gives no notice within the above review period he is to be deemed to have given a notice of no-objection, subject to the proviso that any other Contractor's document to which that particular document relates has also been given or deemed to have been given a notice of no-objection.

The Engineer/Employer may instruct further Contractor's documents to be provided if needed in order to show that the Contractor's design complies with the Contract, and these have to be prepared at the Contractor's cost.

If the Engineer/Employer gives a notice identifying faults in the relevant document then the Contractor has to revise that document and resubmit it to the Engineer/Employer for review; this review period is calculated from the date when the Engineer/Employer receives the document. The Contractor is not to be granted any extension of time for delay caused by such a revision and resubmission/subsequent review. If, on the other hand, the Employer incurs additional cost as a result of the resubmission and subsequent review, he is entitled, subject to making a claim under clause 20.2, to payment of the costs reasonably incurred from the Contractor.

An important provision in clause 5.2.3 prevents the Contractor from commencing any work in respect of the part or parts of the works requiring Contractor's documents to be submitted for review, with the exception of as-built records and operation and maintenance manuals. For that reason, the Engineer's/Employer's response within the review period is crucial and is reinforced by the deeming provision in clause 5.2.2 referred to above.

The Contractor may modify any design or Contractor's documents previously submitted for review, by giving a notice to the Engineer/Employer with reasons; but if the Contractor has begun work on a relevant part of the works then he must alter or suspend that work and the review provisions in clause 5.2.2 will apply as if the Engineer/Employer had given a notice objecting to or finding fault with the relevant document. Work on the relevant part is not to resume until a notice of no-objection is given or deemed to have been given in respect of the revised documents.

Thus a detailed procedure for preparation and review of the Contractor's documents is set out in the 2017 Yellow and Silver Books, reinforced by time limits and deeming provisions. It is thought that this represents an improvement on the 1999 editions by tightening up and defining more clearly the steps described in clause 5.2 of those Books.

## 5.3 Other Design-related Provisions

In both 2017 Books, as noted above, clause 5.3 contains the Contractor's undertaking that the design, the Contractor's documents, the execution of the works and the completed works will be in accordance with local laws and the documents forming the Contract, as modified by variations. There is a related obligation in clause 5.4 of both

8 See Section 4.6 above.

Books for the Contractor's documents, the execution of the works and the completed works to comply with local technical standards and other applicable laws and regulations. If there are changes in the applicable standards after the Base Date the Contractor must notify the Engineer/Employer and may be entitled to treat as a variation any proposals for complying with the new standards which the Engineer/Employer regards as required in order for the works to be executed.

Clauses 5.5, 5.6 and 5.7 of both 2017 Books deal respectively and in similar terms with training of the Employer's employees and others, the Contractor's obligations to prepare and keep up to date as-built records and operation and maintenance manuals.

Clause 5.8 of the 2017 Books contains in the same terms provision as to design errors, omissions, ambiguities and other defaults or defects in the Contractor's design and/or the Contractor's documents. Any such errors and the works are to be corrected under clause 7.5, dealing with defects and rejection of plant, materials and workmanship.[9] If the relevant Contractor's documents had previously been the subject of a notice of no-objection then they are to be treated now as if the Engineer/Employer had given a notice objecting or identifying defects in the relevant documents; and it is expressly provided that any corrections and resubmissions are to be at the Contractor's risk and cost.

9 See Section 6.2.3 below.

# 6

# Plant, Materials and Workmanship/Staff and Labour

Clauses 6 and 7 of the three 2017 forms deal respectively with staff and labour and with plant, materials and workmanship.

## 6.1 Staff and Labour

The provisions relating to staff and labour in clause 6 are substantially the same in all three contracts and set out obligations on the Contractor with respect to engagement of staff and labour on the project, compliance with labour laws, working hours, facilities, health and safety of personnel engaged on the Contract as well as other provisions relating to the Contractor's supervision, misconduct and the keeping of records. Similar provisions are to be found in clause 6 of the 1999 editions, the novel feature of the 2017 forms being the introduction of a new clause 6.12 dealing with 'Key Personnel'.

The Employer may specify key personnel in the Employer's Requirements or (if Red Book) the Specification and if so the Contractor is to appoint the natural persons named in the tender to the positions of key personnel. They have to be based at the site, or if works are being executed off site at the relevant location, for the whole of the time that the works are being executed. The aim is to promote better management of the project by having key individuals based continuously on site who are known to the Engineer or Employer. The individuals have to be named in the tender or, if not so named, or if an appointed person for some reason fails to act in the relevant key position, the Contractor has to submit to the Engineer or Employer for his approval the name and details of another person to take that particular position.

## 6.2 Plant, Materials and Workmanship

The three 2017 Books contain virtually identical provisions concerning plant and materials used on the project, and workmanship.

The wording of clause 7.1 is the same in all three 2017 Books. The Contractor is to carry out the manufacture, supply, installation, testing and commissioning and/or repair of plant, the production, manufacture, supply and testing of materials, and all other operations and activities during the execution of the works (a) in whatever manner may be specified in the Contract; (b) in a proper workmanlike and careful manner,

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

in accordance with recognised good practice; and (c) with properly equipped facilities and non-hazardous materials, unless the Contract otherwise specifies.

The obligations described at (a)–(c) above appear in the same terms in clause 7.1 of the 1999 editions. The Contractor must comply with any relevant provisions of the Contract, including any standards specified. He also has a more general obligation to carry out the relevant supply, activities or operations 'in a proper workmanlike and careful manner, in accordance with recognised good practice'. These words are undefined, and may give rise to some uncertainty as the Engineer or Employer tries to apply them to plant and materials supplied and work executed without any clear test of compliance. Some guidance may however be provided by the common law origins of the expressions.

- *A workmanlike manner*

The obligation to execute the work in a proper workmanlike and careful manner takes effect in English law as the duty normally implied in a building contract to execute the work with all proper skill and care.[1]

The degree of skill required of the Contractor will depend on all the circumstances, including whatever skill he expressly or by implication holds himself out to have. The FIDIC Contractor holds himself out to have the degree of skill required to fulfil all his obligations under the Contract with respect to the completed works, by giving the undertakings and warranties contained in clause 4.1 and elsewhere.[2] The implied exercise of skill and care will normally be a continuing duty during construction and this is expressly so in the opening paragraph of clause 7.1, which provides for the Contractor to carry out the supply and installation of plant and materials and any other activities or operations during the execution of the works. In applying the workmanship obligation to the particular case, the Engineer or Employer in the FIDIC forms is moreover assisted by the words '…in accordance with recognised good practice', as what is recognised as good practice may often be indicated by applicable local and international standards or practices.

- *Skill and care*

The implied duty to exercise skill and care extends to selecting materials without patent defects and, provided it is not inconsistent with the terms of the contract, to supplying materials which are reasonably fit for their intended purpose and of good quality. The obligation to supply materials which are of good quality may make the contractor liable for latent defects, even if the contractor was not at fault in selecting the materials or even if the materials were chosen by the employer. Thus in *Young & Marten v McManus Childs* the contractor was liable in respect of latent defects in roofing tiles which had been selected by the employer's experienced agent and which the contractor had competently installed; it was held that the contractor was still responsible for supplying tiles of merchantable or saleable quality.[3] The FIDIC Contractor's liability in respect of latent defects is examined below.[4]

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1 See the leading case of *Young & Marten v McManus Childs* [1969] 1 AC 454 at [465].

2 For example, clause 5.1 of the Yellow and Silver Books; see also the terms of the standard contract documents (tender, letter of acceptance and/or contract agreement) annexed to the three Books.

3 [1969] 1 AC 454.

4 See Section 9.6 below.

### 6.2.1 Execution, Samples and Inspection

Clause 7.2 in the 2017 contracts provides for the Contractor to submit certain samples of materials to the Engineer or Employer for consent prior to their use[5]; in the Red and Yellow Books (but not in the Silver) these samples include manufacturers' standard samples of materials as well as any specified in the Contract or instructed. The provision of samples and the need to obtain consent enable the Engineer or Employer to monitor and maintain a degree of control over the quality and specification of the materials.

For similar purposes the Employer's personnel have rights under clause 7.3 of the 2017 contracts to access any parts of the site and any places from which natural materials are being obtained; to carry out examinations or inspections, including measurements and tests of materials, plant and workmanship during production, manufacture and construction; and to carry out any other duties and inspections specified in the Employer's Requirements or (if Red Book) the Specification, or elsewhere in the Contract conditions.[6] To ensure that the Engineer or Employer is able actually to carry out inspections and the like the Contractor must give a notice whenever any materials, plant or work is ready to be inspected etc. and before it is covered up, put out of sight or packaged for storage or transport[7]; if he fails to give this notice he may be required to uncover the relevant work and thereafter reinstate it and make it good at his own risk and cost. In order to ensure that the Contractor is not left waiting too long, the Employer's personnel must either inspect etc. without unreasonable delay or the Engineer or Employer must promptly notify the Contractor that he does not require to do so. If no such notice is given and/or the Employer's personnel do not attend at whatever time is stated in the notice given by the Contractor, or agreed with him, the Contractor may proceed with the covering up, packaging and the like.

### 6.2.2 Testing by the Contractor

Clause 7.4 of the 2017 contracts provides a procedure for any testing specified in the Contract, other than any tests after completion.[8] These tests will include testing during the works of plant, materials or other parts of the works as well as the tests taking place at taking over. The Contractor is responsible for providing all the necessary equipment and other assistance to carry out the specified tests and ensure they are correctly calibrated. He must give a notice to the Engineer or Employer stating a reasonable time and place for the testing to take place, which the Engineer/Employer may vary as well as the details of the specified tests or indeed instruct additional tests; these changes will be treated as variations under clause 13 and therefore entitle the Contractor (without having to make a claim under clause 20.2) to an extension of time and/or adjustment to the Contract Price, unless however any varied or additional tests show that the tested plant, materials or workmanship is not in accordance with the Contract (in which case the cost and any delay incurred in carrying out the variation is to be borne by the Contractor).

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5 Samples are also required to be submitted by clause 7.2 of the 1999 editions; note the difference in wording between the Yellow and Silver Books (which provide for review) and the Red Book (providing for obtaining the Engineer's consent).

6 Clause 7.3 of the 1999 forms also provides for right of access and inspection/testing.

7 In the 2017 Silver Book this obligation to notify is qualified by the words 'In respect of the work which the Employer's Personnel are entitled to examine, inspect, measure and/or test…'

8 See Chapter 8.

The Engineer/Employer must be able to attend the tests and accordingly clause 7.4 sets out a procedure for notice to be given to the Contractor, of not less than 72 hours, of his intention to attend the tests. The Contractor may proceed with the tests if the Engineer/Employer does not attend at the time and place stated in the Contractor's notice referred to above, and they will be deemed to have taken place in his presence, unless the Contractor is instructed to arrange the tests for a different time and place; in which case the Contractor may claim an extension of time and/or payment for delay and/or cost incurred as a result.[9] If the Contractor causes delay to specified (including varied or additional) tests the Employer may claim any costs incurred by him in consequence.

After the tests have been carried out the Contractor has to send to the Engineer/Employer certified reports of the tests which, if passed, must be endorsed or other certification provided by the Engineer/Employer to that effect. If the Engineer or Employer has not attended the tests he will be deemed to have accepted the readings as accurate. Where a test is not passed, clause 7.5 applies (see next Section).

Thus the Contractor is protected from undue changes in the arrangements for testing, by the right to claim or to have treated as a variation such changes, and the Engineer/Employer is given appropriate opportunity to attend and monitor the testing, with adverse consequences if he delays or fails to attend.

### 6.2.3 Defects and Rejection

Clause 7.5 of the 2017 contracts sets out the procedure which applies for any plant, materials, design or workmanship which is found to be defective or otherwise noncompliant as a result of any examination, inspection, measurement or testing.[10]

The Engineer or Employer must give a notice to the Contractor describing whatever has been found to be defective and the Contractor is obliged promptly to prepare and submit a proposal for any necessary remedial work. This is then reviewed by the Engineer/Employer, who, within 14 days, may give notice to the Contractor stating the extent to which the proposed work would not result in compliance. If he gives no such notice within the 14 days the Engineer/Employer is deemed to have given a notice of no-objection to the proposal. If a notice is given, however, the Contractor is obliged to submit a revised proposal, and if the Engineer/Employer gives no further notice of non-compliance within 14 days he is deemed to have given a notice of no-objection to the revised proposal.

If the Contractor does not promptly submit a proposal or revised proposal, or if he fails to carry out proposed remedial work to which the Engineer/Employer has given or is deemed to have given a notice of no-objection, the Engineer/Employer may instruct the Contractor under clause 7.6 to execute remedial work (see Section 6.2.4 below) or reject the design, plant, materials or workmanship by giving a notice to the Contractor with reasons; in that case, clause 11.4[11] will apply. This step is a serious one, as clause 11.4 permits the Engineer/Employer to impose a time limit on the Contractor, failure to achieve which may result in the works being carried out by others or ultimately in termination.

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9 He may also claim (fifth paragraph) in respect of other delays for which the Engineer/Employer is responsible.

10 Clause 7.5 in the 1999 editions deals with this topic substantially differently from the 2017 editions and in terms of a right to reject the affected plant, materials, design or workmanship.

11 See Chapter 9.

Assuming the Contractor does remedy the relevant defect, the Engineer/Employer may require the relevant item to be retested; if so, the retesting will take place in accordance with clause 7.4 at the Contractor's risk and cost. The Employer may also be able to claim payment from the Contractor if the rejection and retesting cause him to incur additional costs.

### 6.2.4 Remedial Work

Clause 7.6 of the 2017 contracts gives the Engineer/Employer the right to instruct the Contractor, at any time before issue of the Taking-Over Certificate, to (i) repair or remedy, or remove from site and replace any non-compliant plant or materials, or (ii) repair or remedy or remove and re-execute any other work which does not comply with the Contract and (iii) carry out any remedial work urgently required for the safety of the works for whatever reason. Clause 7.6 of the 1999 contracts also provides for a right in the Engineer or Employer to instruct remedial works.

The Contractor must comply with the instruction as soon as practicable and no later than whatever time may be specified in the instruction; or immediately if urgency is specified.[12] The Contractor has to bear the cost of all remedial work required under the clause, except to the extent that any urgent remedial work required for the safety of the works is (a) attributable to the Employer or his personnel or (b) to an Exceptional Event under clause 18.4.

If (a) above applies, the Contractor may claim time and/or money under clause 20.2 for any delay or cost incurred in carrying out such urgent work, and if (b) applies the Contractor will be able to obtain additional time and/or money pursuant to clause 18.4, dealing with Exceptional Events. If the Contractor fails to comply with the Engineer's or Employer's instruction then, at the Employer's sole discretion, he may employ others to carry out the work and, except to the extent that the Contractor would have been entitled to payment for work under clause 7.6, the Employer may claim under clause 20.2 payment of all cost arising from that failure without prejudice to any other rights he might have, under the Contract or otherwise. Thus the Employer may claim under the clause and also pursuant to any other rights he may have under the Contract or governing or other applicable law.

### 6.2.5 Ownership of Plant and Materials/Royalties

Clause 7.7 of the 2017 contracts sets out provisions relating to the ownership of plant and materials, identifying when they become the property of the Employer. This is important as it may, for example, depending on the governing law, indicate when risk passes to the Employer in respect of goods delivered to site but not yet incorporated into the works. The clause provides that, to the extent consistent with the mandatory rules of the local law, each item of plant and materials becomes the property of the Employer at whichever is the *earlier* of the following times, free from liens and other encumbrances:

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12 This wording is similar to that of clause 7.6 of the 1999 Red and Yellow Books (second paragraph); the same clause in the 1999 Silver Book differs by stating no time by which the Contractor is to comply with the instruction, referring instead to clause 3.4 (dealing with instructions). The 2017 contracts remove this discrepancy.

(a) when it is delivered to the site;
(b) when the Contractor is paid the value of the plant and materials under clause 8.11 (dealing with payment for plant and materials after suspension of the works by the Employer); or
(c) when the Contractor is paid the amount determined for the plant and materials under clause 14.5 (dealing with plant and materials intended for the works).[13]

Thus, for example, when a consignment of cement intended for use in the works is delivered to the site the Employer thereupon acquires title to the consignment even if the Contractor receives payment for the consignment some time later. The proviso that the transfer of title must be consistent with the mandatory rules of the applicable local law must always be borne in mind as different jurisdictions may have quite different rules as to the passing of title and the related risk.

Finally, clause 7.8 of the 2017 contracts provides that, subject to anything to the contrary stated in the Employer's Requirements or (if Red Book) the Specification, the Contractor must pay all royalties, rents and other payments for natural materials obtained from outside the site and for the disposal of materials from demolitions or excavations and other surplus material, except to the extent that disposal areas within the site are specified in the Employer's Requirements/Specification.[14]

13 The corresponding provisions of clause 7.7 of the 1999 contracts identify, as the two relevant times, delivery to site and entitlement to payment in respect of plant and materials under clause 8.10 (in the event of a suspension).
14 Clause 7.8 of the 1999 contracts refers more generally to disposal areas specified in 'the Contract'.

# 7

# Commencement, Delays and Extensions of Time, and Employer's Suspension of the Works

## 7.1 Commencement

In the FIDIC contracts in both editions the formal commencement of the works is dealt with in clause 8.1.

In the 1999 Red and Yellow Books the Engineer must give the Contractor seven days' notice of the commencement date. The commencement date itself must be within 42 days after the Contractor receives the Letter of Acceptance, unless otherwise stated in the Particular Conditions. In the 2017 edition of the Red and Yellow Books a similar timetable applies, except that the notice period is 14 rather than seven days.

In the 1999 Silver Book, clause 8.1 provides that the commencement date must be notified to the Contractor by the Employer and, unless otherwise stated in the Contract Agreement, the commencement date must be within 42 days after the date when the Contract came into full force and effect, as stated in the Contract Agreement.[1] The notice must be given at least seven days prior to the commencement date. Thus in the 1999 Silver Book the seven-day notice must be given within 42 days of the effective date of the Contract. In the 2017 edition, the notice has to be given within 14 days prior to commencement, as with the 2017 Red and Yellow Books.

The second paragraph of clause 8.1 in the three 2017 Books requires the Contractor to commence the execution of the works on, or as soon as is reasonably practicable after, the commencement date. He must then proceed with the works 'with due expedition and without delay'.

It should be noted that this obligation to proceed with due expedition and without delay is separate from the obligation to complete the works within the time for completion referred to in clause 8.2 and the obligation to proceed in accordance with the programme under clause 8.3 (see Sections 7.2 and 7.3 below). The obligation to proceed 'without delay' means that the Contractor is not to delay in progressing the works, what such delay might be in a particular case depending on the facts. The interpretation of 'due expedition' does not appear as straightforward, and will depend ultimately on the governing law. However, 'due' suggests a degree of expedition appropriate to achieving some end or purpose, which would appear to be the completion of the works, so that

1 In both editions of the Silver Book, the Contract Agreement – the execution of which signifies the formation of the Contract – may contain conditions which need to be fulfilled before the Contract comes into full force and effect. These conditions might, for example, include the finalisation of financing arrangements. The Contract is formed when the Contract Agreement is signed but it may be expressed to come into full force and effect only when certain conditions are fulfilled.

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

proceeding with 'due expedition' is proceeding with such expedition as is appropriate for achieving completion by the completion date.

If the Contractor fails to proceed without delay and due expedition the Engineer or Employer may be entitled to instruct the Contractor under clause 8.7[2] to submit a revised programme describing revised methods for expediting progress and completing the works within the relevant time for completion at the Contractor's risk and cost, including potentially compensating the Employer for any costs he has incurred in respect of the lack of progress. The free-standing obligation to proceed with due expedition and without delay may, depending on the governing law, give rise to a claim for compensation if the Contractor fails so to proceed. Moreover, under clause 15.1 the Engineer or Employer may issue a notice to correct for a breach of the obligation, requiring the Contractor to make good the breach within a specified time; failure to comply might give rise to a ground of termination for Contractor's default under clause 15.2.1(a)(i). Additional such grounds might arise under 15.2.1(b) (plainly demonstrating an intention not to continue performance of the Contractor's obligations under the Contract) and/or 15.2.1(c) (without reasonable excuse failing to proceed with the works in accordance with clause 8).[3]

## 7.2 Time for Completion

Clause 8.2 of the three 2017 Books contains the Contractor's express obligation to complete the whole of the works and each section, if any, within the time for completion for the works or section, including completion of all work stated in the Contract as required for the works or section to be considered complete for purposes of taking over under clause 10.1.

The contracts thus provide for sectional completion, a 'Section' being defined to mean a part of the works specified as such in the Contract Data.[4] Sectional completion is typically specified where the Employer requires use and occupation of a part or parts of the overall works at different times, with each section having its own commencement and completion times and testing regime. The Contract Data contain a table for the definition of any sections, including a description of the part or parts of the works to be designated as sections. The table also provides for the value of the relevant work to be expressed as a percentage of the Accepted Contract Amount (Red and Yellow Books) or Contract Price stated in the Contract Agreement (Silver Book). The Contract Data should also specify the time for completion of each section and the delay damages applicable to it under clause 8.8.

## 7.3 The Programme

The control of time is a central feature of any project and the 2017 FIDIC Books have engaged with this in far greater detail than the 1999 editions. This is nowhere clearer than in the additional emphasis placed on the use of the programme.

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2 See Section 7.8.3 below.

3 See Section 12.1 below.

4 2017 Yellow Book clause 1.1.76; clause 1.1.66, 2017 Silver Book and clause 1.1.73, 2017 Red Book.

The 1999 editions said relatively little about the contents of the programme, least of all the 1999 Silver Book, which required few details beyond the intended order of the works, review periods under clause 5.2, the sequence and timing of inspections and tests and a supporting report containing a general description of the Contractor's methods and certain details about the personnel to be deployed and the type of equipment to be used in each major work stage. The 1999 Yellow and Red Books went a bit further, requiring more detail about the Contractor's intended order of works and (in the Yellow Book) the review periods under clause 5.2, but it was left to the Employer's Requirements or Particular Conditions for any substantial flesh to be put on these bones.

This is very different in the 2017 editions, where the requirements for the programme are highly detailed and uniform across the three Books.

Clause 8.3 deals with the programme in each of the 2017 Books. The first paragraph requires that the Contractor submit an initial programme within 28 days after receiving notice of commencement of the works. This programme must be prepared using programming software stated in the Employer's Requirements or (if the Red Book) the Specification; or, if not so stated, then using programming software which is acceptable to the Engineer/Employer. Thus there is provision both for software to be used in the Contract programme and for agreement on this at the outset.[5] The first paragraph of the clause also expressly requires that any revised programme reflect accurately the actual progress of the works; this is not an express requirement in the 1999 editions, which state merely that a revised programme is required whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations.

### 7.3.1 Contents of the Initial and any Revised Programme

These are described in the second paragraph of clause 8.3 in the three 2017 Books in very similar terms. The initial programme and each revised programme to be submitted to the Engineer/Employer is to include an extensive list of details, which may be added to.

Among the details set out in clause 8.3 are that the programme must show the commencement date and time for completion; the date for giving right of access to and possession of each part of the site; the intended order of execution of the works, including testing and commissioning; the review periods under clause 5.2.2; the sequence and timing of inspections and tests; logic links between all activities, showing earliest and latest start and finish dates, any float and the critical path or paths; all key delivery dates of plant and materials; and a supporting report to include a description of all major stages of execution of the works, a general description of the Contractor's methods, estimates of the number and type of his personnel and equipment required on site for each major work stage and, if a revised programme, identifying any significant changes to the previous programme and the Contractor's proposals to overcome the effects of any delays to progress.

A particularly noticeable change between the 1999 and 2017 Books is the requirement, in sub-paragraph (g), for all activities (to the level of detail specified in the Employer's Requirements or (if Red Book) Specification) to be logically linked and showing the earliest and latest start and finish dates for each activity, any float and the critical path

5 Part of this software may well make use of building information modelling (BIM) systems to coordinate design and other activities. The Guidance at the back of the 2017 Books contains an advisory note to users of the contracts where BIM is used.

or paths. The level of detail required should be proportionate to the complexity of the project. The activities are to be logically linked, that is, each activity is to be linked to both a predecessor and successor activity, with the earliest and latest start and finishing dates for each activity to be shown.[6] If the Contractor has allowed for any float, that is, any time for completing an activity in addition to its planned duration so as to allow a margin or cushion for unexpected occurrences, this must also be shown, together with the critical path.[7]

Other important changes in the 2017 contracts are that:

(a) greater detail is required of the Contractor's intended order of carrying out the works;
(b) a revised programme is to show (i) the sequence and timing of remedial work, if any, to which a notice of no-objection has been given under clause 7.5 and/or remedial work instructed under clause 7.6 and (ii) for each activity, the actual progress to date, any delay to such progress and the effects of such delay on other activities;
(c) key delivery dates for plant and materials are to be shown;
(d) greater detail is required of the supporting report, including the Contractor's proposals for overcoming the effects of any delays and, where there is a revised programme, identifying significant changes to a previous programme.

Moreover, the third paragraph of clause 8.3 requires the Engineer/Employer to review the initial programme and each revised programme. 'Review' is a defined expression and means '… examination and consideration by the Engineer [Employer] of a Contractor's submission in order to assess whether (and to what extent) it complies with the Contract and/or with the Contractor's obligations under or in connection with the Contract'. Thus the Engineer/Employer must positively examine and consider the initial programme and any revised programme in order to assess the extent to which it complies with the terms of the Contract or the Contractor's obligations under it. Having done so, he is required to give a notice to the Contractor if there is any failure of compliance, identifying the extent of the non-compliance or the extent to which the programme no longer reflects actual progress, or is otherwise inconsistent with the Contractor's obligations.

There are time limits for this notice: the Engineer/Employer must give it (a) within 21 days after receiving the initial programme or (b) within 14 days after receiving a revised programme. If he fails to give the notice within the relevant time he will be deemed to have given a notice of no-objection, and the initial programme or revised programme will be taken to be the Contract programme.[8] The Contractor is then to proceed in

6 For a discussion of logic links and their use in a contractor's programme see the UK Society of Construction Law's Protocol on Delay and Disruption, 2nd edition, February 2017 ('the SCL Protocol') paras 1.39–1.64 and the definitions and examples at Appendix A. The SCL Protocol is widely recognised internationally to provide helpful guidance on the treatment of delay and related issues.

7 The critical path is normally taken to be the longest sequence of activities from commencement to completion of the works, such that, if delay is caused to an activity on the critical path, the completion of the works overall is delayed unless steps are taken to accelerate or re-sequence the relevant activities: see SCL Protocol paras 1.45–1.49 and Appendix A. Contractors may wish not to show their planned float in their proposed programme for fear that the Engineer or Employer may try to have the float removed or activities re- sequenced to reduce it when reviewing the programme in order to save time. The degree of detail required by the Employer's Requirements or Specification and/or the specified software may, however, make network links showing any planned float inevitable.

8 This is defined as the detailed time programme prepared by the Contractor to which the Engineer or Employer has either given or is deemed to have given a notice of no-objection under clause 8.3 (clause 1.1.67

accordance with the programme, subject to his other obligations under the Contract, and the Employer's personnel are entitled to rely on the programme when planning their activities.

Thus the 2017 contracts impose an express reviewing obligation on the Engineer/Employer, accompanied by a requirement to notify the Contractor within defined time periods of any non-compliance with the Contract or the Contractor's obligations under it. This is of a piece with the increased emphasis on the programme as a positive tool for managing the project and contrasts with the 1999 editions, where the Engineer/Employer has no express reviewing obligation; all that is said is that, if the Engineer/Employer does not within 21 days after receiving a programme give a notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor is to '… proceed in accordance with the programme, subject to his other obligations under the Contract'.

Enhancing the programme as a project management tool enables progress to be monitored more effectively and the impact of delaying events to be more accurately assessed or predicted, which may in turn lead to more appropriate steps being taken to, for example, mitigate delays. It also enables any applications for extensions of time to be dealt with more effectively, and in particular may encourage the parties to assess the impact of any delaying events as the works proceed, rather than at a later date. This should help with extension of time applications, which can be made and dealt with closer in time to the occurrence of the relevant events: as opposed to, in the words of the SCL Protocol, taking a 'wait and see' approach.[9] In the 2017 Books this 'contemporaneous approach' is reinforced by the enhanced claims procedure under clause 20.2, which imposes new requirements on making claims and time limits (for example, in respect of giving full details of a claim).[10]

It might be thought unduly onerous on the Contractor to require him to provide a programme as detailed as clause 8.3 prescribes within 28 days. The general conditions try to strike a balance between the need to give the Contractor sufficient time to prepare the initial programme and the need to ensure that the Contract programme is prepared and reviewed as soon as reasonably possible after commencement. However, it is perfectly open to the parties to agree a longer period if desired and this is expressly covered in the Guidance given at the back of the FIDIC Books on preparing the Particular Conditions (Part B), which contains a useful summary of FIDIC's general attitude to the time periods stated in the general conditions:

> 'Each time period stated in the General Conditions is what FIDIC believes is reasonable, realistic and achievable in the context of the obligation to which it refers, and reflects the appropriate balance between the interests of the Party required to perform the obligation, and the interests of the other Party whose rights are dependent on the performance of that obligation. If consideration is given to changing any such stated time period in the Special Provisions (Particular

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in the 2017 Yellow Book/1.1.66, 2017 Red Book/1.1.57, 2017 Silver Book). A notice of no-objection in turn has the effect of enabling the relevant document to be used for the works (clause 1.1.55, 2017 Yellow Book/1.1.55 2017 Red Book/1.1.47, 2017 Silver Book).

9 See the SCL Protocol, section 4, Guidance on Core Principles Part B.

10 See Chapter 15 below.

Conditions – Part B), care should be taken to ensure that the amended time period remains reasonable, realistic and achievable in the particular circumstances.'

### 7.3.2 Other Provisions: Clause 8.3

The last two paragraphs of clause 8.3 provide that (a) nothing in any programme including the Contract programme or any supporting report is to be taken to amount to a notice under the Contract or to relieve the Contractor of any obligation to give such a notice and (b) if the Engineer or Employer gives a notice to the Contractor that the programme fails to comply with the Contract, to a specified extent, or no longer reflects actual progress or is otherwise inconsistent with the Contractor's obligations, the Contractor must within 14 days after receiving the notice submit a revised programme to the Engineer/Employer in accordance with clause 8.3. Thus without having to request a revised programme in the circumstances mentioned in (b) above, the Engineer/Employer can expect within the 14-day period to receive a compliant revised programme.

## 7.4 Advance Warning

Under clause 8.3 of the 1999 editions the Contractor is obliged to warn the Engineer/Employer of probable future events or circumstances which may adversely affect the works, increase the Contract Price or delay execution of the works. The Engineer/Employer has no corresponding obligation. In the 2017 editions of the Red and Yellow Books, however, clause 8.4 obliges each party to advise the other and the Engineer, and the Engineer is obliged to advise the parties, in advance of any known or probable future events or circumstances which may:

(a) adversely affect the work of the Contractor's personnel;
(b) adversely affect the performance of the works when completed;
(c) increase the Contract Price; and/or
(d) delay the execution of the works or a section.

In clause 8.4 of the 2017 Silver Book the obligation is on each party only to advise the other, but is otherwise in the same terms.

Having become aware of a known or probable future adverse event, the Engineer/Employer may request the Contractor to submit a proposal under clause 13.3.2 to avoid or minimise the effects of the event. This is similar to the position in the 1999 editions, where the Engineer/Employer might require the Contractor to submit an estimate of the anticipated effects of the future events and/or a proposal under clause 13.3, dealing with variations.

The obligation under the 2017 editions is therefore a mutual one, with the parties in the Red and Yellow Books being obliged both to advise each other and the Engineer of the relevant events or circumstances. The Engineer, moreover, has an obligation to advise the parties himself of any such events or circumstances. This may create liabilities on the Engineer if he fails to advise the parties of any known or probable future events

or circumstances, depending on the governing law; the Contractor might, for example, have some recourse against the Engineer if he is prejudiced by the Engineer's failure to comply with this duty to warn.

The mutuality of the advance warning obligation, coupled with its increased scope, should encourage greater cooperation in avoiding or mitigating the effects of adverse events or circumstances, and can be seen as part of the overall move towards a more proactive and engaged approach to ensuring successful outcomes in the 2017 contracts.

## 7.5 Extensions of Time

Providing for the Contractor to extend the time for completion of the works if events or circumstances arise for which the Contractor is not responsible and which delay completion is a feature of many standard form contracts. In the 2017 FIDIC forms clause 8.5 provides for the Contractor to be entitled, subject to making a claim under clause 20.2, to an extension of time if and to the extent that completion of the works is or will be delayed by any of a list of causes. This list sharply differs between the Red and Yellow Books on the one hand and the Silver Book on the other, to reflect their sharply different risk allocation.

### 7.5.1 Yellow and Red Books

Clause 8.5 of the 2017 Yellow Book provides that the Contractor is entitled, subject to clause 20.2, to an extension of time (EOT) if and to the extent that completion for the purposes of taking over under clause 10.1 'is or will be delayed' by any of the following causes:

(a) a variation (except that in that case there is no requirement to make a claim);
(b) a cause of delay giving rise to an entitlement to an EOT under another clause of the Contract;
(c) exceptionally adverse climatic conditions, which means adverse climatic conditions at the site which are unforeseeable having regard to climatic data made available by the Employer under clause 2.5 and/or climatic data for the geographical location of the site, published in the country where it or most of it is located and the permanent works are to be executed;
(d) unforeseeable shortages in the availability of personnel or goods (or Employer-supplied materials, if any) caused by epidemic or governmental actions; or
(e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's personnel, or the Employer's other contractors on the site.

When determining each EOT claimed under clause 20.2 the Engineer is also to review previous determinations and may increase, but can never decrease, the total EOT allowed. Clause 8.4 in the 1999 edition, final paragraph, contains a similar provision.[11]

Clause 8.5 of the 2017 Yellow Book goes on to provide that, if a delay caused by a matter which is the Employer's responsibility is concurrent with a delay caused by a matter which is the Contractor's responsibility, the Contractor's entitlement to an EOT is to

11 This applies in all three of the 1999 Books.

be assessed according to whatever rules and procedures may be stated in the Special Provisions[12] or, if none is stated, as appropriate taking due regard of all relevant circumstances.[13]

The wording of clause 8.5 in the 2017 Yellow Book is the same as in clause 8.5 of the 2017 Red Book, except that the Red Book contains an additional entitlement relating to substantial increases in the measured quantity of any item of work as against estimated quantities. The second paragraph of clause 8.5 in the Red Book provides that the Contractor may claim an EOT if the measured quantity of any work item is greater than its estimated quantity in the Bill of Quantities or other Schedule by more than 10%, and such increase causes delay to completion. When agreeing or determining such a claim the Engineer may also review measured quantities of other items which are significantly less (i.e. by more than 10%) than the corresponding estimated quantities in the Bill or other Schedule. If there are such lesser measured quantities the Engineer may take account of any favourable effect on the critical path, but the net effect of any such consideration will not result in a net reduction in the time for completion.

This additional basis of entitlement is also a feature of the 1999 Red Book, which provides, in rather more general terms, for the Contractor to be entitled to an extension of time in respect of a '… substantial change in the quantity of an item of work included in the Contract'. This wording leaves it open what was meant by 'substantial change'. The 2017 wording removes that source of dispute; it also, as just described, enables the Engineer to see if other items of work show a decrease of more than 10% or more as between measured and estimated quantities and whether, if so, that has any favourable effect on the critical path (with the proviso that there should be no resulting net reduction in the time for completion).

### 7.5.2 Silver Book

By clause 8.5 of the 2017 Silver Book the Contractor is, subject to clause 20.2, entitled to an EOT if and to the extent that completion is or will be delayed by:

(a) a variation (with again no requirement to claim);
(b) a cause of delay giving rise to an entitlement to an EOT under another clause; or
(c) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's personnel, or the Employer's other contractors on site; or
(d) any unforeseeable shortages in the availability of Employer-supplied materials, if any, caused by epidemic or governmental actions.

The first three causes of delay described above also apply in the 1999 Silver Book (clause 8.4), but the 2017 Silver Book has added a fourth cause (tucked away in parentheses in sub-paragraph (c) of clause 8.5) relating to unforeseeable shortages in any Employer-supplied materials caused by epidemic or government actions. The new Silver Book is therefore to this extent more generous to the Contractor.[14]

Again, when determining an EOT claim the Employer's Representative is to review previous determinations under clause 3.5 and may increase, but cannot decrease, the total EOT awarded.[15]

12 There is no such provision in the 1999 edition.
13 See further Section 7.7 below.
14 See further Section 7.6.4 below.
15 As noted above, this also applies in the 1999 Silver Book (clause 8.4).

As in the other two Books, provision is also made for apportioning responsibility for a delaying cause. If a delay caused by something which is the Employer's responsibility is concurrent with a delay for which the Contractor is responsible the EOT entitlement is to be assessed in accordance with any rules and procedures stated in the Special Provisions or, if not stated, as appropriate taking due regard of all relevant circumstances.

### 7.5.3 Completion

The completion that must be delayed by a relevant event or circumstance before an extension of time may be awarded is completion in the sense of taking over under clause 10.1; this is made clear in the opening line of clause 8.5 in the three Books ('… completion for the purposes of Sub-Clause 10.1') and is consistent with clause 8.2, which defines the Contractor's obligation to complete the whole of the works and any section within the time for completion including all work required for the works or section to be considered complete for purposes of taking over under clause 10.1.

- *'is or will be delayed…'*

As in the 1999 editions, an extension may be granted if completion *is or will be* delayed by a relevant cause. Thus the relevant cause may either (a) have actually caused or begun to cause delay to completion or (b) will in the future cause such a delay. Since the future cannot be predicted with certainty the task of the Engineer or Employer in the latter case is to assess as reliably as possible the delay likely to result from the relevant cause; and since the relevant delay is to completion, the cause must be on the critical path. The Contract programme, provided it has been updated in accordance with clause 8.3, will be a natural starting point for determining the critical impact of the event or circumstance and thus the extent of the delay attributable to it. A delay analysis using the programme software and/or other techniques may be considered appropriate, but sophisticated programming analysis is not essential and its usefulness in some cases has been doubted.[16]

By entitling the Contractor to an extension of time where the delaying effect of a relevant cause is only in prospect, the FIDIC forms – like other standard forms – enable extensions of time to be granted as the work proceeds. As discussed above, this enables extension claims to be dealt with closer in time to the events giving rise to them, facilitating planning and accurate updating of the Contract programme in accordance with clause 8.3. A prospective assessment may favour the Contractor when the actual delay resulting from a cause turns out to be less than had reasonably been anticipated when his claim fell to be determined, but it equally might disadvantage him if the actual delay turns out to be greater. No provision exists in the FIDIC forms for the extension to be reduced subsequently to reflect the actual delay. The second paragraph of clause 8.5 does oblige the Engineer/Employer when determining any extension claim to review previous determinations made under clause 3.7/3.5, but he has no power to reduce, but only to increase, the total extension granted.[17] Where the impact of a delaying event

16 See, for example, the first instance Scottish decision in *City Inn Ltd v Shepherd Construction Ltd* [2008] BLR 269 per Lord Drummond Young at [29]. See sec 5, SCL Protocol Guidance Part B at pp. 23–27 for a useful discussion on contemporaneous delay analysis.

17 The Engineer/Employer will typically review previous extensions when considering claims of continuing effect under clause 20.2.6 (see Chapter 15 below) but may do so in other circumstances (for example, where the Contractor makes a claim for delay resulting from a related activity).

has been or has started to be felt at the time when the Contractor's claim falls to be determined any extension granted may more accurately reflect the actual delay caused, but it is important for the Engineer/Employer to make the assessment by using an appropriate, retrospective method.[18]

- *'The float': who owns it?*

In deciding the amount of extension to be granted, a relevant consideration – which sometimes causes dispute or disagreement – is the extent to which the Contractor ought to be able to benefit from any float he has built into his programme. As we have seen, float is the time contractors typically allow themselves to complete an activity in addition to its planned duration; when the float is used up, the completion date will be affected as the relevant activity then becomes critical.[19] The question which arises is whether, if a delaying event occurs for which the employer carries the risk, the contractor is entitled to an extension of time to match the resulting delay to his progress, even if that delay does or will not result in any delay to completion but only eats into his float. If the contractor is so entitled he is generally said to 'own' the float; if, on the other hand, the contract terms are such that the contractor is only entitled to an extension if completion is delayed by reason of an employer risk event, then the 'project' is said to own the float. In practice this means it is available to whoever needs it first. If an employer risk event occurs which uses up the contractor's float the employer benefits, as the extension granted will only reflect the extent to which the event caused delay beyond the float and affected completion; if on the other hand the contractor encounters a delaying event for which he is not entitled to an extension he benefits to the extent of the float.

Contracts should make it clear who 'owns the float'. In the FIDIC forms, in both editions, it seems clear that the project owns the float. Clause 8.5 in the 2017 forms provides for extensions of time only to the extent that completion for purposes of taking over is or will be delayed by the relevant specified causes; even if the Contractor's planned progress is delayed by a specified cause, he may obtain an extension only to the extent to which completion has been delayed by that cause. This is also the case in clause 8.4 in the 1999 editions.

## 7.6 The Specified Causes of Delay to Completion

### 7.6.1 Variations

This is the first of the various causes which might entitle the Contractor to an extension of time under clause 8.5 in the three 2017 Books. 'Variation' is a defined expression and means any change to the works which is instructed as a variation under clause 13.[20]

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18 See sec. 11 SCL Protocol Part B pp. 32–38 for a helpful discussion of the different retrospective approaches to considering extension of time claims after completion or where the relevant event or its delaying effects occurred significantly before the claim was made.

19 'Free float' is the time an activity can be delayed beyond its early start or early finish dates without delaying the early start or early finish of any immediately following activity; it is typically shown along with 'total float', the amount of time an activity may be delayed beyond its early start or early finish dates without delaying completion. See Appendix A to the SCL Protocol and sec. 8 Part B (pp. 27–29) for a discussion of float and its relation to extensions of time.

20 Clause 1.1.88, 2017 Yellow Book/1.1.86, 2017 Red Book/1.1.78, 2017 Silver Book.

The relevant part of clause 8.5 (sub-paragraph (a)) provides that the Contractor is entitled subject to clause 20.2 to an extension of time if and to the extent that completion '… is or will be delayed by any of the following causes: (a) a Variation (except that there shall be no requirement to comply with Sub-Clause 20.2 [Claims For Payment and/or EOT])'.

There are two important differences to note between this and the corresponding wording in clause 8.4 of the 1999 editions. That clause provides that, subject to clause 20.1, the Contractor is entitled to an extension of time if and to the extent that completion '… is or will be delayed by any of the following causes: (a) a Variation (unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [Variation Procedure])'.[21]

- *Discrepancies in the 1999 procedure for assessing extensions of time*

As just seen, clause 8.4 of the 1999 forms, sub-paragraph (a), entitles the Contractor, subject to clause 20.1, to an extension in respect of a variation '… unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [Variation Procedure]'. Clause 13.3 in the Yellow and Silver Books, however, provides for the Engineer/Employer to proceed to a determination under clause 3.5 in respect of adjustments to the Contract Price and Schedule of Payments, but contains no mention of agreeing or determining any extension of time; in the Red Book also the Engineer is to proceed with an evaluation under clause 12 but not to agree or determine any extension of time.

The variation procedure set out in clause 13.3 of the 1999 editions does provide for the Contractor, in preparing a proposal pursuant to the Engineer/Employer's request, to indicate any necessary modifications to the programme and to the time for completion consequent on the potential variation, but this is not carried through to the agreement or determination under clause 3.5 which is to follow if the Contractor's proposal is approved. It is thus unclear what precisely the agreement mentioned in sub-paragraph (a) relates to, since there is no express provision for the Engineer/Employer to agree or determine the time consequences of any variation as opposed to the monetary consequences. This has been rectified in the 2017 editions, which provide in clause 13.3 expressly for the Engineer/Employer to proceed to an agreement or determination under clause 3.7/3.5 of any extension of time due and/or adjustment to the Contract Price and Schedule of Payments (in accordance with the procedure set out in the third paragraph of clause 13.3.1) in respect of a variation.

- *Exclusion of claims procedure*

A related difference between the two editions of the three Books is that, where a variation is the basis for a claim to an extension of time, the 2017 forms simply exclude the requirement for compliance with clause 20.2 (relating to claims for payment and/or extensions of time) whereas in the 1999 editions, as we have just seen, the clause 20.1 (Contractor's claims) requirements apply '… unless an adjustment to the Time for Completion has been agreed' under clause 13.3. This may be taken to mean that the Contractor under the 1999 forms is obliged to comply with the notice and other requirements

21 In the 1999 edition of the Red Book, sub-paragraph (a) of clause 8.4 provides for the Contractor's entitlement to an extension for '…other substantial change in the quantity of an item of work included in the Contract' as well as a variation.

of clause 20.1 in claiming an extension by reason of a variation unless an agreement as to the extension has been achieved under clause 13.3, in circumstances, however, where no express provision exists under that clause for such an agreement. The 2017 forms rectify the position by (a) applying a uniform variation procedure in clause 13.3 and (b) by clause 8.5, sub-paragraph (a), simply excluding clause 20.2 from applying where an extension of time is sought by reason of a variation.

### 7.6.2 A Cause of Delay Giving an Entitlement to an Extension Under Another Clause

This is a straightforward provision in all three Books and enables the Contractor to obtain an extension of time where, for example, there has been a change in local laws (clause 13.6), or where an Exceptional Event under clause 18 occurs and the Contractor has given a relevant notice under clause 18.2.

Clause 8.6 of the 2017 forms provides that, if the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities or private utility entities in the country in which the works are being carried out, and those authorities or entities unforeseeably delay or disrupt the Contractor's work, then that delay or disruption is to be considered to be a cause of delay under clause 8.5(b).

### 7.6.3 Exceptionally Adverse Climatic Conditions: Red and Yellow Books

The 1999 Red and Yellow Books make provision for extensions of time where exceptionally adverse climatic conditions are encountered, but say nothing about the meaning of that expression. The 2017 Books correct this, and define the expression to mean '… adverse climatic conditions at the Site which are Unforeseeable having regard to climatic data made available by the Employer under Sub-Clause 2.5 [Site Data and Items of Reference] and/or climatic data published in the Country for the geographical location of the Site'. Thus in order to qualify the adverse climatic conditions have to be (a) unforeseeable, specifically having regard to (b) climatic data made available by the Employer under clause 2.5 and/or (c) climatic data published in the country of the project for the specific geographical location of the site of the works.

The guidance notes on the preparation of special provisions at the back of the two Books suggest that the parties may wish to set out in the Employer's Requirements or Specification (if the Red Book) in more detail what constitutes an exceptionally adverse event; for example, by reference to available weather statistics and return periods, with the comparative figures given for the frequency with which events of similar adversity have previously occurred at or near the site.

### 7.6.4 Unforeseeable Shortages

The 2017 Red and Yellow Books provide in sub-paragraph 8.5(d) for extensions of time where unforeseeable shortages in the availability of (a) personnel or goods or (b) Employer-supplied materials, if any, are caused by epidemic or government actions. The shortages so caused have to be unforeseeable in the sense defined in the three forms, namely not reasonably foreseeable by an experienced Contractor by the Base Date, but no further constraints apply to this basis for claiming an extension of time.

The 2017 editions are more generous to the Contractor than the 1999, since in the 1999 editions no provision is made to extend time resulting from any shortages in Employer-supplied materials, but only in personnel or goods.

In the 2017 Silver Book sub-paragraph (c) of clause 8.5 provides for an extension where unforeseeable shortages in the availability of Employer-supplied materials are caused by epidemic or government actions, so not including shortages in the availability of personnel or goods. However, as noted above, this is more generous to the Contractor than under the 1999 edition, where no provision is made for any shortages in Employer-supplied materials (or otherwise).

### 7.6.5 Delays, Impediments or Preventions Caused by or Attributable to the Employer

All three 2017 Books provide for an extension of time where '…any delay, impediment or prevention [is] caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site'. This wording is the same in the 1999 editions and provides a broad basis for claiming an extension wherever the delay can be traced to the Employer's acts or omissions, or those for whom he is responsible.

In common law jurisdictions it is essential to provide for an extension to the completion date in circumstances where the contractor has been prevented by the employer from completing within time since without such a provision time may become at large, so that the contractor's only obligation is to complete within a reasonable time, and the employer loses his right to claim liquidated damages for delay. Such a clause neutralises a principle of prevention which would otherwise apply, namely the principle that a promisee cannot insist upon the performance of an obligation which it has prevented the promisor from performing.[22] The FIDIC forms respect this principle and have provided expressly for those for whom the Employer is responsible vis-à-vis the Contractor, as well as the Employer himself, to be included in the ambit of the sub-paragraph 8.5(e)/8.5(c) ground for an extension.

## 7.7 Concurrent Causes

A novel feature of the 2017 editions is the express provision made in the last paragraph of clause 8.5 for the parties to agree rules and procedures which are to apply if a delay is caused by a matter which is the Employer's responsibility concurrently with a delay caused by one which is the Contractor's responsibility; in such a situation the Contractor's entitlement to an extension of time is to be assessed in accordance with such agreed rules and procedures. These are to be stated in the Special Provisions. In default of such a statement, the Contractor's entitlement is to be assessed '… as appropriate taking due regard of all relevant circumstances'.

The Contractor is entitled to an extension of time only to the extent that a specified event or circumstance causes a delay to completion. The Contractor must show:

(a) that a specified event or circumstance has occurred which

22 *Holme v Guppy* (1838) 3 M & W 387; and see *Adyard Abu Dhabi v S D Marine Services* [2011] EWHC 848 (Comm).

(b) has delayed or will delay completion
(c) to the extent claimed.

Particular difficulty arises in relation to (b) where a delaying event or circumstance within (a) occurs (an '(a)-event') but where an event or circumstance for which the Contractor is responsible either (i) occurs at the same time as the (a)-event and its delay-effects are felt at the same time as the (a)-event or (ii) occurs at a different time from the (a)-event but its delay-effects are nevertheless felt at the same time. Is the assessment of the Contractor's entitlement to be influenced to any extent by either of (i) or (ii)?

Absent the final paragraph of clause 8.5, the answer to this question is a matter simply of the governing law. The governing law might either ignore the existence of the concurrent event for which the Contractor is responsible in assessing the extension of time to which he is entitled or take that event into account by reducing or extinguishing what would otherwise be the Contractor's entitlement.

If the governing law is English law the approach to be taken is broadly speaking the first indicated above: if both events or circumstances are equally causative of delay to completion the Contractor's entitlement is to an extension to the full extent of the delay attributable to the Employer-risk event or circumstance and no apportionment to take into account delay attributable to the Contractor-risk event should be performed. The basis for this approach is that if the parties have expressly provided for time to be extended by reason of certain events then they must be taken to have contemplated that there could be more than one effective cause of delay, but nevertheless agreed that the Contractor should be entitled to an extension for the cause falling within the relevant clause.[23]

The position may well be different under other legal systems. The Scottish approach, for example, is quite different. In *City Inn Ltd v Shepherd Construction Ltd* the Inner House of the Court of Session [2010] CSIH 68 affirmed by a majority the view of the Outer House [2008] BLR 269 that, where there were concurrent causes of delay none of which could be described as dominant, the delay should be apportioned by the administering architect under a UK JCT building form (who was required to fix a fair and reasonable extension of time) between (a) the relevant event and (b) any risk event for which the contractor was responsible.

The effect of the final paragraph of clause 8.5 in the FIDIC 2017 forms, including what is meant by concurrency, is itself a matter of the governing law of the contract. However, subject to the governing law, if the parties have identified an agreed set of rules for assessing the Contractor's entitlement in the event of concurrency then it is thought that they will apply whatever would otherwise have been the position under that law. Thus in an English law contract under which the parties agreed rules based on, for example, the *City Inn* approach the Engineer/Employer could properly apportion the delay in assessing the Contractor's entitlement to an extension.[24]

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23 See *Henry Boot Construction (UK) Ltd v Malmaison Hotel (Manchester) Ltd* [1999] 70 Con. LR 32; *Walter Lilly & Co. Ltd v DMW Developments Ltd* [2012] EWHC 1773 (TCC); [2012] BLR 503. The position is different with respect to claiming loss and expense for the delay and associated disruption; in that situation if the Contractor's default was a cause he will not normally be entitled to claim. See *De Beers (UK) Ltd v Atos Origin IT Services UK Ltd* [2010] EWHC 3276 (TCC) [177]–[178].

24 Support for this position is provided by the recent English Court of Appeal decision in *North Midland Building Ltd v Cyden Homes Ltd* [2018] EWCA Civ 1744. The contract in question was an amended UK JCT

In the Guidance notes on the preparation of Special Provisions FIDIC explains that the final paragraph of clause 8.5 has been drafted as it has because there is no one standard set of rules or procedures in use internationally for assessing extensions where there is concurrency, although it highlights the SCL Protocol as being increasingly widely accepted. The Protocol may well form a suitable basis, but work would need to be done to it in order to distil a sufficiently clear and precise set of rules and procedures for purposes of the Engineer's or Employer's assessment under clause 8.5.

What is the position if no rules are stated in the Special Provisions for dealing with concurrency? As noted above, the final paragraph of clause 8.5 provides in that event for the Contractor's entitlement to be assessed '… as appropriate taking due regard of all relevant circumstances'. Although a matter for the governing law, this provision appears to permit the Engineer/Employer to apportion or otherwise determine the Contractor's entitlement as he considers appropriate, having regard to all the relevant circumstances. The Contract administrator is, in other words, given a discretion as to how he deals with concurrent causes in assessing the extension of time. If this were not so it is hard to see how any sense might be given to the administrator's power to assess the extension as appropriate taking due regard of all relevant circumstances. If, for example, the administrator were simply to make the assessment in accordance with the governing law one would expect clause 8.5 to say so in terms, rather than apparently giving the administrator the power to make an appropriate assessment in light of all the relevant facts.[25]

## 7.8 Delay Damages

Closely linked to extensions of time are the provisions entitling the Employer to delay damages in the event that the Contractor does not complete the works within the relevant time for completion, that is, by the latest date to which any extension of time has been granted. An extension of time shields the Contractor from delay damages that would otherwise apply, subject to the Employer's claiming them.

### 7.8.1 Clause 8.8: First Paragraph

Clause 8.8 in the three 2017 forms is in the same terms and provides (in the first paragraph) that if the Contractor fails to comply with clause 8.2 (as to time for completion

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form, bespoke clause 2.25.1.1(b) of which provided that 'Any delay caused by a Relevant Event which is concurrent with another delay for which the contractor is responsible shall not be taken into account'. The Court of Appeal held that there was no rule or principle of English law that prevented the parties from agreeing on the allocation of risk in the event of concurrency. Coulson LJ said at [22]–[23]: 'In my view, clause 2.25.1.3(b) is unambiguous. It plainly seeks to allocate the risk of concurrent delay to the appellant… The consequence of the clear provision was that the parties have agreed that, where a delay is due to the contractor, even if there is an equally effective cause of that delay which is the responsibility of the employer, liability for the concurrent delay rests with the contractor, so that it will not be taken into account in the calculation of any extension of time.'

25 It is to be noted in this connection that elsewhere in the 2017 forms the Engineer/Employer has an express right to apportion time; in particular under clause 17.2 in the context of indemnities, where he is entitled to take into account causes of delay for which the Contractor is liable as well as those for which the Employer is liable under that clause. See further Chapter 13 below.

of the works) the Employer is entitled, subject to claiming, to payment of delay damages by the Contractor for this default. Delay damages in turn are the amount stated in the Contract Data '…which shall be paid for every day which shall elapse between the relevant Time for Completion and the relevant Date of Completion of the Works or Section'. The total amount of such damages is not to exceed the maximum, if any, stated in the Contract Data.

Wording to the same effect appears in clause 8.7 of the 1999 editions.

The first paragraph of clause 8.8 is in three parts:

(i) 'If the Contractor fails to comply with Sub-Clause 8.2 [Time for Completion], the Employer shall be entitled subject to Sub-Clause 20.2 [Claims For Payment and/or EOT] to payment of Delay Damages by the Contractor for this default.'

Before the Employer is entitled to delay damages the Contractor must have failed to comply with clause 8.2, that is, failed to complete the whole of the works or section for purposes of taking over under clause 10.1 by the later of (a) the time for completion stated in the Contract Data or (b) the latest extension to that date granted under clause 8.5. If that requirement is satisfied, the Employer may claim the delay damages and is not entitled to deduct them from any sums due to the Contractor without making a claim in accordance with the terms of clause 20.2. For him to do so would be a serious breach of contract and may trigger a reference to the Engineer or Employer under clause 14.6.3[26] and entitle the Contractor to damages under the governing law.

(ii) 'Delay Damages shall be the amount stated in the Contract Data, which shall be paid for every day which shall elapse between the relevant Time for Completion and the relevant Date of Completion of the Works or Section.'

The Contract Data contain a space for the parties to state the daily rate of delay damages which is to apply under clause 8.8 to the works or sections. The delay damages due are then calculated by multiplying this rate by the number of days that have elapsed between (a) 'the relevant Time for Completion' and (b) 'the relevant Date of Completion of the Works or Section'. The relevant time for completion is the latest date up to which the Contractor has been awarded an extension of time under clause 8.5 (or, if no extensions have been granted, the time for completion stated in the Contract Data). The relevant date of completion is the date stated in the Taking-Over Certificate issued by the Engineer/Employer under clause 10.1 as the date on which the works or section have been completed in accordance with the Contract or, if the last paragraph of clause 10.1 applies (and the Engineer/Employer has failed to respond within the 28-day period prescribed) the date on which the works or section are deemed to have been completed in accordance with the Contract: see clause 1.1.24, 2017 Yellow and Red Books /1.1.21, 2017 Silver Book. Where the last paragraph of clause 10.1 applies, the Taking-Over Certificate is deemed to have been issued on the fourteenth day after the Contractor's application for a Taking-Over Certificate.

Two points arise from this part of clause 8.8.

- *The daily rate*

The first point that arises is whether there are any constraints on the daily rate stated in the Contract Data for delay damages. The use of a daily rate has many advantages, since it provides a pre-agreed sum which is to apply in the event of the Contractor's

26 See Section 10.5.1(d) below.

time-default and both removes the need for proof of the actual loss or damage sustained by the Employer as a result of that default and reduces the risk of disputes developing about the appropriate compensation to be allowed to the Employer in the event of the default. The governing law may, however, place constraints on the daily rate.

In particular, in common law systems a distinction is drawn between true liquidated or fixed-sum damages, on the one hand, and penalties on the other. This distinction has traditionally been made by contrasting a 'genuine pre-estimate' (agreed at the outset) of the loss which the Employer is likely to suffer as a result of the Contractor's time-default with a sum which goes beyond such a pre-estimate and amounts to a punishment for the Contractor's delay[27]; in the former case the clause may be enforceable as a liquidated damages clause and in the latter would be treated as a penalty and therefore unenforceable. That would not necessarily mean the Employer would be unable to recover any compensation for the delay, but he would have to prove his actual loss, which might well be difficult and time-consuming.

The distinction between liquidated damages and penalty clauses must now be seen in the light of the UK Supreme Court's decision in *Cavendish Square Holding BV v Talal El Makdessi* [2015] UKSC 67. The test has been reformulated so that one should ask in each case whether any legitimate business interest is served and protected by the clause and, if so, whether the provision made for that interest is nevertheless, in the circumstances, 'extravagant, exorbitant or unconscionable'.[28] The correct test for a penalty is whether the sum or remedy provided for in the event of a breach of contract is exorbitant or unconscionable when one has regard to the innocent party's interest in the performance of the contract.

The *Cavendish* case concerns liquidated damages clauses in general; in most construction contracts it is the financial impact of the delay which will be the employer's concern and the only question is therefore likely to be whether the fixed rate is plainly highly excessive having regard to the loss which the employer may be expected to suffer as a result of the time-default. An extract from an older decision is apt to illustrate the point:

> 'If you agreed to build a house in a year, and agreed that if you did not build the house for £50, you were to pay a million of money as a penalty, the extravagance of that would become at once apparent. Between such an extreme case as I have supposed and other cases, a great deal must depend on the nature of the transaction – the thing to be done, the loss likely to accrue to the person who is endeavouring to enforce the performance of the contract, and so forth.'[29]

There is a strong at least initial presumption that where the parties are commercial entities dealing at arm's length (negotiating perhaps a FIDIC contract) they will be in the best position to judge a clause dealing with the consequences of a breach.[30]

- *When may delay damages be claimed?*

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27 See Lord Dunedin's propositions in *Dunlop Ltd v New Garage Co Ltd* [1915] AC 79 at [86].
28 See Lord Mance at [152].
29 Per Lord Halsbury in *Clydebank v Yzquierdo* [1905] AC 6 at [10].
30 *Cavendish Square Holding BV v Talal El Makdessi* [2015] UKSC 67 at [35] per Lords Neuberger and Sumption.

The second point that arises is the time at which the Employer is entitled to claim delay damages. Since the delay damages are to be calculated by multiplying the daily rate by the number of days which shall have elapsed between (a) the latest extension of time (the relevant time for completion) and (b) either the date of completion stated in the Taking-Over Certificate or the date when the works or section are deemed completed and the certificate deemed issued (the relevant date of completion) it would seem that the Employer is only entitled to claim delay damages after taking over of the works has either occurred or is deemed to have occurred,[31] since before that time there will be no date stated in any Taking-Over Certificate or no date of deemed completion.

It has been suggested by some writers that clause 8.8, like clause 8.7 in the 1999 editions which has the same relevant wording, should be construed merely as setting out the period over which the Contractor is liable for delay damages and the amount of them and not as governing the time at which the Employer may claim payment of such damages; on this view, the Employer may claim payment of delay damages from time to time as they accrue, which appears to mean for any delay days occurring after the latest extension of time but before taking over.

This view does, however, still run up against the difficulty that it is impossible to calculate the Contractor's liability for delay damages without having an end-date, namely the completion date stated in the Taking-Over Certificate or the deemed date of completion/deemed date of issue of the certificate. The clause does not say the Employer is entitled to delay damages for every day that elapses between the latest extension of time and the date on which he subsequently chooses to claim them; the Contractor might, for example, be entitled to a further extension at that time, which he might have claimed but which has not yet been determined, or he might be accelerating to overcome a delay for which he cannot claim. The Engineer or Employer has no power under the FIDIC forms to levy interim delay damages, which might be refunded should the Contractor be entitled to a subsequent extension of time. The purpose of defining the Employer's entitlement by reference to the date stated in the Taking-Over Certificate/deemed completion date is to ensure that the Employer levies delay damages only at the point in the project at which the Contractor's responsibility for delay to completion has been finally ascertained. At any time before completion the Contractor's liability to pay delay damages will not be finally ascertained. It is therefore suggested that the distinction sought to be drawn between the Contractor's liability to pay delay damages and the Employer's entitlement to claim them is not one which can be supported by the terms of the clause or the rationale for it.

(iii) 'The total amount due under this Sub-Clause shall not exceed the maximum amount of Delay Damages (if any) stated in the Contract Data.'

The FIDIC forms in both editions provide for a cap to be placed on delay damages, in an amount to be stated (in the 2017 editions) in the Contract Data; if no maximum amount is stated no cap will apply. Invariably, however, contractors ensure that a cap is stated and this is often expressed as a percentage of the Contract Price. A rule of thumb suggested by the *FIDIC Guide* to the 1999 editions is about 5–15% of the price, although this varies widely.

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31 Under clause 10.1 if there is a deemed completion in accordance with the last paragraph of that clause (taking effect on the fourteenth day after the Contractor's application) the Taking-Over Certificate is deemed to have been issued on that day, so that taking over occurs on that day pursuant to clause 10.1(e).

The cap, if any, on delay damages is part of the overall limitation of Contractors' liability under clause 1.15 of the 2017 Red and Yellow Books/clause 1.14 Silver Book. Here a default provision applies in the highly unlikely event that no sum for this overall cap is stated in the Contract Data, namely, the total liability is not to exceed the Accepted Contract Amount (Red and Yellow Books) or Contract Price stated in the Contract Agreement (Silver Book).[32]

### 7.8.2 Clause 8.8: Second and Third Paragraphs

The second paragraph of clause 8.8 provides that delay damages are to be the only damages due from the Contractor for his failure to comply with clause 8.2, other than in the event of termination under clause 15.2 for Contractor default before the works are completed.

Clause 15.2 is examined in Section 12.1 below, but it is to be noted here that clause 15.2.1 provides a list of circumstances in which the Employer may terminate the Contract, one of which is the Contractor's failure, without reasonable excuse, to proceed with the works in accordance with clause 8. A failure to proceed with the works with due expedition and without delay, in accordance with the general obligation in clause 8.1, may therefore in certain circumstances enable the Employer to terminate the Contract and claim compensation from the Contractor, in addition to any delay damages to which he might be entitled.

As in the 1999 editions, the 2017 forms confirm for the avoidance of any doubt that delay damages do not relieve the Contractor of any obligation he has under the Contract (including the obligation to maintain progress).

The third paragraph of clause 8.8 provides for the cap on the Contractor's liability for delay damages not to apply in any case of Contractor fraud, gross negligence, deliberate default or reckless misconduct; just as in these circumstances the Contractor cannot benefit from the overall cap on liability provided for by clause 1.15/clause 1.14.

### 7.8.3 Other Delay-related Provisions

Clause 8.7 of the 2017 forms provides for the Engineer/Employer to instruct the Contractor to take certain steps to expedite progress where actual progress is too slow to complete the works within the time for completion and/or progress has fallen or will fall behind the programme, unless the reason for these circumstances is a cause under clause 8.5 which may justify an extension of time. The steps the Contractor may be instructed to take are to submit a revised programme describing the revised methods which he proposes to adopt in order to expedite progress and complete the works within the time for completion. Unless the Engineer/Employer notifies the Contractor to the contrary, he is to adopt the revised methods described in the revised programme at his own risk and cost; and the Employer may be entitled to claim any additional costs he incurs as a result of the Contractor's revised methods, in addition to any delay damages. Thus delay damages are distinguished as compensation for the delay as such suffered by the Employer, with the Employer expressly entitled in addition to claim his costs incurred as a result of the revised methods.

32 See Section 2.8 above.

An important provision is made in the final paragraph of clause 8.7 for situations in which the Engineer/Employer instructs the Contractor to implement revised methods, including acceleration measures, in order to reduce delays resulting from any of the causes of delay listed under clause 8.5; in such a situation clause 13.3.1, dealing with variations by instruction, is to apply. This is a new provision, added in the 2017 contracts to give the Contractor an entitlement to more time and/or money in circumstances where he has taken instructed steps to mitigate the effects of delays resulting from any of the clause 8.5 causes of delay.

## 7.9 Employer's Suspension of the Works

As well as delay, clause 8 in both the 1999 and 2017 forms deals with the Engineer's/Employer's right to instruct the works to be suspended and the consequences of such a suspension, the 2017 forms doing so in somewhat more detail.

### 7.9.1 Right to Instruct Suspension

Clause 8.9 in the 2017 forms empowers the Engineer/Employer at any time to instruct the Contractor to suspend progress of part or all of the works, the instruction to state the date and the cause of the suspension. Whatever the cause of the suspension, the Contractor must, for the duration of the suspension, protect, store and secure whatever parts of the works are affected by it against any deterioration, loss or damage.

### 7.9.2 Effects of Suspension

It is important for the instruction under clause 8.9 to state the cause of the suspension because that affects the Contractor's entitlements to additional time and/or payment. If the cause of the suspension is not the responsibility of the Contractor he will be able to claim an extension of time and/or cost plus profit in respect of any delay and/or cost incurred in complying with the instruction and/or as a result of resuming work under clause 8.13 when instructed to do so (clause 8.10). He may also be entitled to payment under clause 8.11 (in respect of plant and materials after the suspension has been instructed) and to the protection, in the event of a prolonged suspension, provided by clause 8.12 (see Section 7.9.4 below). He will not, however, be entitled (clause 8.10) to any extension or payment in respect of making good either the consequences of his own faulty or defective design, workmanship, plant or materials, or of any deterioration, loss or damage caused by his failure to protect, store or secure the affected parts of the works under clause 8.9.

If, on the other hand, the cause of the suspension was the Contractor's responsibility, he will not be entitled to any of the relief referred to in the preceding paragraph, and considered further in the next two Sections.

### 7.9.3 Payment for Plant and Materials After Suspension: Clause 8.11

Clause 8.11 entitles the Contractor to payment of the value, at the date of the suspension instructed under clause 8.9, of plant and/or materials which have not yet been delivered to site. The purpose of the provision is to delimit carefully the circumstances in

which the Contractor is to be entitled to any such additional payment. Those circumstances are, in summary, that (a) there must be a prolonged suspension (of more than 28 days) before the Contractor is entitled to the additional payment; (b) the plant and/or materials must have been scheduled, in accordance with the programme, to have been completed and ready for delivery to the site during the suspension; (c) there is reasonable evidence that they comply with the Contract; and (d) the plant and/or materials must have been labelled or marked as the Employer's property according to the Engineer's/Employer's instructions.

### 7.9.4 Prolonged Suspension: Clause 8.12

Clause 8.12 deals with prolonged suspension. The intention here is that the Contractor should not be kept in a state of limbo for an indefinite period. If the suspension has continued for more than 84 days, the Contractor may by notice ask the Engineer or Employer for permission to proceed. If that permission is not forthcoming within 28 days, by the issue of a further notice instructing a resumption of work, then the Contractor has a choice:

(a) he may agree to a further suspension, in which case the parties may agree the extension of time and/or cost plus profit (if the Contractor has incurred any cost) resulting from the total period of suspension; or
(b) if the Contractor either does not wish to or cannot agree a further suspension with the Engineer or Employer (for example, they cannot agree the relevant extension of time or additional payment); then
(c) after giving a second notice, he may treat the suspension as an omission of the affected part of the works as if it had been instructed to be omitted as a variation under clause 13.3.1. This takes effect immediately upon the second notice, and releases the Contractor from any further obligation to protect, store or secure the affected part. If the suspension has affected the whole of the works then the Contractor may give a notice of termination under clause 16.2.

Thus the Contractor is protected to the extent that the suspension, instructed through no fault of his own, has continued for more than 84 days, but must in theory wait another 28 days before either (a) agreeing a further suspension, if possible, or (b) by a second notice, treating the prolonged suspension as an omission by a variation (and therefore obtaining any extension of time and additional payment under clause 13.3.1) or again, if the effects of the suspension are extensive enough, electing to terminate the Contract by giving a notice under clause 16.2 (and then claim the appropriate time extension and and/or payment, of cost plus profit, under clause 20.2).

### 7.9.5 Instruction to Resume Work: Clause 8.13

If the Engineer or Employer notifies the Contractor to resume work, either pursuant to a request from the Contractor under clause 8.12 or because the Engineer/Employer considers that it is otherwise appropriate to do so, the Contractor must resume work as soon as practicable after receiving the notice (clause 8.13).

The Contractor and Engineer/Employer are to examine the works and plant and materials affected by the suspension jointly, the Engineer/Employer making records of any

deterioration, loss, damage or defect occurring during the suspension; the Contractor is then promptly to make good such matters so that the works when completed will comply with the Contract. To the extent that any such deterioration, loss or damage during the suspension resulted from matters which were not caused by the Contractor's failure to protect, store or secure in accordance with clause 8.9 he may be able to claim an extension of time or additional payment for making good the relevant damage, defect or deterioration. For example, if some damage can be attributed to the Employer or his other contractors on site despite the Contractor's securing the relevant parts of the works then the Contractor may be entitled to an extension of time and/or additional payment under clause 8.10, subject to claiming under clause 20.2, in respect of any work needed to make good the damage.

# 8

# Testing on and After Completion and Employer's Taking Over

As the Contract works proceed towards completion the Contractor must demonstrate to the Employer that they comply with the requirements of the Contract, subject to relatively minor items of defective and outstanding work. Normally, the Employer's Requirements in the case of the Yellow and Silver Books, or the Specification or elsewhere in the Red Book, will set out details of the tests to be performed and passed before the works have reached the stage of completion required before they are taken over by the Employer.

The 1999 contracts provide for testing on completion but the 2017 forms have improved on the 1999 provisions mainly in that (a) the Contractor is now required to submit a detailed test programme to the Engineer/Employer and (b) when the Contractor considers that the tests have been passed he must submit a certified report of the results of the tests. The Engineer/Employer may then review what has been submitted and notify the Contractor of any failure to comply with the Contract requirements.

In both editions, the Red Book says little about the content of the tests, and the Yellow and Silver Books do not say very much more than that the tests should adopt a certain sequence unless the Employer's Requirements provide otherwise. In practice the test programme now required under clause 9.1 together with the Employer's Requirements or Specification will set out details of the testing required.

The tests on completion under clause 9 are obligatory in the general conditions in all three forms, by contrast with tests which may be required to be passed after completion, in particular after the Employer has taken over the works. Such testing after completion is normally provided for in projects with a heavy technology element where an extended trial period or other extensive testing is thought to be necessary in order to demonstrate compliance with the Contract.

In the Yellow and Silver books, in both editions, clause 12 sets out provisions relating to testing after completion. Such testing is only to be carried out if the Contract so specifies (or in the 2017 Yellow and Silver Books, if the Employer's Requirements in particular so specify). No clause in the Red Book deals specifically with testing after completion (clause 12 dealing with measurement and valuation instead), but testing after completion may be performed under a Red Book contract. In the 2017 Red Book such tests have to be stated in the Specification and carried out in accordance with the Special Provisions (clause 1.1.82); in the 1999 edition they have to be specified in the Contract and carried out in accordance with the Particular Conditions (clause 1.1.3.6).

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

## 8.1 Testing on Completion

### 8.1.1 Contractor's Obligations

In all three 2017 forms clause 9.1, first paragraph, provides for testing on completion to be carried out in accordance with the general rules about timetabling and monitoring of the tests in clause 7.4, and also provides for the tests to be carried out only after the Contractor has submitted the as-built records and operation and maintenance manuals. The following paragraphs of clause 9.1 set out a timetable for the Contractor to submit, not less than 42 days before the intended commencement date for the tests, a detailed test programme showing the intended timing and resources required for the tests. This detailed programme is to be reviewed in the proactive sense defined in clause 1 of the three Books[1]; and to ensure that there is no delay or tardiness in this process the Engineer/Employer has to notify the Contractor within 14 days of any extent to which the test programme does not comply with the Contract. The Contractor must then revise the test programme to rectify the problem within 14 days. If the Engineer/Employer gives no such notice within the 14 days after receiving the test programme, or any revised version of it, he is deemed to have given a notice of no-objection, and the Contractor may then commence the tests on completion. But the Contractor cannot begin the tests on completion until an actual or deemed notice of no-objection has been given.

Clause 9.1 contains provisions to ensure that the Contractor gives the Engineer/Employer adequate notice of his readiness to carry out each test. In the Yellow and Silver Books the tests must be carried out in accordance with:

(a) the test programme (fourth paragraph);
(b) the sequencing of the tests indicated in the fifth paragraph,[2] unless otherwise stated in the Employer's Requirements; and
(c) the notice given by the Contractor during the trial operation period (sixth paragraph), when the works or section are operating under stable conditions, that they are ready for any other tests on completion, including any performance tests required in order to demonstrate compliance with any performance criteria specified in the Employer's Requirements and with the schedule of performance guarantees.[3]

The Red Book general conditions do not contain any of the above requirements as to testing contained in the Yellow and Silver Books. Any specific requirements as to, for example, sequencing, if required by the Contract, ought to be provided for in the test programme.

In all three Books clause 9.1 provides for the Contractor to submit a certified report of the results of the tests to the Engineer/Employer when the Contractor considers that each test has been passed. This report is to be reviewed by the Engineer/Employer and, if he considers that the results do not comply with the Contract, he must notify the Contractor identifying the extent of such non-compliance. Again, in order to prevent delay in the process, if the Engineer/Employer does not give such a notice within 14 days after receiving the test results he is deemed to have given a notice of no-objection.

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1 Clause 1.1.71 Yellow Book; 1.1.70 Red Book; 1.1.61 Silver Book.
2 The basic sequence indicated is pre-commissioning, commissioning and trial operation.
3 See Section 8.1.4 below.

An important proviso is that in considering the results of tests on completion the Engineer/Employer must make allowance for the effect of any use of any part of the works by the Employer on the performance or other characteristics of the works.

### 8.1.2 Delayed Tests

Clause 9.2 makes provision for delayed tests. If the Contractor has given his notice of readiness under clause 9.1 that the works or section are ready for testing on completion but the tests are unduly delayed by the Employer's personnel or a cause for which the Employer is responsible then clause 10.3 applies; this may entitle the Contractor to claim an extension of time and/or cost plus profit.

If, on the other hand, the tests are unduly delayed by the Contractor, the Engineer/Employer may give a notice to the Contractor requiring him to carry out the tests within 21 days after receipt of the notice. The Contractor must then carry out the tests on a day or days and within that 21-day period, having given the Engineer/Employer prior notice of no fewer than 7 days.

If the Contractor fails to carry out the tests within the above period of 21 days then, after the Engineer/Employer has given the Contractor a second notice, the Employer's personnel may proceed with the tests, which the Contractor may attend and witness; but whether or not he does attend they will be deemed to have been carried out in his presence and the results will be treated as accurate. Within 21 days of the tests' being completed by the Employer's personnel the Engineer/Employer must send the Contractor a copy of the results. If this testing causes additional cost to the Employer he may claim it from the Contractor provided it was reasonably incurred.

Thus a tight timetable, backed by deeming provisions, applies in the event of the tests' being delayed by a cause for which the Contractor is responsible; with the Contractor at risk as to costs, not to mention the results of the tests, if the Contractor delays beyond the 21 days' notice period under clause 9.2.

### 8.1.3 Retesting

Clause 9.3 provides for retesting in the event that the Contractor should fail any of the tests on completion, with clause 7.5 then applying (see Section 6.2.3 above). Such repeated tests are to be treated as tests on completion for purposes of clause 9.

### 8.1.4 Failure to Pass Tests on Completion

There are special provisions in clause 9.4 for a repeated failure to pass the tests on completion. If there has been a retesting under clause 9.3 but the works or section still fail to pass the tests then a range of consequences ensue, from ordering a further repetition of the tests, rejecting the works or section and, finally, issuing a Taking-Over Certificate but with a corresponding adjustment to the Price or a payment by the Contractor.

The works may be rejected if the effect of the failure is to deprive the Employer of substantially the whole benefit of the works; in that case, clause 11.4(d) applies and the Employer may terminate the Contract with immediate effect. If a section is in issue, the Engineer/Employer may reject the section if the effect of the failure is that it cannot be used for its intended purpose under the Contract, in which case clause 11.4(c) applies

and the section is to be treated as omitted by an Engineer's instruction under clause 13.3.1.

If the Engineer or Employer's Representative, having been so requested by the Employer, decides to issue a Taking-Over Certificate notwithstanding the failure, then the Employer may claim, subject to clause 20.2, as follows:

(a) in the Yellow and Silver Books, either payment of performance damages from the Contractor or a reduction in the Contract Price, pursuant to clauses 11.4(b)(i) or (b)(ii) respectively; and
(b) in the Red Book, a reduction in the Contract Price under clause 11.4(b).

Importantly, the above entitlements are without prejudice to any other rights the Employer might have under the Contract or otherwise; he might, therefore, depending on the governing law, have additional remedies against the Contractor.

- *Yellow and Silver Book clauses 11.4(b)(i) and (ii)*

Clause 11.4(b)(i) in the 2017 Yellow and Silver Books, referred to above in sub-paragraph 8.1.4(a), marks a significant departure from the 1999 editions by providing for performance damages to be paid by the Contractor for failure to achieve the guaranteed performance of the plant and/or the works or any part of them as set out in any Schedule of Performance Guarantees.[4] The performance damages are a liquidated sum (stated in the Schedule of Performance Guarantees) to compensate the Employer for the failure to achieve the guaranteed performance and are to be in full satisfaction of this failure (11.4(b)(i)).

If, however, the Contract documents do not include a Schedule of Performance Guarantees, or there are no applicable performance damages, then the Employer is entitled to a reduction in the Contract Price, which is also to be in full satisfaction of the Contractor's failure to achieve the relevant performance levels (but for no other failure). The reduction (as in the 1999 Books) is to be in whatever amount may be appropriate to cover the reduced value to the Employer as a result of the failure (11.4(b)(ii)).

Performance liquidated damages increase certainty but are really only appropriate for projects with measurable performance criteria as part of the tests on completion, since they require the parties to be able to assess in advance the 'reduced value' to the Employer of the failure to reach the relevant performance levels.

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4 A Schedule of Performance Guarantees is normally included among the Contract Schedules in the 2017 Yellow and Silver Books showing guarantees required by the Employer for performance of the works and/or the plant or any part of the works; they will state the applicable performance damages payable in the event of failure to obtain the guaranteed performance(s) (clause 1.1.74 Yellow Book/1.1.64 Silver Book). The 1999 Yellow Book provides for a Schedule of Guarantees and the 1999 Silver Book provides similarly for performance guarantees (see clause 9.1) but there is no provision for performance damages as such in relation to the tests on completion; instead there is a more general provision in clause 9.4 for the Contract Price to be reduced by an amount appropriate to cover the reduced value to the Employer as a result of the failure to pass the tests on completion. This is similar to the default position now under clause 11.4 of the 2017 Yellow and Silver Books under sub-paragraph (b)(ii) (see penultimate paragraph above).

As discussed below in Sections 8.3.1 and 8.3.2, it should be noted that the 1999 Yellow and Silver Books allow for the payment of any stated 'non-performance damages' by the Contractor if tests after completion have been specified and the works or section fail to pass them. (In the 1999 and 2017 Red Books testing after completion is a matter for specific provision in the Particular Conditions/Special Provisions and is not dealt with in the general conditions.)

- *Red Book clause 11.4(b)*

Clause 11.4(b) of the 2017 Red Book, referred to above in sub-paragraph 8.1.4(b), provides for the Employer to be compensated for the failure in the same terms as clause 11.4(b)(ii) of the other two Books, namely, by obtaining an appropriate reduction in the Contract Price to cover the reduced value as a result of the failure, in full satisfaction of the relevant failure only.

## 8.2 Employer's Taking Over

Taking over under the three forms is a major milestone in the project. It occurs when the works or sections have passed the tests on completion and are otherwise ready to be taken into commercial use and occupation by the Employer, subject to snagging or relatively minor items of defects or incomplete work. After taking over the Employer takes responsibility for care and maintenance of the works; the Contractor's obligation to insure the works ends[5]; and 50% of the retention money is paid to the Contractor.[6] Importantly, the date of completion stated in the Taking-Over Certificate is the date from which the Employer's entitlement to delay damages ends and the Defects Notification Period starts to run. Because taking over is such an important stage in the project the Engineer/Employer may be reluctant to issue or may delay issuing the Taking-Over Certificate in circumstances where this is not justified, and the three forms in both editions provide safeguards to the Contractor to minimise or reduce this risk.

### 8.2.1 The 1999 Contracts

Clause 10.1 in both editions of the three Books deals with the Employer's taking over of the works. In the 1999 editions, this clause is in the same terms in all three Books. It provides that the works are to be taken over by the Employer when:

(a) they have been completed in accordance with the Contract except for minor outstanding works and defects;
(b) they have passed the tests on completion;
(c) the Contractor has completed any work which the Contract requires to be completed before taking over can take place; and
(d) a Taking-Over Certificate has been issued or is deemed to have been issued under the clause.

The 2017 editions contain more detailed requirements for taking over and these requirements also differ somewhat between the Red and Silver Books, on the one hand, and the Yellow Book on the other.

### 8.2.2 The 2017 Yellow Book

Clause 10.1 of the 2017 Yellow Book provides that, except as stated in clause 9.4 (dealing with failure to pass tests on completion), clause 10.2 (dealing with taking over of parts of the works other than sections[7]) and clause 10.3 (interference with tests on completion), the works are to be taken over by the Employer when:

5 See Section 13.4 below.
6 See clause 14.9, both editions. The second half of the retention money is to be paid after expiry of the Defects Notification Period. Corresponding provisions apply where there is sectional completion.
7 See Section 8.2.6 below.

(a) they have been completed in accordance with the Contract, including passing the tests on completion and except as allowed in sub-paragraph (i), second paragraph of clause 10.1 (see next paragraph);
(b) the Engineer has (or is deemed to have) given a notice of no-objection to the as-built records submitted under clause 5.6, sub-paragraph (a);
(c) the Engineer has (or is deemed to have) given a notice of no-objection to the provisional operation and maintenance manuals for the works submitted under clause 5.7;
(d) the Contractor has carried out any training required under clause 5.5; and
(e) a Taking-Over Certificate has been (or is deemed to have been) issued under clause 10.1.

The sub-paragraph (i) referred to in paragraph (a) above provides for a Taking-Over Certificate to be issued when the works or section have been completed in accordance with the Contract except for any minor outstanding work and defects (as listed in the Taking-Over Certificate) which will not substantially affect the safe use of the works or section for their intended purpose (either until or while this work is completed and the defects remedied). Thus the list of requirements before taking over occurs in the 2017 Yellow Book is more extensive than in the 1999 editions of the three Books and includes new provisions relating to as-build drawings, provisional operation and maintenance manuals and training.

### 8.2.3 The 2017 Red and Silver Books

Clause 10.1 of the 2017 Red and Silver Books provides that (with the same exceptions relating to failure to pass tests on completion, taking over of parts of the works and interference with the tests on completion as in the Yellow Book) the works are to be taken over by the Employer when:

(a) they have been completed in accordance with the Contract, including passing of the tests on completion and except as allowed in sub-paragraph (i) of clause 10.1 (see next paragraph);
(b) if applicable, the Engineer/Employer has (or is deemed to have) given a notice of no-objection to the as-built records submitted under clause 4.4.2 (Red Book) or 5.6 (Silver);
(c) if applicable, the Engineer/Employer has (or is deemed to have) given a notice of no-objection to the operation and maintenance manuals under clause 4.4.3 (Red Book) or 5.7 (Silver);
(d) if applicable, the Contractor has carried out the training referred to under clause 4.5 (Red Book) or 5.5 (Silver); and
(e) a Taking-Over Certificate has (or is deemed to have) been issued under clause 10.1.

The sub-paragraph (i) referred to in paragraph (a) above provides, like the Yellow Book, for a Taking-Over Certificate to be issued when the works or section have been completed in accordance with the Contract except for any minor outstanding work and defects (as listed in the Taking-Over Certificate) which will not substantially affect the safe use of the works or section for their intended purpose (either until or while this work is completed and these defects remedied).

The 2017 Red and Silver Books differ, however, from the Yellow Book by making the requirements described in paragraphs (b) to (d) above conditional: thus, for example, if no as-built records for the Contractor to prepare are specified in the Specification (if Red Book) or Employer's Requirements (if Silver Book) then clause 4.4.2/5.6 does not apply and hence no requirement for the Engineer/Employer to have issued a notice of no-objection to any such records will apply; whereas in the 2017 Yellow Book the Contractor must prepare and keep up to date a complete set of as-built records under clause 5.6.[8]

### 8.2.4 Procedure Under Clause 10.1

The taking-over procedure is the same in all three 2017 forms.

Clause 10.1 provides for the Contractor to apply for a Taking-Over Certificate by giving a notice to the Engineer/Employer not more than 14 days before the Contractor considers that the works or each section will be complete and ready for taking over.

If there is a taking over of part only of the works under clause 10.2[9] the remaining works or section are only taken over when the conditions referred to above in Sections 8.2.2 (applying to the Yellow Book) and 8.2.3 (applying to the Red and Silver) have been fulfilled.

Clause 10.1 then requires the Engineer/Employer, within 28 days after receiving the Contractor's notice, either:

(i) to issue the Taking-Over Certificate, stating the date when the works or section were completed in accordance with the Contract, except for any minor outstanding work and defects listed in the Taking-Over Certificate[10]; or
(ii) to reject the application, by giving a notice to the Contractor with reasons. The notice must specify the work required to be done, defects to be remedied and/or documents required to be submitted before the Taking-Over Certificate may be issued. The Contractor must then complete this work, remedy the defects and/or submit the documents before giving a further notice under the clause.

A deeming provision applies if the Engineer/Employer fails either to issue the Taking-Over Certificate or reject the Contractor's application within the above 28-day period: provided the conditions referred to above in Sections 8.2.2 and 8.2.3 respectively have been fulfilled, the works or section will be deemed completed in accordance with the Contract on the 14th day after the Engineer/Employer receives the Contractor's application notice, and the Taking-Over Certificate is to be deemed to have been issued.

Thus the three 2017 forms provide a timetable for the Contractor's application for issue of the Taking-Over Certificate, which may be somewhat in advance of the date on which he considers the works will be ready to be taken over, and the Engineer/Employer either to issue the certificate or reject the application or have the certificate deemed issued within a 28-day period.

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8 This is consistent with both the Silver Book Contractor's traditionally greater autonomy and the Red Book Contractor's more limited design and related responsibilities.

9 See Section 8.2.6 below.

10 These defects or incomplete items are 'minor' in that they do not substantially affect the safe use of the works or section for their intended purpose, either until or while the relevant work is completed and any defects remedied (clause 10.1, third paragraph).

### 8.2.5 Wording of the Deeming Provision

It is important to note a change in the wording of the deeming provision as compared with the 1999 editions. In the 1999 editions the Taking-Over Certificate is deemed by clause 10.1 to have been issued on the 28th day following the Contractor's application:

> 'If the Engineer [Employer] fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.'

In the 2017 editions the relevant part of clause 10.1 provides that '…the Works or Section shall be deemed to have been completed in accordance with the Contract on the fourteenth day after the Engineer receives the Contractor's Notice of application and the Taking-Over Certificate shall be deemed to have been issued.'

It has been suggested by some commentators that this corrects an anomaly in the first editions, where the Contractor was entitled to apply for a Taking-Over Certificate 14 days before the works would, in his opinion, be complete and ready for taking over (para. 2 of clause 10.1) but if the Engineer/Employer failed to respond (either by issuing the certificate or rejecting the Contractor's application) taking over would in those circumstances be deemed to have occurred 14 days after the date when the Contractor considered that the works were ready to be taken over (since the Engineer/Employer has the full 28 days in which to respond and the certificate is deemed issued on the 28th day). If, therefore, the Contractor had achieved the date for completion, and issued his application 14 days earlier, he might strictly be liable for delay damages due to the Engineer's or Employer's not issuing the Taking-Over Certificate within the 28 days. The 2017 editions are said to remove this anomaly, since taking over is deemed to have occurred as soon as it could have done, that is within 14 days of the Contractor's application, should the Engineer/Employer fail to issue the certificate.

It does, however, seem unlikely that the Contractor would be held liable for delay damages under the 1999 editions in the above circumstances, since they only provide for the Taking-Over Certificate to be deemed to have been issued on the 28th day after receipt of the Contractor's application, leaving it open to the Contractor to claim a declaration, if needed, that *completion* occurred on the 14th day after the application (and not the 28th) or, if he should face a claim for delay damages for the additional 14 days (between the date of actual completion and the deemed date of issue of the Taking-Over Certificate) to defend the claim by arguing that the correct date for completion to be stated in the Taking-Over Certificate is the date of actual completion (and not the deemed date of issue of the Taking-Over Certificate). The deeming provision in the first editions, in other words, relates only to the Taking-Over Certificate, not to the date of completion as such.

It is thought, however, that the new wording is an improvement because it deems the date for *completion* to be the 14th day after the application, and then deems the Taking-Over Certificate to have been issued on that day, thereby removing any doubt about when completion and taking over are to be treated as having occurred.

### 8.2.6 Taking Over of Parts: Clause 10.2

We have seen that the Contract works may be divided into sections, with their own timetables and completion criteria, but in some circumstances where the works have not been so divided the Employer may wish to use part of the works before the whole of the works have been completed or taken over. In the Red and Yellow Books in both editions provision is made for this in clause 10.2; this contrasts with the Silver Book, where specific agreement by the parties is required before any parts of the works other than sections can be taken over or used by the Employer.

Under clause 10.2 of the 2017 Red and Yellow Books the Engineer may, but only at the Employer's discretion and not the Contractor's, issue a Taking-Over Certificate for part only of the works. Although the clause provides that the Employer is not to use any part of the works without the certificate's having been issued, the Contractor is protected should the Employer nevertheless do so as taking over will then be deemed to have occurred, a Taking-Over Certificate is to be issued forthwith and the Contractor is to cease to be responsible for the care of the relevant part. He is also to be given the earliest opportunity to do whatever further work is required, including carrying out tests on completion, as soon as practicable and before expiry of the Defects Notification Period. The Contractor may also claim cost plus profit if he incurs cost as a result of the Employer's taking over of the relevant part; and there is provision for a proportionate reduction in delay damages.[11] The 1999 editions of the Red and Yellow Books contain similar provisions in clause 10.2, but the 2017 editions cover the topics in substantially more detail.

### 8.2.7 Other Clause 10 Provisions

Clause 10.3 in the 2017 editions of the three Books provides for the position if the Contractor is prevented from carrying out the tests on completion by the Employer's personnel or some cause for which the Employer is responsible.

In the Red and Yellow Books, if the prevention lasts longer than a continuous or cumulative period of 14 days, and the Contractor gives a corresponding notice, the Employer will be deemed to have taken over the works or section on the date when the testing on completion would otherwise have been completed; the Engineer is then immediately to issue a Taking-Over Certificate for the relevant works or section. The Contractor must then carry out the tests on completion as soon as practicable and in any case before expiry of the Defects Notification Period.

The position is somewhat different in the Silver Book. Here, taking over is not deemed to have occurred when the testing on completion would otherwise have been completed but for the prevention. However, if the prevention lasts longer than the continuous or cumulative 14-day period applying under the other Books, the Contractor will (also) be

11 A formula is given for calculating the reduction. The reduction is to be calculated as the proportion which the value of the part (except the value of any outstanding works and/or defects to be remedied) bears to the value of the works or section (as applicable) as a whole. The Engineer is then to proceed under clause 3.7 to agree or determine this reduction; and for the purpose of the time limits under clause 3.7.3 the date the Engineer receives the Contractor's notice under clause 10.2 is to be the date of commencement of the time limit for agreement under that clause. It is made clear that these provisions only apply to the daily rate of delay damages and do not affect the maximum amount of such damages referred to in clause 8.8.

obliged to carry out the tests on completion as soon as practicable and before expiry of the relevant Defects Notification Period.

In all three Books the Contractor may claim an extension of time and/or cost plus profit in respect of the prevention.

Finally, clause 10.4 of the 2017 Red and Yellow Books (but not the Silver Book) provides that, unless the Taking-Over Certificate otherwise states, a certificate for a section or part of the works is not to be deemed to certify completion of any ground or other surfaces requiring reinstatement.

## 8.3 Tests After Completion

In some cases the Employer will require tests after completion, as well as the testing on completion that occurs before taking over. These cases tend to involve industries in which it is important for testing to take place for an extended period or at specific times of the year after the Employer has gone into commercial use and operation of the plant or other facility, such as in the power industry or for some process plant.

The FIDIC Yellow and Silver Books in both editions provide in clause 12 for testing after completion where such tests are specified, either in the Contract (the 1999 Books) or in the Employer's Requirements (the 2017 Books). They are therefore not automatic, as in the testing before taking over, but need to be specified in advance.

The Red Book makes no express provision for testing after completion but if desired it may be provided for by the Particular Conditions (in the 1999 Book) or Special Provisions (in the 2017 Book).

The basic procedure for testing after completion is the same in both the first and second editions of the Yellow and Silver Books. The most obvious difference between the two Books is that, in the Yellow Book, the Employer carries out the tests after completion whereas in the Silver Book the Contractor carries out the tests. It might be thought that FIDIC was in some way indicating that it is more appropriate for the Silver Book Contractor to carry out tests after completion than the Yellow Book Contractor, but this is not in fact the case. The *FIDIC Guide* to the first editions makes it clear that FIDIC only intended to provide alternatives which are to be selected after an informed choice had been made and ' … not because FIDIC considers the one procedure is preferable for a P&DP contract and the other is preferable for an EPCT contract'.[12] In other words, the parties are to make an informed choice about which of the two alternatives is to apply to their particular Contract and write this into it; and this applies as much to the 2017 edition as it does to the 1999.

### 8.3.1 The Yellow Book

- *Procedure*

Clause 12.1 in both editions requires the Employer to provide all electricity, equipment, fuel, instruments, labour, materials and suitably qualified and experienced staff in order to carry out the tests on completion efficiently[13]; the tests are to be carried out in

12 *FIDIC Guide*, p. 211.

13 Clause 12.1(a) of the 2017 edition contains slightly different wording, providing expressly for the staff concerned to be competent as well as qualified and experienced in order to carry out the tests properly as well as efficiently.

accordance with operation and maintenance manuals provided by the Contractor, and with whatever guidance he may be required to give in the presence of the Contractor's personnel.

However, the 2017 Yellow Book specifically requires, under clause 12.1(b), the tests to be carried out in accordance with the Employer's Requirements (or in default as soon as reasonably practicable), and requires the Contractor to provide a test programme showing estimated timing for each test rather than merely providing for the tests to be carried out as soon as practicable after taking over. Under the 2017 edition the Employer is entitled to proceed with the tests if the Contractor does not attend at the time and place stated in the Engineer's notice giving the date and place for the tests, and in those circumstances they will be deemed to have been made in the Contractor's presence. The Contractor will also be deemed to have accepted the readings as accurate; similar provisions apply in the 1999 edition.

Since the testing after completion may occur well after the Employer has gone into use and operation of the plant or other facility, clause 12.1 in both editions of the Yellow Book provides expressly for appropriate account to be taken of the effect of the Employer's prior use of the works in evaluating the results of the tests; this evaluation is to be carried out by both parties.

- *Delayed testing*

Both editions of the Yellow Book provide in clause 12.2 for the Contractor to claim cost plus profit if the Employer's unreasonable delay causes the Contractor to incur cost. Moreover, if for reasons not attributable to the Contractor any test after completion cannot be completed during the Defects Notification Period, or any other period agreed by the parties, the relevant works or section are to be deemed to have passed that test. The Employer is therefore incentivised to avoid delaying the tests.

- *Retesting*

Clause 12.3 in both editions contains similar provisions for retesting of the works or section if they fail to pass the tests after completion. In both editions the requirement to execute work to remedy defects or damage for which a notice is given under clause 11.1(b) applies (by clause 12.3(a)). In the 2017 edition, however, clause 12.3(b) applies the procedure under clause 11.6 for further testing after the remedying of defects, rather than merely providing for either party to require the failed tests to be repeated under the same terms and conditions. The effect of this is to give a more structured procedure for the retesting. By clause 12.3 in both editions the Contractor is at risk as to any additional costs incurred to the Employer by reason of the failure to pass the tests and the retesting if the failure and retesting are attributable to the Contractor.[14]

- *Failure to pass tests*

Clause 12.4 in both editions of the Yellow Book provides for the Employer to be compensated by the Contractor for failure to pass any or all of the tests after completion by performance damages (2017 edition) or non-performance damages (1999 edition), provided these are set out in the Schedule of Performance Guarantees (2017 edition) or the Contract (1999 edition).

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14 In particular, any of the matters set out at sub-paragraphs (a)–(d) of clause 11.2 (see Section 9.2 below). The wording of these sub-paragraphs is similar in the 1999 and 2017 editions.

There are significant differences in the wording of clause 12.4 as between the two editions. In the 1999 edition clause 12.4 provides that, if the non-performance damages are paid during the Defects Notification Period, the relevant works are to be deemed to have passed the tests after completion; whereas in the 2017 edition (a) the Employer must claim the relevant performance damages and, when paid, these are expressly treated as being in full satisfaction of the Contractor's failure to pass the tests and (b), as in the 1999 edition, if the performance damages are paid during the Defects Notification Period the relevant works are to be deemed to have passed the tests. Clause 12.4 in the 2017 edition thus makes express what was implicit in the 1999 edition, namely that payment of the performance damages is in satisfaction of the Contractor's failure to pass the tests.

In both editions clause 12.4 provides for the Contractor to make adjustments or modifications to the works following the failure to pass a test after completion.

Finally, the Contractor may claim additional cost plus profit incurred to him as a result of any unreasonable delay by the Employer to give access to the works in order to enable a cause of a failure to pass the test to be investigated, or to carry out any adjustments or modifications.

### 8.3.2 The Silver Book

- *Procedure*

Clause 12.1 in both editions of the Silver Book sets out a procedure for tests after completion but very much more detail is contained in the 2017 edition.

In the 1999 edition the Contractor is to carry out the tests after completion as soon as reasonably practicable after the works have been taken over by the Employer. In the 2017 edition the Contractor must submit, by 42 days before the date of the Contractor's intended commencement of the tests, a detailed test programme, as he has to do with the tests on completion under clause 9. Similarly, the Employer may review the proposed programme and give a notice stating the extent to which it fails to comply with the Contract and within 14 days the Contractor must revise the test programme. A notice of no-objection is also deemed to have been given if the Employer fails to give such a notice within the 14 days.

In addition to any dates shown in the test programme, the Contractor in the 2017 form has to give not less than 21 days' notice to the Employer of the date after which he is ready to carry out each of the tests. The Contractor cannot commence the tests until a notice of no-objection is given or deemed to have been given by the Employer to the Contractor's test programme. At that point he must commence the tests within 14 days after the date he gave his above notice (indicating a date after which he would be able to carry the test out), or on whatever other days the Employer instructs.

In carrying out the tests the Contractor is to comply with the test programme (to which the Employer has notified/is deemed to have notified no objection), the Employer's Requirements and any operation and maintenance manuals to which the Employer has not notified/been deemed to have notified any objection under clause 5.7. The tests on completion are to be carried out in the presence of the Employer's and/or Contractor's personnel as reasonably requested by either party.

The results of the tests after completion are to be compiled and evaluated by both parties and appropriate account is to be taken of the effect of the Employer's prior use of the works. This is similar in the 1999 edition, except that the results of the tests are to be compiled and evaluated by the Contractor, who is to prepare a detailed report.

- *Delayed tests*

Clause 12.2 in both editions deals with delayed tests, and in particular provides for compensating the Contractor in the event that he is delayed from carrying out the tests, but the 2017 edition provides for this in more detail.

Clause 12.2 in the 2017 edition enables the Contractor to claim cost plus profit if, having given a notice that the works are ready for the tests after completion, he is prevented from carrying them out, or they are unduly delayed, by the Employer's personnel or a cause for which the Employer is responsible. He is then to carry out the tests as soon as practicable and in any case before expiry of the relevant Defects Notification Period and, if he incurs cost as a result of any such prevention or delay, may claim cost plus profit as indicated above. Like the 1999 edition, if for reasons not attributable to the Contractor a test after completion cannot be completed during the Defects Notification Period, or any other period agreed by the parties, then the works or section are to be deemed to have passed the relevant test.

- *Retesting and failure to pass tests*

Clauses 12.3 and 12.4 in the 2017 Silver Book, dealing respectively with retesting and failure to pass the tests after completion/performance damages, are in the same terms as the 2017 Yellow Book, discussed above. Clauses 12.3 and 12.4 of the 1999 Silver Book are also in the same terms as those clauses in the 1999 Yellow Book.

# 9

# Defects After Taking Over, Acceptance of the Works and Unfulfilled Obligations

The works are taken over when they have been completed subject to relatively minor items of incomplete or defective/damaged work so that the Employer can go into commercial use and occupation of the plant or other facility. The issue or deemed issue of the Taking-Over Certificate signifies the commencement of the Defects Notification Period (DNP), during which the Contractor is to complete outstanding items of work and rectify defective or damaged ones so that the works become fully compliant with the Contract requirements and may be accepted by the Employer. Typically at taking over the Engineer/Employer will agree with the Contractor a punch list or list of snagging items which the Contractor is to attend to during the DNP; others may be notified during the period.

The DNP is a defects *notification* period because the Contractor's obligation is to attend to defective or damaged items which are notified to him; he does not have a duty proactively to search out such items to correct. He has, however, an obligation to complete any work which is outstanding at taking over without receiving a notice. A similar distinction between rectifying defective or damaged items and completing work which remains to be completed at taking over is made in the 1999 editions (clause 11.1). Clause 11 in both editions of the contracts in general covers the same topics and in largely similar terms, but the 2017 clause does so in more detail and with certain important differences, such as in respect of unfulfilled obligations.[1]

The parties are to state the period for the DNP in the Contract Data (in the 2017 forms) or (in the 1999 editions) the Particular Conditions. The default position in the three forms in both editions is 12 months (that is, 12 months applies in default of the parties' agreeing any other period). There is provision in both editions for the DNP to be extended in certain circumstances and under the general conditions this will be for no longer than two years, although it is of course open to the parties to provide for a different maximum extension period if they wish.

## 9.1 Contractor's Basic Obligation

Clause 11.1 deals with the Contractor's basic obligation to rectify or complete outstanding items of work after taking over and is in the same terms in the three 2017 forms.

1 See Section 9.6 below.

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In order to ensure the works and Contractor's documents comply with the Contract the Contractor, by expiry of the relevant DNP or as soon as practicable thereafter, must (a) complete any work outstanding at the relevant completion date within whatever time is stated in the Taking-Over Certificate, or reasonable time instructed by the Engineer/Employer, and (b) carry out any work required to remedy defects or damage of which the Contractor is notified (by or on behalf of the Employer) by expiry of the DNP.

If a defect appears or damage occurs during the DNP the Contractor is to be notified and then must promptly (a) inspect the defect or damage jointly with the Employer's personnel and (b) prepare and submit a proposal for the necessary remedial work, which proposal may be reviewed by the Engineer/Employer (under paras 2–4 of clause 7.5 (dealing with defects and rejection)).[2]

## 9.2 Who Is Responsible for the Cost?

The three forms in both editions provide for who is to bear the cost of carrying out work to rectify defective or damaged items. If the defect or damage is attributable to the Contractor he is to bear the cost and take any associated risk; if, however, the work is attributable to any other cause it is to be treated as having been carried out pursuant to an instructed variation under clause 13.3.1.

Clause 11.2 of the 2017 Yellow and Silver Books[3] thus provides that work to rectify defects or damage during the DNP is to be executed at the Contractor's risk and cost to the extent that the work is attributable to (a) design (except in respect of any part of the design for which the Employer is responsible); (b) non-compliant plant, materials or workmanship; (c) improper operation or maintenance attributable to matters for which the Contractor is responsible under clauses 5.5, 5.6 and 5.7[4] or otherwise; or (d) the Contractor's non-compliance with any other obligation under the Contract.

If the Contractor considers that the work is attributable to any cause other than those just mentioned he must promptly give a notice to the Engineer/Employer. The Engineer/Employer's Representative is then to proceed under clause 3.7/3.5 to agree or determine the cause.[5] If it is agreed or determined that the work is attributable to another cause then clause 13.3.1 applies as if the work had been instructed as a variation.[6]

## 9.3 Extending the DNP

As noted above, the DNP can be extended in certain circumstances. These are the same in the three 2017 Books. Clause 11.3 provides that the DNP can be extended, subject

2 See Section 6.2.3 above.

3 The wording of this clause is very similar in the Red Book, with allowances for the limited design responsibility of the Red Book Contractor.

4 Relating to training, as-built records and operation and maintenance manuals: see Section 5.3 above.

5 For purposes of the time limits under clause 3.7.3/3.5.5 the date of this notice is the date of commencement of the time limit for the agreement.

6 See Section 11.4.1 below.

to the Employer's making a claim under clause 20.2, to the extent that following taking over the works, section or part, or a major item of plant, cannot be used for the intended purpose by reason of a defect or damage attributable to any of the matters referred to in clause 11.2(a)–(d) for which the Contractor is responsible.[7] The permitted extension period is to be no more than two years after expiry of the DNP stated in the Contract Data.

Some protection is provided to the Contractor where the works have been suspended (a) under clause 8.9 and the cause of the suspension was not the Contractor's responsibility or (b) under clause 16.1 for some default of the Employer. If delivery and/or erection of plant and/or materials was suspended in either of those situations then the Contractor's obligations under clause 11 generally will not apply to any defects or damage occurring more than two years after the DNP for the works, of which the plant and/or materials form a part, would otherwise have expired. So if taking over was delayed by reason of such a suspension then the Contractor would not be responsible for rectifying any damage or defects occurring more than two years after the DNP would have expired but for the suspension, regardless of when the DNP had been extended to.

## 9.4 Other Obligations

Clause 11.4 in the three 2017 Books provides for steps that the Employer may take if the remedying of any defect or damage under clause 11.1 is unduly delayed by the Contractor. These remedies ultimately extend to termination of the Contract.

Clause 11.5 provides for remedying of defective plant off site, and enables the Contractor to apply on notice to the Employer requesting consent to remove the defective or damaged plant from the site for purposes of repair.

Clause 11.6 provides for further testing after the remedying of any defects, and clause 11.7 provides for right of access after taking over, in particular after issue of the Performance Certificate. Under clause 11.7 the Contractor has the right until 28 days after issue of the Performance Certificate to access to all parts of the works, and all records of the operation, maintenance and performance of the works, except to the extent that this may be inconsistent with the Employer's reasonable security restrictions. The Contractor's right of access is also provided for under this clause if the Contractor intends to access any parts of the works or such records during the DNP. Clause 11.11 then provides for the Contractor to clear the site promptly after the Performance Certificate has been issued.

Clause 11.8 in the three 2017 Books imposes on the Contractor an obligation, if instructed by the Engineer/Employer, to search for the cause of any defect under the direction of the Engineer/Employer. Unless the defect is to be remedied at the Contractor's cost under clause 11.2, he is entitled to claim under clause 20.2 for payment of cost plus profit for the search. If the Contractor fails to carry out the search as required by clause 11.8 it may be carried out by the Employer's personnel, in which case the Employer may be able to claim payment of the reasonably incurred costs of the search from the Contractor.

Two provisions of clause 11 in particular deserve attention.

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7 See Section 9.2 above, second paragraph.

## 9.5 Performance Certificate

The first is clause 11.9, which provides for issue of the Performance Certificate. This is the certificate issued at the end of the DNP and alone signifies acceptance by the Employer of the works. Clause 11.9 is in similar terms[8] in the three 2017 Books. The clause provides that performance of the Contractor's obligations under the Contract is not to be considered complete until the Engineer/Employer has issued the Performance Certificate, stating the date when the Contractor has fulfilled his obligations under the Contract.

The Certificate is to be issued within 28 days after the latest of the expiry dates of the DNP or as soon after that date as the Contractor has (a) supplied all the Contractor's documents, and (in the Yellow and Silver Books) the Engineer/Employer has or is deemed to have given a notice of no-objection to the updated as-built records, and (b) completed and tested all the works as required by the Contract, including remedying any defects.

If the Engineer/Employer fails to issue the Performance Certificate within this period of 28 days the Certificate is deemed issued on the date 28 days after it should have been issued under clause 11.9.

Thus a timetable is provided for issue of the Performance Certificate with a deeming provision if the Engineer/Employer fails to do so within the prescribed 28-day period. It is expressly provided by clause 11.9 that the Performance Certificate alone constitutes acceptance of the works.

The second half of the retention money also becomes due to the Contractor after expiry of the DNP and thus by the time the Performance Certificate is issued.

## 9.6 Unfulfilled Obligations

The second provision to consider is clause 11.10, which is in the same terms in the three 2017 forms and provides for unfulfilled obligations.

After the issue of the Performance Certificate each party remains liable for the fulfilment of any obligation which remains unperformed at that time. For purposes of determining the nature and extent of unperformed obligations the Contract is to be deemed to remain in force. In relation to plant, however, the second paragraph of clause 11.10 creates an exception. The Contractor is not to be liable for any defects or damage occurring more than two years after expiry of the DNP for plant, unless such a limitation is prohibited by law, or in any case of fraud, gross negligence, deliberate default or reckless misconduct.

Clause 11.10 is an important provision, especially for the Contractor in relation to defects that occur or appear following acceptance of the works. If, for example, defects in the Contractor's design of the works become apparent after the Performance Certificate has been issued he remains liable and his obligations as to fitness for purpose or otherwise remain in force for purposes of determining which of his obligations were not properly performed. Expiry of the DNP and acceptance of the works by issue of the

8 Clause 11.9 in the Red Book differs from the Yellow and Silver Books in that sub-paragraph (a) makes no reference to as-built records.

Performance Certificate do not signify the end of the Contractor's potential liability in respect of any of his obligations.

The relevant obligations need not be contractual only. Depending on the governing and/or local law, the Contractor might owe duties and have liabilities in addition to those arising under the Contract. These duties may be owed to the Employer and/or to third parties. The Contractor might in certain circumstances owe the Employer duties of care in addition to the duties owed under the Contract.[9] He might also owe duties to third parties with respect, for example, to the integrity of the structure he builds and/or designs; if a person suffers injury as a result of, say, a collapse of the structure he may be liable.[10]

The duration of any liability will depend on the governing and/or local law. Particular regard must be had to any time limits for bringing claims. A claim against the Contractor under or for breach of the Contract, for example, must be brought within the time permitted by the rules applying in the jurisdiction in which the Employer wishes to bring the claim, and these rules may apply to claims brought in an arbitration as well as in the local court.

As mentioned above, the second paragraph of clause 11.10 in the 2017 editions creates an exception in respect of plant; this is a new feature of the 2017 editions, not present in the 1999 editions. The Contractor has no liability for any defects or damage occurring more than two years after expiry of the DNP for the plant unless (a) this limitation is prohibited by law or (b) in any case where there is fraud, gross negligence, deliberate default or reckless misconduct. The exception accommodates concerns expressed by plant suppliers about open-ended liability and achieves a compromise by limiting the Contractor's liability in respect of the plant to two years after expiry of the DNP, subject to the governing and/or local law and excluding the cases of serious default mentioned in (b) above.

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9 See the discussion of the English cases on this topic in *Robinson v P E Jones (Contractors) Ltd* [2011] EWCA Civ 9; *Broster v Galliard Docklands Ltd* [2011] EWHC 1722 (TCC), per Akenhead J at [21]. In practice a concurrent duty of care is only likely to be of importance when a claim for breach of a contractual duty might be statute barred (that is, prevented from proceeding because it is too late under the rules limiting when an action may be brought).

10 In civil law systems there are widely applied concepts of decennial or ten-year liability, which may in certain jurisdictions be strict and therefore not depend on any fault. In France, for example, contractors must take out insurance to guard against such liabilities. In common law jurisdictions the contractor may have a tortious liability in respect of any injury to persons resulting from, for example, a defect in design or workmanship. The Employer might want to rely on clause 11.10 if he faces proceedings in respect of which he may be able, depending on the applicable law, to obtain an indemnity or contribution from the Contractor. Thus a third party may have an available cause of action against the Employer in respect of a latent defect for which the Contractor is responsible (in that it relates to an unfulfilled obligation under the FIDIC contract) and the Employer, relying on clause 11.10, may seek to be indemnified by or obtain a contribution from the Contractor in respect of the third party's claim.

# 10

# Measurement, the Price and Payment

The FIDIC forms in both editions contain detailed provision for the pricing of the works and the procedure for and timing of payments to the Contractor. Since the Red Book is a re-measurement form of contract specific provision for the measurement of the works, the method of measurement to be used and the valuation of the measured works needs to be made and this is to be found in clause 12 in both editions. Clause 14 in all three Books deals with the Contract Price and the procedure and timing of payments.

Although the Red Book is a re-measurement form it is possible to convert it into a fixed price lump sum contract by suitably worded Particular Conditions, and the Guidance on the preparation of Special Conditions given at the back of the 2017 edition (and its equivalent in the 1999 edition) contains example clauses for this purpose. As the Guidance makes clear, converting to a lump sum contract might be sensible where the tender documents contain a sufficiently high level of detail for construction and for significant variations to be unlikely, and where the Contractor is able, from the information supplied in the tender documents, to prepare any other necessary details and construct the works without having to refer back to the Engineer for clarification or further information. However, the Guidance also points out that if significant design input by the Contractor is required a Yellow Book form may be more appropriate.

The Yellow Book form may itself contain Particular Conditions which identify parts of the works to be paid for according to the quantity supplied or work done rather than as part of the fixed price. In that event, the provisions for measurement and valuation should be stated in the Particular Conditions; the Contract Price will be valued accordingly, subject to adjustments in accordance with the Contract (clause 14.1). The Guidance on the preparation of Special Conditions for the 2017 Yellow Book gives an example of wording for a measurement basis which reproduces clause 12.1 of the 2017 Red Book.

## 10.1 Measurement and Valuation: Clause 12 of the 2017 Red Book

### 10.1.1 Measurement Procedures

Clause 12.1 sets out procedures to be followed for the measurement of the works and valuation for payment.

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The works may be measured either (a) when the Engineer requires any part of them to be measured on site or (b) when any part of the works are to be measured from records.

Where the works are to be measured on site, notice (of no fewer than seven days) has to be given to the Contractor stating the date and place on site at which the measurement will be made, so that the Contractor can send a suitable representative.

If works are to be measured from records, these should be identified in the Specification. Again notice (seven days) is required to the Contractor stating the date and place at which the Contractor's representative should attend in order to examine and agree the records with the Engineer.

In both cases, whether of measurement on site or from records, if the Contractor fails to attend on the date and place stated in the Engineer's notice, or as otherwise agreed, the Contractor is deemed to have accepted the measurement or the records as accurate.

Again in both cases, if the Contractor considers that the measurement on site or records are inaccurate then he must give a notice to the Engineer within 14 days setting out his reasons, otherwise the Contractor will be deemed to have accepted the measurement as accurate.

### 10.1.2 Method of Measurement

Clause 12.2 provides for the method of measurement to be as stated in the Contract Data, or if not so stated then in accordance with the Bills of Quantities or other applicable schedule.[1]

### 10.1.3 Valuation

Clause 12.3 sets out rules for the valuation of the works. The Engineer is to value each item of work by applying the measurement agreed or determined in accordance with clauses 12.1 and 12.2 and the appropriate rate or price for the item.

The appropriate rate or price for an item is the rate or price specified for it in the Bills of Quantities or other schedule, or if there is no such item then it is a rate or price specified for similar work. What is similar work in a particular case will depend on the circumstances. The *FIDIC Guide* suggests that similar work may mean similar in terms of work being of similar character and executed under similar conditions.[2]

Where there is no rate or price specified for an item identified in the Bills of Quantities or other schedule, then that item is deemed to be included in other rates and prices in the Bills or other schedule.

Provision is made in clause 12.3 for agreeing a new rate or price for an item of work (if, for example, the item is not identified in the Bills or other schedule, and no specified

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1 'Schedules' is defined in clause 1 of the 2017 forms to mean documents entitled 'schedules' prepared by the Employer and completed by the Contractor and as attached to the Letter of Tender (Red and Yellow Books) or Tender (Silver Book) and included in the Contract. Such documents may include data, lists and schedules of payments and/or rates and prices, and guarantees. The expression is thus a comprehensive one referring to a specific sub-class of contract documents identified as schedules and containing the categories of information mentioned. Specific kinds of schedule are defined in clause 1, in particular a schedule of payments (all three forms), schedule of performance guarantees and schedule of rates and prices (Yellow and Silver Books).

2 See *FIDIC Guide*, p. 209; and note the wording in clause 12.3(b)(iii) 1999 edition and 12.3(a) 2017 edition.

rate or price is appropriate because the work is not of a similar character) and the clause 3.7 agreement/determination procedure applies in the event of any failure to agree an appropriate rate or price.

### 10.1.4 Omissions

Clause 12.4 makes provision for omissions of work which form part or all of a variation whose value has not been agreed. In that event the Contractor includes details of the omission in the Contractor's proposal for an adjustment to the Contract price under clause 13.3.1 to reflect any costs the Contractor incurred as a result of the omission which he is unable to recover by any other items or any substituted work.

## 10.2 The Contract Price

The Employer's fundamental obligation under the FIDIC as in other forms of contract is to pay the Contractor the price for the work contracted for in accordance with the payment terms of the Contract. Clause 14.1 in the three forms defines and describes the Contract Price in different ways.

### 10.2.1 Yellow Book

In the 2017 Yellow Book clause 14.1 provides that, unless the Particular Conditions state otherwise, the Contract Price is the lump sum Accepted Contract Amount which is to be subject to adjustments, additions and/or deductions in accordance with the Contract (sub-paragraph (a)).

As we have seen, the Accepted Contract Amount is the amount for the execution of the works accepted by the Employer in the Letter of Acceptance at the outset of the project. Sub-paragraph (a) explicitly provides for that Amount to be subject to adjustments, additions and/or deductions in accordance with the Contract so that, although the Contract Price is always a lump sum, it is fixed only in the sense that the Contractor, rather than being entitled to payment for the works as measured, is entitled to the Accepted Contract Amount as adjusted, added to and/or reduced in accordance with the Contract; for example, to reflect an entitlement to cost plus profit in respect of variations.

The clause also provides, by sub-paragraph (b), that the Contractor is to pay all taxes, duties and fees required to be paid by him under the Contract and the Contract Price is not to be adjusted for any such costs, unless an adjustment is permitted under clause 13.6 in respect of changes in applicable laws.[3]

Sub-paragraphs (c) and (d) then provide respectively that if the Contract documents include a schedule containing quantities those quantities are to be treated as estimates only, and they and any price data set out in a schedule are to be used only for the purposes stated in that schedule.

Clause 14.1 concludes by making provision for items which are to be paid according to quantity supplied or work done; in that event the measurement and valuation provisions

3 See Section 11.4.1 below.

are to be as set out in the Particular Conditions and the Contract Price is to be valued accordingly, subject to any adjustments in accordance with the Contract.

### 10.2.2 Red Book

Clause 14.1 in the 2017 Red Book provides that, unless the Particular Conditions otherwise state, the Contract Price is the value of the works in accordance with clause 12.3, that is, their value as ascertained by multiplying work items as measured by the relevant unit rate (sub-paragraph (a)). As with the Yellow Book, this value is to be subject to adjustments, additions and/or deductions in accordance with the Contract.

Also like the Yellow Book, sub-paragraph (b) of the clause makes it clear that, apart from the exception in clause 13.6 concerning a change in the applicable law, any taxes, duties and fees required to be paid by the Contractor under the Contract are to be treated as included in the Contract Price and will not be subject to adjustment.

Sub-paragraph (c) contains detail about quantities appearing in the Contract documents. Any quantities appearing in the Bills of Quantities or other Contract schedule are to be taken as estimated only for both the works and for purposes of measurement and valuation under clause 12. Sub-paragraph (d) then contains a requirement (not found in the Yellow or Silver Books) for the Contractor to provide a breakdown of each lump sum price, if any, in the Contract schedules; this is for purposes of assisting the Engineer, for example to value variations, but it is made clear that he will not be bound by any breakdown the Contractor provides.

### 10.2.3 Silver Book

The provisions of clause 14.1 in the 2017 Silver Book, like those in the other two Books, are subject to whatever may be stated in the Particular Conditions.

Unlike the other two Books, sub-paragraph (a) of clause 14.1 in the Silver Book states the Employer's obligation to pay the 'lump sum Contract Price stated in the Contract Agreement' rather than defining the Contract Price itself; the definition is instead given in clause 1.1.10 as '…the agreed amount stated in the Contract Agreement for the execution of the Works, and includes adjustments (if any) in accordance with the Contract'. This difference is a carry-through from the different wording in the 1999 editions and does not have much significance. In both the Silver and Yellow Books the Contract Price is the lump sum amount stated in the document whose receipt or execution forms the Contract (the Letter of Acceptance in the Yellow Book, the Contract Agreement in the Silver) and is subject to adjustment upwards or downwards; that this is so in the Silver Book is made explicit in the second part of sub-paragraph (a): '…subject to adjustments, additions … and/or deductions in accordance with the Contract'.

Sub-paragraph (b) of clause 14.1 in the Silver Book is the same as in the Red and Yellow Books: apart from the exception in clause 13.6 concerning a change in applicable laws, any taxes, duties and fees required to be paid by the Contractor under the Contract are to be treated as included in the Contract Price and will not be subject to adjustment.

The Silver Book clause 14.1 sub-paragraph (c) is in similar terms to sub-paragraphs (c) and (d) of clause 14.1 in the Yellow Book: if any quantities are set out in a schedule, they are not to be taken as the actual and correct quantities of the works which the Contractor is required to execute and are to be used only for the purpose or purposes stated in the

schedule. There is, however, no provision for parts of the works to be paid for and valued on whatever measurement basis may be stated in the Particular Conditions (as there is in the last paragraph of clause 14.1 in the Yellow Book), since the Silver Book does not contemplate that any part of the works will be valued on a measurement basis.

## 10.3 Advance Payment

The three forms, in both editions, provide for the Contractor to receive an advance payment as an interest-free loan from the Employer in order to enable him to mobilise and design the works (or, in the Red Book, to design the works if the Contract so provides). Clause 14.2 in the 2017 forms contains detailed provisions concerning advance payments.

Before any advance payment is due, the Contract Data must specify an amount. The advance payment must then be in that amount and the currencies in which it is to be paid need to be stated in the Contract Data.

In order to prevent the Contractor from taking the advance payment but not proceeding with the works he must provide, at his own cost, an advance payment guarantee in an equivalent amount and in the relevant currency. Clause 14.2.1 in the 2017 forms sets out rules for the Contractor to provide such a guarantee from an entity, within a jurisdiction and in a form which is acceptable to the Employer. The Contractor has continuing obligations to ensure that the guarantee remains valid and enforceable until the advance payment has been repaid, subject to the amount being progressively reduced by amounts repaid by the Contractor as the project proceeds. There is also provision in the three forms for the advance payment guarantee to be extended until the advance payment has been repaid.

In all three Books provision is made (a) for the advance payment to be made only after the Employer has received both the performance security (under clause 4.2[4]) and the advance payment guarantee[5] and (b) for repayment of the advance by percentage deductions either in payment certificates (if Red or Yellow Books) or from the payments themselves (if Silver Book).

## 10.4 Plant and Materials Intended for the Works

Clause 14.5 in the 2017 forms provides for the Contractor to include in his applications for interim payments an amount to be added for plant and materials which have been shipped or delivered to the site for incorporation into the permanent works, and for an amount to be deducted when the contract value of such plant and materials becomes included in parts of the permanent works under clause 14.3(i) (see Section 10.5 below).

Thus the Contractor is assisted in his cash-flow by receiving payments for plant and materials intended for use in the works at the stage when they have been shipped or

4 See Section 4.2 above.

5 The Engineer in the Red and Yellow Books issues an Advance Payment Certificate under clause 14.2.2 within 14 days of receipt of (a) the performance security and advance payment guarantee and (b) the Contractor's application for the advance payment; in the Silver Book (clause 14.2.2) the Employer is to make the advance payment within 14 days of receipt of those documents.

delivered to site, with provision made for corresponding deductions when the plant and materials become incorporated into the permanent works.

Clause 14.5 applies clause 3.7, or 3.5 in the Silver Book, to require agreement or determination of the amount to be added for plant and materials, subject to certain conditions set out in sub-paragraphs (a) to (c). In summary, the Contractor must keep adequate records and be able to provide sufficient evidence to show that the plant or materials comply with the Contract and of the cost of acquiring and shipping or delivering the plant and materials to the site; and the relevant plant or materials must either have been shipped or delivered to the site.

## 10.5 The Payment Process

The procedure for the Contractor to apply for and obtain payment and the timing of payments to the Contractor, as well as the consequences of late payment, are the same in all three 2017 forms except that, in the Silver Book, the Employer or his Representative does not issue payment certificates; where in the Red and Yellow Books the Engineer issues certificates which trigger the Employer's obligation to make the corresponding payments, the Employer in the Silver Book makes payments as they fall due to be paid. Thus clause 14.7 in the Red and Yellow Books states the Employer's obligation to pay the Contractor amounts certified (for example, in an interim payment certificate, or IPC) whereas clause 14.7 in the Silver Book states the Employer's obligation to make payments when they fall due to be paid under the applicable clauses of the Contract.

Payments to the Contractor proceed according to (a) applications made by him during execution and following completion of the works and (b) their consideration by the Engineer or Employer and subsequent certification (in the Red and Yellow Books) or payment as due (in the Silver Book). Apart from the advance payment under clause 14.2 (see Section 10.3 above), there are two main types of payment to be made to the Contractor under the three forms:

(a) Interim payments, which are made during and following completion of the works. The Contractor applies under clause 14.3 for an interim payment (see Section 10.5.1 below) and the Engineer/Employer certifies/makes the relevant payment under clause 14.6. If the Contract includes a schedule of payments specifying the instalments in which the Contract Price is to be paid then, unless the schedule otherwise states, the instalments mentioned in the schedule are to be treated as the estimated contract values for purposes of an application under clause 14.3.
The payment cycle for interim payments is as specified in the Contract Data, or in default at the end of each month (14.3). Interim payments are made during the execution of the works and (a) following taking over (14.10) and (b) where a Final Statement is partially agreed or deemed to have been partially agreed under clause 14.13 (see Section 10.5.5 below).

(b) The Final Payment, which is to be made within the period specified in the Contract Data (or within 56 days if no period is specified) after the Employer receives the Final Payment Certificate under clause 14.13 (if Red or Yellow Book) or the documents specified in clause 14.7(c) (if Silver Book).

### 10.5.1 Interim Payments

(a) Applying for interim payments

The procedure for the Contractor to apply for interim payments is the same in all three 2017 forms and is set out in clause 14.3.

The Contractor submits a statement to the Engineer/Employer at the end of each payment period stated in the Contract Data (or in default after the end of each month) in an acceptable form showing the amounts which the Contractor considers he is entitled to with supporting documents and in sufficient detail to enable the Engineer/Employer to investigate the amounts applied for.

The list of information needed to be included in the statement is described in rather more detail than in the 1999 editions but covers most of the same items.[6] As well as including the estimated contract value of the works executed (and the Contractor's documents produced) up to the end of the payment period, including variations, and any amounts to be added and/or deducted for changes in applicable laws under clause 13.6, the list covers (among other items) amounts to be deducted for retention; additions or deductions consequent on clause 3.7/3.5 agreements or determinations and any other additions or deductions which have become due under the Contract or otherwise. The interim payment application should also include the monthly progress report required under clause 4.20.

(b) Schedule of payments

Clause 14.4 in the three 2017 forms provides for a schedule of payments, according to milestones or stages achieved by the Contractor. Any of the contracts may include such a schedule, specifying the instalments in which the Contract Price will be paid. If the Contract includes a schedule of payments, then, unless the schedule says otherwise, the instalments set out in the schedule are to be treated as the estimated contract values for purposes of interim payments under clause 14.3 (sub-paragraph (i)). In the 2017 Red and Yellow Books clause 14.5, relating to plant and materials intended for the works (see Section 10.4 above), will not apply if there is a schedule of payments.

Often the instalments due under a schedule of payments or milestones will be defined by reference to actual progress achieved in the execution of the works. This will require careful definition of precisely when the milestone has been completed and the instalment payment due. The FIDIC forms also allow for instalments to be defined in other ways; for example, the schedule of payments may set out an amount or percentage of the estimated final Contract Price for each month or other period during the time for completion of the works.[7]

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6 The three additional items covered in the 2017 editions, by comparison with clause 14.3 of the 1999 Red and Yellow Books, are amounts to be added for provisional sums under clause 13.4; any amount to be added for release of retention money under clause 14.9; and any amount to be deducted for the Contractor's use of utilities provided by the Employer under clause 4.19. The 1999 Silver Book differs from the 1999 Red and Yellow Books in that the list of items to be included in an interim payment application under clause 14.3 does not include amounts to be added and/or deducted for plant and materials intended for the works under clause 14.5. This discrepancy has been removed in the 2017 editions, which now provide for the same items to be included.

7 See the Notes on the preparation of Special Provisions at the back of the 2017 forms under clause 14.4. As noted there, such a basis for a schedule of payments may be unreasonable if the Contractor's progress differs significantly from the expectation on which the schedule was based. The parties will need to consider carefully how to define a schedule of payments other than on the basis of actual progress.

If the instalments are not defined by reference to actual progress then, if actual progress is found by the Engineer/Employer to differ from that on which the schedule of payments was based, the Engineer/Employer's Representative may proceed under clause 3.7/3.5 to agree or determine revised instalments in order to reflect the extent to which progress differs from whatever anticipated progress was used as the basis of the schedule of payments. If the clause 3.7/3.5 agreement/determination procedure is used then the date when the difference between actual and anticipated progress was found by the Engineer/Employer is to be treated as the date of commencement of the time limit for agreement under clause 3.7.3/3.5.3.

The Contract might not include any schedule of payments. In that event, however, the three 2017 forms require the Contractor to do a degree of forward planning, in that he has to submit non-binding estimates of the payments which he expects to become due during each period of three months. The first estimate has to be submitted within 42 days after the commencement date, revised estimates then being submitted at intervals of three months until the issue of the Taking-Over Certificate. This procedure also applies under the 1999 editions.

(c) Simplified valuations

The Notes on the Preparation of Special Conditions at the back of the 2017 Yellow and Silver Books give an example of a clause which might apply for interim valuations where the works consist of only a few different types of operation. In that event a simple measurement approach for interim valuations may be appropriate. The example clause provides for a bill of principal quantities for the permanent works together with any supporting information and calculations reasonably required by the Engineer/Employer. This bill should include the anticipated final quantities of the principal items of the permanent works, which must have been priced using all-in rates such that the total amount equals the estimated final Contract Price. The value of each element of the works and of any other work elements not described in the bill must each be included in the rates for permanent works which are to be constructed after the element is carried out.

This bill of principal quantities is to be subject to review and is without prejudice to the final amount due under the Contract; it may moreover be revised and reissued by the Contractor if it appears at any time before taking over that it will not fully represent the permanent works when complete, so giving the Contractor a measure of protection. During the time for completion the Contract value for purposes of interim payments under clause 14.3 (sub-paragraph (i)) is not to exceed the amount calculated from the current bill of principal quantities, based on the quantities of permanent works which have been constructed in accordance with the Contract.

(d) Issue of Interim Payment Certificate (IPC)/Interim Payment Notice

Clause 14.6 in both editions of the Red, Yellow and Silver Books deals with the procedure for issuing an Interim Payment Certificate (IPC), if the Red and Yellow Books, or a notice identifying the amount due to the Contractor, if the Silver Book. In the 2017 editions, however, clause 14.6 sets out the procedure in more detail, making significant changes to the 1999 editions in the process, and brings the Silver Book more into line with the Red and Yellow Books.

- *2017 Red and Yellow Books*

Clause 14.6 is in the same terms in both Books.

The first paragraph of clause 14.6 makes the issue of an IPC contingent on both the Employer's receiving the performance security and the Contractor's appointing a representative. This is a significant change from the 1999 editions, where the Contractor has to provide the performance security before any amount may be certified or paid to him but does not have first to appoint his representative (even though doing so is required under clause 4.3). This change is in keeping with the greater emphasis on effective project management found in the 2017 editions and the corresponding importance placed on ensuring the Contractor's Representative is in place as required under clause 4.3.

By clause 14.6.1 the Engineer within 28 days after receiving the Contractor's statement and supporting documents is to issue an IPC to the Employer, with a copy to the Contractor (a) stating the amount which the Engineer fairly considers to be due and (b) including any additions and/or deductions which have become due under any agreements or determinations pursuant to clause 3.7, or under the Contract or otherwise, with detailed supporting particulars. These particulars are to identify any difference between a certified amount and the corresponding amount in the statement and give the reasons for this difference.

The requirement for the Engineer to identify any difference between a certified amount and the corresponding amount in the Contractor's statement, giving reasons for the difference, marks a second significant change from the 1999 editions of the two Books, where it is not required. Its absence often leads to dissatisfaction by Contractors, who feel that their statements may not have been sufficiently or correctly considered by the Engineer before issuing a certificate. Requiring the Engineer to state his reasons for the discrepancy enables the Contractor to understand the Engineer's position and may help avoid or at least reduce the scope for disagreement or dispute.

The 1999 editions also make provision for withholding amounts in an IPC, but clause 14.6.2 of the 2017 editions adds a new express entitlement, in sub-paragraph (c), for the Engineer to take account, in deciding the amount of the IPC, of the extent to which any significant error or discrepancy in the Contractor's statement or supporting documents has prevented or prejudiced a proper investigation of the amounts in the statement until it is corrected by the Contractor in a subsequent statement. Under the 1999 editions the Engineer cannot take any such errors or discrepancies into account in determining the amount of the IPC but is confined, by the third paragraph of clause 14.6, to defects and/or the Contractor's failing to perform his obligations (sub-paragraphs (a) and (b), third paragraph).

A third principal difference between the 1999 edition of the two Books and the 2017 edition is the greater scope for the Contractor to correct amounts certified in an IPC. The final paragraph of clause 14.6.3 enables the Contractor to identify in the next statement any amounts which he considers he is entitled to which were not included in the current IPC, thereby obliging the Engineer to make any correction or modification that ought to be made in the next IPC. Provision is also made for the Contractor to refer the matter to the Engineer under clause 3.7 to the extent that he is not satisfied that the next IPC includes the above identified amounts (and the identified amounts do not concern a matter for which the Engineer is already carrying out a clause 3.7 agreement or determination procedure). This sets out more systematically and clearly for both parties what is to happen in this fairly common situation, since under the 1999 editions it is

merely provided that the Engineer may in any payment certificate make corrections or modifications which should properly be made.

- *2017 Silver Book*

The first paragraph of clause 14.6, as in the 2017 Red and Yellow Books, makes interim payments dependent on the Contractor's providing the performance security required under clause 4.2.1 and appointing his representative in accordance with clause 4.3.

Since there are no payment certificates in the Silver Book, the Employer in the Silver Book issues a notice to the Contractor under clause 14.6.1, according to the same 28-day timetable as in the Red and Yellow Books, and also identifies any difference between a notified amount and the corresponding amount in the Contractor's statement, with reasons.

Also like the other two Books, but marking a significant change from the 1999 edition of the Silver Book, the 2017 Silver Book requires the Employer to consider fairly the amount due for the interim payment (sub-paragraph (a)), whereas in the 1999 edition the Employer merely has to notify the Contractor of any items in the statement with which he disagrees, with supporting particulars. This is a distinct improvement on the 1999 form, and brings the Silver Book more into line with the other two Books on interim payments. It is worth noting that the 1999 edition of the Red and Yellow Books had already required the Engineer to 'fairly determine' the amount due in an interim certificate (see first paragraph of clause 14.6), so the change effected by the 2017 edition (to 'fairly consider') is not as great in their case.

The provisions in clause 14.6.2, relating to withholding amounts in an interim payment, mirror those of the corresponding clause in the Red and Yellow Books relating to withholding amounts in an IPC. Similarly, the scope for the Employer to correct or modify a previous interim payment, together with the Contractor's right to identify sums which he considers should have been included in an interim payment, mirror the corresponding provisions in clause 14.6.3 of the Red and Yellow Books.

### 10.5.2 Statement at Completion

In addition to interim payments made during the execution of the works, the Contractor is entitled to an interim payment after the works have been taken over. Clause 14.10 in the three 2017 forms provides for the Contractor to submit to the Engineer/Employer within 84 days after the date of completion stated in the Taking-Over Certificate a statement, with supporting documents, in accordance with clause 14.3 showing (a) the value of all work done in accordance with the Contract up to the date of completion, (b) any further sums which the Contractor considers to be due at the date of completion and (c) an estimate of any other amounts which the Contractor considers have or will become due after the date of completion, under the Contract or otherwise; these estimated amounts have to be shown separately and include estimated amounts for any claims which the Contractor has submitted, any matter referred to a DAAB and any matter for which a Notice of Dissatisfaction has been given under clause 21.4.[8] The Engineer/Employer is then to issue an IPC (Red and Yellow Books) or an interim payment notice (Silver Book) under clause 14.6.

8 See Section 16.2.6 below.

### 10.5.3 Final Statement

The final payment due to the Contractor under the three 2017 forms, as under the 1999 editions, is made after the Performance Certificate has been issued. In the 2017 forms the payment is made following a process of submission of a draft Final Statement by the Contractor, resulting in an agreed Final Statement or a Partially Agreed Final Statement together with a form of discharge. Although similar to the procedure set out in the 1999 editions, the new procedure provides for a Partially Agreed Final Statement and is somewhat more detailed.

Clause 14.11 in the three 2017 forms is in the same terms. It provides for the Contractor to submit a statement in draft to the Engineer/Employer within 56 days of the Performance Certificate setting out (a) the value of the work done (b) any further sums which the Contractor considers to be due at the date of the issue of the Performance Certificate and (c) an estimate of any other amounts which the Contractor considers have or will become due after the issue of the Performance Certificate; these estimated amounts are to include the matters described in sub-paragraphs (c)(i) to (iii) of clause 14.10, dealing with the Statement at Completion, and thus cover any claims for which the Contractor has submitted a notice, any matter referred to a DAAB and/or any matter for which a Notice of Dissatisfaction with a DAAB decision has been given.

If there are no estimated amounts under (c) above, and the Contractor and Engineer/Employer can agree the amounts in the draft Final Statement, the Contractor is to prepare an agreed final statement, referred to in the Contract conditions as 'the Final Statement'. If, on the other hand, there are amounts under (c) above, and/or following discussions it becomes clear that the Contractor and the Engineer/Employer cannot agree any amounts in the draft Final Statement, then the Contractor is to prepare a Partially Agreed Final Statement, identifying separately the agreed amounts, the estimated amounts under (c) above and the disagreed amounts.

Thus at the end of the process one has either an agreed final statement, known as 'the Final Statement', or a Partially Agreed Final Statement setting out clearly the agreed amounts, estimated amounts (including any claims or matters referred to a DAAB or heading to arbitration after a Notice of Dissatisfaction has been given) and those amounts that cannot be agreed.

This is somewhat different from the procedure in the 1999 editions of the three Books. In the 1999 editions there is no provision for a Partially Agreed Final Statement, the Contractor and Engineer/Employer instead seeking to agree the draft Final Statement with any disagreed items resulting in an interim payment certificate/interim payment for the agreed parts of the draft Final Statement; those items which are disagreed are taken to be the subject of a dispute, which may be finally resolved by a Dispute Adjudication Board under clause 20.4 or by amicable settlement under clause 20.5 before arbitration commences. If the dispute is thus finally resolved, the Contractor is to prepare and submit to the Employer, with (in the Red and Yellow Books) a copy to the Engineer, a Final Statement. The *FIDIC Guide* to the 1999 editions envisages that the dispute might not be resolved under clauses 20.4 or 20.5, but probably instead by arbitration, in which case the *Guide*'s view is that there may be no need for a Final Statement, the arbitral award in effect performing the same function. The procedure in the 2017 editions is probably clearer and more comprehensive than the 1999 procedure by providing specifically

for the Partially Agreed Final Statement, setting out distinctly the agreed amounts, estimated amounts and disagreed amounts.

### 10.5.4 Discharge

Clause 14.12 in the three 2017 forms provides that, when the Contractor submits either the Final Statement or the Partially Agreed Final Statement, he must also submit a form of discharge, stating that the total of such Statement represents a full and final settlement of all monies due to him under or in connection with the Contract. However, the discharge may state that the total of the Statement is subject to any payment that may become due in respect of any dispute for which a DAAB proceeding or arbitration is in progress under clause 21.[9] Thus the discharge does not prejudice the Contractor's claims for disagreed amounts provided the claims have become the subject of a DAAB or arbitration process under clause 21.[10] This is made explicit in the final paragraph of clause 14.12, which provides that a discharge under the clause '…shall not affect either Party's liability or entitlement in respect of any Dispute for which a DAAB proceeding or arbitration is in progress under Clause 21 [Disputes and Arbitration]'.[11]

The form of discharge may also state that it shall become effective only after the Contractor has received (a) payment of the amount certified in the Final Payment Certificate (Red and Yellow Books) or full payment of the total amount stated in the Final Statement (Silver Book) (see Section 10.5.5 below) and (b) the Performance Security.

Finally, a default provision is inserted to the effect that if the Contractor fails to submit the discharge it is to be deemed submitted and to have become effective when both of conditions (a) and (b) above have been fulfilled.

The form of discharge required under clause 14.12 of the 1999 editions of the three Books is simpler than in the 2017 editions. It provides merely that when submitting the Final Statement the Contractor must submit a written discharge which confirms that the total of that statement represents full and final settlement of all monies due to the Contractor under or in connection with the Contract; and that the discharge may also state that it becomes effective when the Contractor receives the Performance Security and the outstanding balance of the total amount.

### 10.5.5 Issue of Final Payment Certificate/Final Payment

Clause 14.13 in the 2017 Red and Yellow Books is in the same terms and provides for issue of a Final Payment Certificate (FPC); the same basic procedure is followed in the 2017 Silver Book, but instead of an FPC a notice stating the amount due to the Contractor is provided for.

- *2017 Red and Yellow Books*

Clause 14.13 provides that within 28 days after receiving either the (agreed) Final Statement or the Partially Agreed Final Statement the Engineer is to issue either (a) an

9 In some print-runs of the 2017 Books sub-clause 21.6 (relating specifically to arbitration) is referred to in this connection instead of clause 21 generally; this error has been corrected by FIDIC in an Erratum.
10 See Section 16.2 below.
11 It is thus important that at the stage when the Partially Agreed Final Statement is submitted the Contractor should have initiated a DAAB process in respect of any unagreed claims if he is not in effect to surrender them when giving the discharge under clause 14.12.

FPC, stating the amount which he fairly considers to be finally due, after giving credit for any balance due from the Employer to the Contractor or vice versa, or (b) in the case of a Partially Agreed Final Statement, an IPC under clause 14.6; any claims which (consistently with the discharge given under clause 14.12) are subject to a DAAB or arbitration process are then left to proceed to a resolution.

Clause 14.13 also provides for a default position if the Contractor has not submitted a draft Final Statement within the 56 days after issue of the Performance Certificate provided under clause 14.11.1; in that case the Engineer requests the Contractor to do so, but if he fails to do so within 28 days the Engineer issues the FPC for such amount as he considers fairly to be due.

If the Contractor fails to submit a Partially Agreed Final Statement then, to the extent that a draft Final Statement submitted by the Contractor is deemed by the Engineer to be a Partially Agreed Final Statement, the Engineer still proceeds in accordance with clause 14.6 to issue an IPC.

- *2017 Silver Book*

As mentioned above, the same basic procedure applies to the final payment under clause 14.13 of the 2017 Silver Book, but instead of issuing an FPC the Employer issues a notice stating the amount due to the Contractor.

This notice is given within 28 days after the Employer receives the Final Statement or the Partially Agreed Final Statement and the discharge under clause 14.12. The notice is to state:

(a) the amount which the Employer fairly considers to be finally due, including any additions and/or deductions which have become due by an agreement or determination under clause 3.5 or under the Contract or otherwise; and
(b) the balance if any due from the Employer to the Contractor or vice versa, with detailed supporting particulars, after giving credit to the Employer for all amounts he has previously paid and all sums to which the Employer is entitled, and after giving credit to the Contractor for any amounts previously paid by him and/or received by the Employer under the performance security.

The second paragraph of clause 14.13 provides for the Contractor's failure to submit a draft final Statement within the 56 days specified under clause 14.11.1. In that event the Employer is to ask the Contractor to do so; if the Contractor does not submit the draft Statement within 28 days, then, within a further 28 days, the Employer is to give a notice to the Contractor stating the Final Payment, with details.

In similar terms to the Red and Yellow Books, provision is made in the last paragraph of clause 14.13 for an interim payment where the Contractor has submitted a Partially Agreed Final Statement, or where such a Statement is deemed to have been submitted; such a Statement will be deemed submitted to the extent that the Employer is prepared to treat a submitted draft Final Statement as a Partially Agreed Final Statement (identifying agreed, estimated and disagreed amounts). When the Contractor has submitted either a Partially Agreed Final Statement, or such a Statement is deemed submitted, the Employer is to make an interim payment to the Contractor in accordance with the timetable in clause 14.7.

### 10.5.6 Payment

Clause 14.7 in the three 2017 forms expressly states the Employer's obligation to make payments of amounts certified (Red and Yellow Books) or notified pursuant to the relevant payment clauses (Silver Book) within certain time limits.

- *2017 Red and Yellow Books*

Clause 14.7 of the 2017 Red and Yellow Books requires the Employer to pay the Contractor:

(a) the advance payment within 21 days or whatever other period might be stated in the Contract Data after receiving the Advance Payment Certificate;
(b) any amount certified by an IPC issued under (i) clause 14.6, within 56 days (or whatever other period is stated in the Contract Data) after the Engineer receives the statement and supporting documents, or under (ii) clause 14.13, within 28 days (or other period stated in the Contract Data) after the Employer receives the IPC; and
(c) the amount certified in the Final Payment Certificate within 56 days (or other period stated in the Contract Data) after the Employer receives the Certificate.

- *2017 Silver Book*

Clause 14.7 of the 2017 Silver Book is in similar terms to the other two Books but provides for different payment periods. The Employer is to pay the Contractor:

(a) the advance payment within the period stated in clause 14.2.2 (so within 14 days of receipt of the documents specified);
(b) any interim payment due under either (i) clause 14.6, within 56 days or whatever other period may be stated in the Contract Data following receipt of the Statement and supporting documents or (ii) clause 14.13, within 42 days or whatever other period may be stated in the Contract Data following receipt of the Partially Agreed Final Statement (or, if none has been submitted but a draft Final Statement is deemed to be a Partially Agreed Final Statement, 84 days after the Employer receives the draft); and
(c) the Final Payment under clause 14.13 within 56 days, or whatever other period may be stated in the Contract Data after the Employer:
    (i) receives the Final Statement (or if none is forthcoming and the second paragraph of clause 14.13 applies,[12] after 14 days from when the Employer issues his notice stating the Final Payment); and
    (ii) receives (or the Contractor is deemed to have issued) the discharge under clause 14.12.

The final paragraph of clause 14.7 in all three Books provides for payment of amounts due in each currency to be made into the bank account nominated by the Contractor in the payment country, for the relevant currency, specified in the Contract. Clause 14.15 provides for the Contract Price to be paid in the currency or currencies named in the Contract Data, with details given for the making of payments where more than one currency is so named.

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12 See Section 10.5.5 above.

### 10.5.7 Delayed Payment

The three FIDIC forms, in both editions, penalise the Employer for any delay in making payments to the Contractor in accordance with clause 14.7. Clause 14.8 of the 2017 editions provides for the Contractor's entitlement to financing charges, compounded monthly on the amount unpaid during the period of any delay. The parties are free to agree on the basis of calculating these financing charges in the Contract Data, but unless they otherwise state the charges are to be calculated by applying an annual rate of 3% above (a) the average bank short-term lending rate to prime borrowers prevailing for the currency of payment at the place for payment, or (b) if such a rate does not exist at that place, the same rate in the country of the currency of payment, or (c) if such a rate does not exist at either place, the appropriate rate fixed by the law of the country of the currency of payment. Thus the rate applied is 3% above (a), or in default (b), or in further default (c) above. This contrasts with the 1999 editions, where, by clause 14.8, unless otherwise stated in the Particular Conditions a rate of 3% above the discount rate of the central bank of the country of the currency of payment is the only rate provided for.

The second paragraph of clause 14.8 of the 2017 editions provides that the Contractor is to be entitled to payment of the financing charges without prejudice to any other right or remedy and, importantly, without the need for submitting a statement or any form of notice, including specifically any requirement to comply with clause 20.2, relating to claims for payment and/or extensions of time. This is a significant improvement on the 1999 editions, which provides merely that the Contractor is to be entitled to payment of financing charges '… without formal notice'. This leaves it unclear whether the Contractor had still to notify a claim under clause 20.1 within the 28 days required or lose his right to the financing charges, or whether it merely means that the contractual obligation to make payment of the financing charges does not require any particular notice. The new clause 14.8 makes the point clear beyond doubt, by expressly providing that the Contractor need make no claim for accrued financing charges (or give any notice or statement) before becoming entitled to receive them.

## 10.6 Cessation of Employer's Liability

Both editions of the FIDIC forms provide for the Employer's liability to the Contractor to be confined to amounts expressly sought in the Final Statement (or Partially Agreed Final Statement in the 2017 editions) and in the Statement at Completion under clause 14.10, except for matters arising after issue of the Taking-Over Certificate. This is to prevent potential claims for additional payments to continue indefinitely beyond the final accounting which is intended to take place at the end of the project.

Thus the first paragraph of clause 14.14 of the three 2017 Books provides that the Employer is not to be liable to the Contractor for 'any matter or thing under or in connection with the Contract or execution of the Works', except to the extent that the Contractor has included an amount expressly for it in (a) the Final Statement or Partially Agreed Final Statement; and (b) (except for anything arising after issue of the Taking-Over Certificate) the Statement at Completion under clause 14.10.

This wording is similar to the first paragraph of clause 14.14 in the 1999 editions (apart from the reference in the 2017 editions to the Partially Agreed Final Statement); the 2017

editions go on, however, to provide expressly for the period after the Final Payment Certificate (Red and Yellow Books) or Final Payment (Silver Book) and give the Contractor a 56-day period for making a claim in respect of any sums certified or notified. Thus a second paragraph of clause 14.14 provides that, unless the Contractor makes or has made a claim under clause 20.2 in respect of an amount or amounts under the Final Payment Certificate, or included in the Final Payment (Silver Book), within 56 days of receiving a copy of that Certificate, or of receiving the Final Payment, the Contractor is to be deemed to have accepted the amounts so certified, or the Final Payment as correct. The Employer is then to have no further liability to the Contractor, other than to pay the amount due under the Final Payment Certificate (Red and Yellow Books) and return the performance security to the Contractor.

In both editions of the three Books the above cessation or limitation of the Employer's liability is subject to the proviso that clause 14.14 does not apply to limit his liability under his indemnification obligations, or in any case of fraud, gross negligence, deliberate default or reckless misconduct by the Employer.

# 11

# Variations and Adjustments to the Contract Price

Construction contracts typically contain provisions enabling the employer to change or vary the originally agreed works. Without such provisions the employer would be unable to change the works without the specific agreement of the contractor. Variation clauses provide a mechanism for regulating such changes *under* the contract, as opposed to requiring ad hoc amendments *to* the contract whenever changes are required by the employer.

In both editions of the three FIDIC Books this change mechanism is set out in clause 13. While preserving key features of the 1999 editions, the new clause 13 introduces a more detailed and substantially revised procedure for instructing variations as well as providing guidance on how they are to be valued; it also expands the grounds on which the Contractor might object to a variation and makes certain other important changes, to be examined below. As with the 1999 editions, clause 13 in the 2017 editions also deals with adjustments to the Contract Price other than those resulting from variations, such as changes in applicable laws.

## 11.1 Variations

Clause 13.1 in the 1999 edition of the three Books provides that variations may be initiated by the Engineer/Employer at any time prior to issuing the Taking-Over Certificate. This may be either by (a) an instruction or (b) a request to the Contractor to submit a proposal.

Clause 13.1 in the 2017 editions contains the same time limit on the right to vary (any time prior to the Taking-Over Certificate) but refers the user to the new clause 13.3 for details of how a variation may be initiated. The new clause 13.3 then sets out a much more detailed and prescriptive variation procedure, although it does still provide for the same two ways in which a variation may be initiated (instruction or request for a proposal).

### 11.1.1 Meaning of 'Variation'

In the 1999 Yellow and Silver Books 'Variation' is defined to mean '… any change to the Employer's Requirements or the Works, which is instructed or approved as a variation

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

under Clause 13'.[1] In the 1999 Red Book the term is defined in clause 1.1.6.9 as '… any change to the Works, which is instructed or approved as a variation under Clause 13'.

The 2017 editions preserve these different definitions, except that the words '…or approved' are omitted.[2] 'Works' is defined in the 2017 Books as '… the Permanent Works and the Temporary Works, or either of them as appropriate'.[3] 'Permanent Works' is defined as those of a permanent nature which are to be executed by the Contractor and 'Temporary Works' as those, other than Contractor's equipment, required on the site for the execution of the works.[4]

### 11.1.2 The Right to Vary: Omitting Works to Be Carried out by Others

Clause 13.1 in the 1999 editions contains a prohibition on variations comprising the omission of any work which is to be carried out by others.[5] The purpose of this prohibition is to prevent employers in a falling market from omitting works only to have them carried out by alternative contractors at a lower price. The same reasoning prevails in the 2017 editions, but clause 13.1 now provides that, other than as stated under clause 11.4 relating to the Contractor's failure to remedy defects or damage after taking over, a variation is not to comprise the omission of any work which is to be carried out by the Employer or by others unless otherwise agreed by the parties.

Thus a variation may comprise the omission of work which is to be carried out 'by the Employer or by others'[6] if either clause 11.4 applies (that is, the Contractor unduly delays in remedying any defect or damage under clause 11.1) or the parties so agree. In the latter case, the Contractor may seek any loss of profit that might result from the omission and any other loss or damage suffered or to be suffered by him as a result.[7]

Some commentators have suggested that expressly allowing the parties to agree to omit works to be carried out by the Employer or others is otiose, since it was always open to the parties to agree to this and the new clause adds nothing.

While it might have been open to the parties to agree ad hoc amendments to permit what would otherwise be prohibited under the contracts, the new provision is not otiose because it expressly brings within the variations regime any agreed omissions, and sets out how the Contractor is to be compensated in such a situation. The new provision is no more otiose than any other feature of the contracts which allows for changes under the Contract as opposed to relying on ad hoc agreements, if any, as the works progress.

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1 Clause 1.1.6.9 Yellow Book/1.6.6.8 Silver Book.

2 Clause 1.1.88 Yellow Book/1.1.86 Red Book/1.1.78 Silver Book. It should be noted that in some print-runs of the 2017 Yellow and Silver Books the definition of 'Variation' omits reference to the Employer's Requirements, so that a variation is apparently defined to be any change to '… the Works, which is instructed as a variation under Clause 13' (and thus the same as in the Red Book definition). This is a mistake which FIDIC has corrected by issuing an Erratum to clause 1.1.88 of the 2017 Yellow and clause 1.1.78 of the 2017 Silver Books.

3 Clause 1.1.89 Yellow Book/1.1.79 Silver Book/1.1.87 Red Book. This is the same definition as in the 1999 editions of the three Books.

4 The 1999 definitions are similar.

5 See first paragraph of clause 13.1 1999 Yellow and Silver Books/clause 13.1(d) 1999 Red Book.

6 Clause 13.1, second paragraph 2017 Yellow, Silver and Red Books. Note that sub-clause 13.1(iv) Red Book provides that a variation may include the omission of any work unless it is to be '… carried out by others without the agreement of the Parties'. Despite the omission of a specific reference to the Employer, 'others' in this sub-clause is intended to include the Employer and would otherwise be inconsistent with the second paragraph of clause 13.1.

7 See clause 13.3.1(c) 2017 Yellow, Silver and Red Books.

### 11.1.3 Contractor's Objections to a Variation

The three Books in both editions provide for the Contractor to object to a variation on certain specified grounds, differing somewhat between the Yellow and Silver Books on the one hand and the Red Book on the other.

- *The 1999 Books*

In the 1999 Yellow Book the Contractor may object to a variation by promptly giving notice to the Engineer supported by details, on three grounds:

(a) he cannot readily obtain the goods required for the variation; or
(b) it would reduce the safety or suitability of the works; or
(c) it would have an adverse impact on the achievement of the Schedule of Guarantees.[8]

The 1999 Silver Book identifies essentially the same three grounds, except that the third ground refers to any adverse impact on the achievement of the Performance Guarantees (rather than Schedule of Guarantees).[9]

In the 1999 Red Book there is only one ground of objection, namely that the Contractor cannot readily obtain the goods required for the variation (that is, the first of the three grounds applying in the other two Books), reflecting the Red Book Contractor's relatively limited design responsibilities.[10]

- *The 2017 Books*

Clause 13.1 in the 2017 Yellow and Silver Books specifies five grounds of objection. The Contractor is to be bound by each variation instructed under clause 13.3.1 and to execute it with due expedition and without delay unless he promptly gives a notice to the Engineer/Employer stating (with supporting details) that:

(a) the varied work was unforeseeable having regard to the scope and nature of the works described in the Employer's Requirements;
(b) the Contractor cannot readily obtain the goods required for the variation;
(c) it will adversely affect his ability to comply with his health and safety obligations under clause 4.8 and/or protection of the environment obligations under clause 4.18;
(d) it will have an adverse impact on the achievement of the Schedule of Performance Guarantees; or
(e) it may adversely affect the Contractor's obligation to complete the works so that they are fit for their intended purposes under clause 4.1.

In the 2017 Red Book three grounds of objection are now set out in clause 13.1, second paragraph. As with the Yellow and Silver Books, the Contractor is to be bound by each instructed variation under clause 13.3.1 and must execute it with due expedition/without delay unless he promptly gives a notice to the Engineer stating (with supporting details) one of the following grounds of objection:

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8 See clause 13.1 second paragraph and clause 1.1.1.10.
9 See clause 1.1.1.5. This is largely a difference in terminology rather than substance.The Performance Guarantees in the 1999 Silver Book are the equivalent of the Schedule of Guarantees in the 1999 Yellow Book: see clause 9.1. (The 2017 Silver and Yellow Books both refer to a Schedule of Performance Guarantees in stating the corresponding ground of objection: see f.n.15 below.)
10 Clause 13.1, second paragraph.

(a) the varied work was unforeseeable having regard to the scope and nature of the works described in the Specification;
(b) the Contractor cannot readily obtain the goods required for the variation; or
(c) it will adversely affect his ability to comply with his health and safety obligations under clause 4.8 and/or protection of the environment obligations under clause 4.18.

- *Varied work 'unforeseeable'*

The first ground of objection in all three of the 2017 Books is entirely new and is intended to limit, in the general conditions, the extent or scope of variations. In the absence of any specific such limitations in the Particular Conditions, sometimes expressed as a percentage of the Accepted Contract Amount or Contract Price, the Contractor under the 1999 Books may potentially be instructed to execute variations way beyond what he could have been expected to contemplate at the time the Contract was formed. The governing law might impose constraints,[11] but otherwise the open-ended nature of variations could present real difficulties for contractors in terms of resourcing, programming and commitments already entered into for other projects.

In order to offer some protection to contractors in the general conditions, the 2017 Books enable the Contractor to object where the varied work was unforeseeable, having regard to the scope and nature of the works described in the Employer's Requirements (Yellow and Silver Books) or Specification (Red Book). 'Unforeseeable' is defined in the same way in the three 2017 Books, to mean 'not reasonably foreseeable by an experienced contractor by the Base Date' (that is, 28 days before the latest date for submission of the Tender).[12]

- *Contractor cannot readily obtain goods*

The second ground of objection common to the three 2017 Books is that the Contractor cannot readily obtain the goods required for the variation. 'Goods' is widely defined.[13] It need not be impossible for the Contractor to obtain the items necessary for executing the proposed variation, but he must be able to show that there would be significant difficulty or delay in obtaining them and would normally be expected to identify the effect that these factors are likely to have on his ability to progress execution of the variation and on progress of the works overall.

- *Adverse effect on health and safety obligations and/or protection of the environment*

The third ground common to the three 2017 Books is that the variation will adversely affect the Contractor's ability to comply with his obligations under clause 4.8, relating to health and safety, and/or 4.18, concerning protection of the environment. The 1999 Yellow and Silver Books enable the Contractor to object if the variation would reduce the safety or suitability of the works, but in the 2017 Books (including the Red Book)

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11 In common law jurisdictions, for example, a contractor might refuse to carry out additional work outside what was reasonably contemplated by the contract, or require to be paid for such work on a restitutionary basis: see *Thorn v London Corporation* (1876) 1 AC 120 and *Blue Circle Industries Plc v Holland Trading Company (UK) Ltd* (1987) 37 BLR 40 (CA).

12 This marks a departure from the definition of 'Unforeseeable' in the 1999 Yellow and Red Books (there is no such term in the 1999 Silver Book), which anchors foreseeability in the date for submission of the Tender, rather than the Base Date. (See Section 1.2.1 above.)

13 Clause 1.1.44 Yellow Book/1.1.39 Silver Book/1.1.44 Red Book.

the corresponding ground of objection is more precisely worded, to cover any adverse effect on the Contractor's ability to comply with his obligations under clauses 4.8 and/or 4.18.

While clause 4.18 is not itself a wholly new provision, its availability as a ground of objection in the 2017 Books reflects a greater emphasis on environmental protection. Clause 4.8 sets out in more detail than in clause 6.7 of the 1999 contracts the Contractor's health and safety obligations, including the requirement for the Contractor to prepare and submit a health and safety manual specifically prepared for the works, the site and any other places where the Contractor intends to execute the works.

- *Adverse impact on achievement of Schedule of Performance Guarantees or Contractor's fitness-for-purpose obligation*

These two grounds in the 2017 Yellow and Silver Books give the design-build contractor a right to object on the basis that the variation would adversely affect his ability to achieve the Schedule of Performance Guarantees,[14] or to fulfil his fitness-for-purpose obligations (under clause 4.1).

In the 1999 Yellow and Silver Books the corresponding ground of objection is that the variation would have an adverse impact on the achievement of the Schedule of Guarantees or (in the Silver Book) the Performance Guarantees. The additional ground provided by sub-paragraph (e) in the 2017 Books fills a gap in the 1999 Books by enabling the Contractor to object if his fitness-for-purpose obligations under clause 4.1 will be adversely affected by the variation.

### 11.1.4 Engineer/Employer's Response

In the 1999 Books the Engineer/Employer upon receiving the Contractor's notice objecting to a variation is obliged to respond cancelling, confirming or varying the instruction. These three options are preserved in the 2017 Books, which provide in the last paragraph of clause 13.1 that, promptly after receiving the Contractor's notice, the Engineer/Employer is to respond by giving a notice cancelling, confirming or varying the instruction. Any instruction so confirmed or varied is to be taken as an instruction under clause 13.3.1.

Thus the Engineer/Employer may confirm the instruction to vary notwithstanding the Contractor's objection; he has, in other words, the final say. It is important to distinguish, however, between two distinct circumstances in which the Engineer/Employer may confirm an instruction to vary.

(i) First, the Engineer/Employer might not think the Contractor's objection has been made out; for example, that the relevant goods are not readily available. A dispute might therefore arise, to be dealt with under clauses 20 and 21.[15]

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14 The Schedule of Performance Guarantees is defined in both Books to mean any documents so called in the Contract schedules showing the guarantees required by the Employer for performance of the works and/or the plant or any part of the works and stating the applicable performance damages payable in the event of failure to obtain any of the guaranteed performances. Such a schedule may well be incorporated into a Yellow or Silver Book contract, and would have a priority under clause 1.5 of the same level as the Contract schedules generally. Performance damages are in turn defined as the damages to be paid to the Employer for failure to achieve the guaranteed performance of the plant and/or the works or any part of them, as set out in the Schedule of Performance Guarantees.

15 See Sections 15.1 and 16.2 below.

(ii) Secondly, the Engineer/Employer, although he accepts that the Contractor's objection has been made out, might not consider it sufficiently good a ground for not executing the variation; for example, although the goods might not be readily available, they can be obtained, and the Engineer/Employer might be prepared to adjust the Contract Price or grant an extension of time to whatever extent was appropriate under clause 13.3.

There are certain grounds of objection where it is difficult to imagine the Engineer/Employer simply confirming an instruction to vary if he considers the Contractor has made good the objection. If he agrees, for example, that if carried out the variation would adversely affect compliance with the Contractor's fitness-for-purpose obligations under clause 4.1 the Engineer/Employer is likely in practice to vary or cancel the instruction. If he did not do so the governing law might apply to excuse the Contractor from compliance or limit his responsibility for the result, or the confirmed instruction might be treated as varying the intended purpose.

## 11.2 Value Engineering

### 11.2.1 The 1999 Editions

The 1999 Books provide for the Contractor at any time to submit for approval proposals to the Engineer/Employer which, if implemented, will accelerate completion; reduce the cost to the Employer of executing, maintaining or operating the works; improve the efficiency or value to the Employer of the completed works; or otherwise be of benefit to the Employer. The Contractor is to prepare such proposals in writing at his own cost and is to include the details as to the works, impact on programme and other matters required under clause 13.3.

In a fixed price contract such as the Yellow or Silver Book the Contractor may have some incentive to produce value engineering proposals since they may enable him, within the fixed price, to achieve efficiencies of cost, for example, while at the same time benefiting the Employer. The drafters of the 1999 Red Book thought the Contractor under this re-measurement form needed to be incentivised to make value engineering proposals by providing, in clause 13.2(c), for a sharing of benefits arising from design proposals affecting the permanent works on a 50:50 basis.[16] A significant change introduced by the 2017 Books is that, as described below, they all now enable the parties to agree and to incorporate into the Particular Conditions provision for the sharing of benefits arising from an accepted value engineering proposal.

### 11.2.2 The 2017 Books

The 2017 Books provide for value engineering by reference to the same four features as one finds in the 1999 Books. Thus under clause 13.2 the Contractor may, at any time, submit to the Engineer/Employer a written proposal which (in the Contractor's opinion) will, if adopted:

(a) accelerate completion;
(b) reduce the cost to the Employer of executing, maintaining or operating the works;

16 See third paragraph, clause 13.2 1999 Red Book.

(c) improve the efficiency or value to the Employer of the completed works; or
(d) otherwise be of benefit to the Employer.

Like the 1999 Books, the proposal is to be prepared at the Contractor's cost and he is to include the details required by the variation procedure in clause 13.3, specifically 13.3.1 dealing with variations by instruction (see Section 11.4.1 below).

By clause 13.2 (last paragraph) in the three 2017 Books, the Engineer/Employer is to consider the sharing (if any) of the benefit, costs and/or delay of the proposal, if consented to and duly instructed, in accordance with whatever may have been agreed between the parties in the Particular Conditions. All three 2017 Books thus provide for the sharing of any such benefit, costs and/or delay to be as set out (if at all) in the Particular Conditions, and the Red Book no longer contains any special provisions in that respect. This may be thought to be an improvement on the 1999 forms.

Also an improvement is that a timetable is now set out under clause 13.2 for the Engineer/Employer to respond to a value engineering proposal. As soon as practicable after receiving the proposal the Engineer/Employer must respond by giving a notice saying whether he consents or not to the proposal. Moreover, the Contractor is not to delay any work while awaiting a response. If consent is given, then a variation should be instructed and there is provision for the Contractor to submit further details as reasonably required.

In the 2017 Red Book, as in the 1999 edition, specific provision is made for the Contractor to be responsible for the design of any part of the permanent works covered by a proposal consented to by the Engineer, unless otherwise agreed by the parties (clause 13.2, last paragraph).

## 11.3 Variation Procedure

As noted above, the 2017 Books follow the 1999 editions by providing for two ways in which a variation may be initiated: by an instruction, or by a request to the Contractor for a proposal. Clause 13.3 in the three 2017 Books, however, describes these two ways where previously they were merely referred to, and sets out in more detail than in the 1999 editions a variation procedure incorporating a timetable for the various steps, backed by default provisions. The clause is to be read in conjunction with clause 3.5 (Red and Yellow Books) or 3.4 (Silver Book), the third paragraph of which specifically covers variation instructions[17], and clause 3.7/3.5.

Variations by instruction are covered by clause 13.3.1 in the three 2017 Books and variations by a request for a proposal are covered by clause 13.3.2.

### 11.3.1 Variation by Instruction: Clause 13.3.1

Like clause 13.3.2, clause 13.3.1 is subject to clause 13.1, setting out the right to vary, including the Contractor's right to object to a variation instruction.

The Engineer/Employer initiates the variation by giving a notice, describing the required change (and stating any requirements for the recording of costs) in accordance with clause 3.5/3.4.

17 As described in Section 3.2.3 above, in the 2017 Silver Book the Employer is to issue instructions, including those for variations, through the Employer's Representative or an assistant with the appropriate authority delegated under clause 3.2 (see Section 3.2.1 above).

As discussed in Chapter 3 above, clause 3.4/3.5 introduces a new requirement for an instruction constituting a variation to say on its face that it does, if the variation procedure under clause 13.3.1 is to apply.

- *Instruction not stated to be a variation*

If the instruction does not state that it is a variation, but the Contractor considers that it:

(a) constitutes a variation (or involves work that is already part of an existing variation), or
(b) does not comply with applicable laws or will reduce the safety of the works or is technically impossible

then the Contractor must immediately, and before commencing any work related to the instruction, give a notice to the Engineer/Employer, with reasons. If the latter does not respond within seven days after receiving this notice[18], by giving a notice confirming, reversing or varying the instruction, he is to be deemed to have revoked the instruction; otherwise, the Contractor is to comply with and be bound by the terms of the Engineer's or Employer's response.

The purpose of requiring the Contractor immediately to give notice if he thinks an instruction constitutes a variation is to avoid the situation, which quite often arises under the 1999 contracts, of the question whether an instruction amounts to a variation being put off until later. The 2017 forms are informed by the view that the project would be better managed by requiring the Engineer or Employer to state expressly whether an instruction constitutes a variation and to seek at least to some extent to have any question about whether it actually is a variation dealt with as it arises. This can, however, have disadvantages. In particular, whereas under the 1999 forms the Contractor would often continue with the works while giving notice of claim under clause 20.1, the 2017 contracts require the question to be dealt with before the Contractor embarks upon the contentious work. That could result in delays or disruption which might otherwise not arise under the 1999 contracts. However, the seven-day time limit on the Engineer's/Employer's response and the Contractor's obligation to comply with the terms of the response if given in time mitigates the effects of this requirement and may be thought to strike a suitable balance.

- *Instruction stated to be a variation*

If the instruction states that it constitutes a variation, so that clause 13.3.1 applies, then, subject to his right to object under clause 13.1, the Contractor is to proceed with executing the variation and within 28 days of receiving the instruction, or longer if agreed, must provide the details set out at sub-paragraphs (a)–(c).

Sub-paragraph (a) in the three Books requires the Contractor to provide a description of the varied work performed or to be performed, including details of resources and methods adopted or to be adopted; and sub-paragraph (b) requires him to include a programme for its execution and his proposals for any necessary modifications to the programme and to the time for completion.

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18 Note that in the 2017 Silver Book clause 3.4, last paragraph, expressly allows for the parties to agree a period other than 7 days for the response.

Sub-paragraph (c) of clause 13.3.1 differs somewhat between the 2017 Yellow and Silver Books on the one hand and the Red Book on the other.

In the 2017 Yellow and Silver Books, sub-paragraph (c) of clause 13.3.1 requires the Contractor to submit his proposal for an adjustment to the Contract Price, with supporting details. The sub-paragraph deals specifically with the omission of any work forming part or all of a variation and the wording here is similar to sub-paragraphs (a) and (b) of the 1999 Red Book, clause 12.4. It provides that if (a) the Contractor has incurred or will incur cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount (Yellow Book) or the Contract Price stated in the Contract Agreement (Silver Book) and (b) the omission of the work has resulted or will result in this sum not forming part of the Contract Price, then that cost may be included in the Contractor's proposal, where it must be clearly identified. The Contractor is thus able to seek items of cost which, but for the omission, would have formed part of the Contract Price.

Sub-paragraph (c) of clause 13.3.1 of the 2017 Red Book also requires the Contractor to submit his proposal for adjustment, but, instead of incorporating the Yellow and Silver Books' provisions, requires the Contractor to value the variation in accordance with clause 12, including identifying any estimated quantities. As to omissions, clause 12.4 provides for the Contractor's proposal to include items of cost which, but for the omission, would have been covered by the Accepted Contract Amount and formed part of the Contract Price. The Contractor under Red Book sub-paragraph (c) should also include in his proposal details of any cost he incurs or will incur as a result of any necessary modification to the time for completion and the additional payment, if any, to which he considers he is entitled.

In all three 2017 Books the final sentence of sub-paragraph (c) of clause 13.3.1 allows the Contractor to include in his proposal for adjustment any loss of profit and other loss or damage suffered or to be suffered by him as a result of an omission of work which the parties have agreed may be carried out by others.

- *Agreement or determination*

In the three 2017 Books, once the Contractor has submitted the above details required under sub-paragraphs (a), (b) and (c) of clause 13.3.1, and any other details that may be required, the Engineer/Employer's Representative is to proceed to agree or determine under clause 3.7/3.5 any extension of time due and/or adjustments to the Contract Price and the schedule of payments to be made in respect of the variation. For the purpose of the time limits under clause 3.7.3/3.5.3, the date when the Engineer/Employer's Representative receives the Contractor's submitted details under clause 13.3.1 sub-paragraphs (a)–(c) above (including any requested further details) is to be treated as the date of commencement of the time limit for agreement under sub-clause 3.7.3/3.5.3.[19]

The 2017 Books all make explicit, what was implicit in the 1999 Books, that the Contractor is entitled to an extension of time and/or adjustment to the Contract Price pursuant to clauses 3.7/3.5 and 13.3.1 without any requirement to comply with clause 20.2, relating to claims for payment and/or extensions of time.[20]

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19 Clause 13.3.1, fourth paragraph.

20 See final paragraph of clause 13.3.1 Red Book/fourth paragraph 13.3.1 Yellow and Silver Books.

- *Valuing a clause 13.3.1 variation*

Clause 13.3.1 in the 2017 Yellow and Silver Books sets out guidance for valuing a variation by instruction. If no schedule of rates and prices is included in the Contract, the adjustments to the Contract Price and any schedule of payments are to be derived from the cost plus profit of executing the work. If a schedule of rates and prices is included in the Contract clause 13.3.1 sets out rules for making the adjustments.

Provision is also made for interim payments pending agreement or determination of the adjustments. Until agreed or determined, the Engineer/Employer is to assess a provisional rate or price for purposes of interim payment certificates/interim payments.

The last five paragraphs of clause 13.3.1 in the 2017 Red Book do not set out rules for making adjustments to the price or schedule of payments, if any, as they do in the other two Books, but instead clause 13.3.1(ii) requires the Engineer to take into account clause 12, using measured quantities of the varied work, in arriving at the correct adjustment to the Price when agreeing or determining the adjustment under clause 3.7.

### 11.3.2 Variation by Request for Proposal: Clause 13.3.2

The Engineer or Employer may wish to vary the works, for example increase the plant's outputs, but not be in a position simply to instruct a variation to achieve that objective; he may instead, under both editions of the three Books, request the Contractor to provide a proposal which he can consider before instructing the relevant variation.

Clause 13.2 is in substantially similar terms in all three of the 1999 Books and sets out a simple procedure for obtaining and responding to the Contractor's proposal. The proposal should contain details of the work required, a proposal for carrying it out, the impact on the overall programme and the likely adjustment needed to the Contract Price. The Engineer or Employer should respond as soon as practicable after receiving the proposal with approval, disapproval or comments, and the Contractor should not delay any work while awaiting the response. If the Engineer or Employer approves the proposal an instruction to vary will follow.

Clause 13.2 is also in essentially the same terms in all three 2017 Books. It sets out a more detailed procedure than in the 1999 forms, and fills a significant gap. The 1999 contracts make no provision for the Contractor to recover any of his costs in preparing a proposal should the Engineer or Employer decline to proceed; this has been corrected in the 2017 books.

- *Procedure*

Under clause 13.3.2 of the 2017 Books the Engineer/Employer may request a proposal before instructing a variation by giving a notice describing the proposed change to the Contractor, who must then respond as soon as practicable by either:

(a) submitting a proposal, to include the matters described in clause 13.3.1 sub-paragraphs (a) to (c) (see Section 11.4.1 above); or
(b) if the Contractor cannot comply, giving reasons why this is so by reference to the grounds of objection set out in clause 13.3.1 sub-paragraphs (a) to (e) (see Section 11.2.2 above).

If the Contractor submits a proposal the Engineer/Employer must as soon as practicable after receiving it respond by giving a notice stating whether or not he consents. The Contractor is not to delay any work while awaiting this response.

If the Engineer/Employer consents to the proposal he is to instruct the variation and the Contractor is then to submit any further details reasonably required. The Engineer/Employer's Representative must then proceed to agree or determine under clause 3.7/3.5 any extension of time and/or price adjustment in accordance with clause 13.3.1 (third paragraph).

If the Engineer/Employer does not give consent to the proposal but the Contractor has incurred cost in submitting it he may claim payment of this cost.

Thus the process follows the main steps in the 1999 editions, but requires any requests to be by way of a notice and the Contractor's response also to be by way of a notice. Like the 1999 Books, no specific time limit on either the Contractor's response to the request or the Engineer's or Employer's own response is imposed, each being required merely to respond as soon as practicable; this was thought to provide the necessary flexibility in the procedure. The Contractor is not to delay any work while awaiting the Engineer's or Employer's response, as in the 1999 Books.

The 2017 Books cross-refer to clause 13.3.1 for the detail required in the Contractor's proposal, rather than giving the more general description one finds in the first paragraph of clause 13.3 of the 1999 editions, and the 2017 Books also apply the Contractor's right to object to a variation under clause 13.1 to the request for a proposal. This is surely an important improvement on the earlier editions, since the Contractor can now rely on the same grounds as under clause 13.1 if faced with a request for a proposal which he believes would trigger such a ground if it resulted in an instruction: for example, if he considers the proposed change would adversely affect his ability to comply with his health and safety or environmental obligations.

### 11.3.3 New Applications of the Variation Procedure

It should be noted here that the 2017 Books apply the clause 13.3 variation procedure to a number of other contexts.

For example, clause 13.3.1 applies to any measures the 2017 Yellow Book Contractor is required to take in order to rectify an error, fault or defect in the Employer's Requirements under clause 1.9; or which the Yellow or Red Book Contractor is required to take to rectify an error in the items of reference provided by the Employer under clause 4.7.3.

In clause 8.7 of all three 2017 Books the clause 13.3.1 procedure is also to apply where the Engineer or Employer instructs the Contractor to revise his method of working or to accelerate progress to reduce delay caused by matters in respect of which the Contractor would be entitled to an extension of time under clause 8.5; and where the Contractor rectifies loss or damage resulting from any of the matters listed in sub-paragraphs (a)–(f) of clause 17.2, relating to liability for care of the works.[21]

Where any necessary changes are made to the execution of the works arising from changes in laws under clause 13.6 (see next Section) the Engineer/Employer is either to give an instruction under clause 13.3.1 or request a proposal under 13.3.2.

21 See Section 13.3.1 below.

## 11.4 Other Adjustments to the Contract Price

Clauses 13.4 and 13.5 in the 2017 Books deal in similar terms with provisional sums and dayworks. Clauses 13.6 and 13.7 deal with adjustments for changes in laws and cost respectively and are considered below.

### 11.4.1 Adjustments for Changes in Laws

Clause 13.6 deals with adjustments for changes in laws and, as in the 1999 editions, provides for the Contractor to be able to claim an extension of time and/or additional cost incurred as a result of such changes. It should be noted that the 2017 Contractor must claim under clause 20.2 for any such extension or payment (as he has to under the 1999 forms), although, as noted above, the clause 13.3 procedure applies to any changes to the execution of the works necessitated by a change in laws. No claim is needed, therefore, in the latter case, but the Contractor must promptly notify the Engineer/Employer, with supporting details and the Engineer/Employer is either to instruct a variation or request a proposal.

As described more fully below, a significant change from the 1999 forms is that, if the change in laws results in a decrease in costs, the Employer may be able to claim a reduction in the Price. Also to be noted is that, where a change in the execution of the works becomes necessary as a result of a change in laws, the Employer need not wait until the Contractor notifies the change but may give notice of it himself and then instruct a variation or request a proposal.

- *Clause 13.6*

Clause 13.6 is in essentially the same terms in all three 2017 Books and substantially modifies the equivalent provision in clause 13.7 of the 1999 editions.

A relevant change in laws may be a change in the laws of 'the Country', that is, the country in which the site (or most of it) is located where the permanent works are to be executed, including the introduction of new laws and the repeal or modification of existing laws or a change in the judicial or official government interpretation or implementation of these laws. In addition, the change could be a change in any permit, permission, licence or approval obtained by the Employer or Contractor under clause 1.13,[22] or in the requirements for them to be obtained by the Contractor under clause 1.13.

If a relevant change is made and/or officially published after the Base Date and affects the Contractor in performing his obligations under the Contract then he can claim under clause 13.6 an extension of time and/or payment of cost if he suffers a delay or incurs an increase in cost as a result. Importantly, if there is a decrease in cost the Employer may claim a reduction in the Contract Price.

Finally, clause 13.6 provides for the need to make adjustments to the execution of the works as a result of any change in laws, and in that case the Contractor is promptly to give a notice to the Engineer/Employer, or vice versa, with supporting details.[23]

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22 See Section 2.7 above.

23 Note that in some print-runs of the 2017 Yellow and Silver Books clause 13.6, fourth paragraph, might suggest that supporting details are only required if it is the Engineer/Employer who notifies the necessary change to the works; this misleading wording has been corrected by an Erratum issued by FIDIC.

The Engineer/Employer is then to instruct a variation under clause 13.3.1 or request a proposal under clause 13.3.2.

- *Contrast with 1999 editions*

The first important change from the 1999 editions is that, as mentioned above, the 2017 Books provide for a downward as well as upward adjustment to the Contract Price as a result of a change in laws. In either case, a claim has to be made for the increase or decrease.

The second important change is that 'change in Laws' is defined in more detail in the 2017 Books to cover any of the changes set out in clause 13.6 and summarised above. In the 1999 editions clause 13.7 applies to a change in the laws of the Country (that is, the country in which the site (or most of it) is located where the permanent works are to be executed[24]), including the introduction of new laws, the repeal or modification of existing laws or a change in their judicial or official government interpretation. The 2017 Books cover changes in the laws of the Country[25] but also include the new categories of permits, permissions, licences or approvals obtained by the Employer or Contractor under clause 1.13 (sub-paragraph (c)) and the requirements for any permits, permissions, licences and/or approvals to be obtained by the Contractor under that clause (sub-paragraph (d)). In these cases, moreover, the changes are not limited to the Country's laws, that is, to the laws of the jurisdiction in which the project is situated.

The third important change has already been noted above: a separate procedure applies in the 2017 Books depending on whether (a) the Contractor seeks to be compensated for additional time and/or cost as a result of the change/the Employer seeks to benefit from a decrease in cost or (b) a change in the execution of the works is necessitated by a change in the laws.

In the former case, the claims procedure under clause 20 applies (to both Contractor and Employer) whereas in the latter the variation procedure under clause 13.3 applies. No such distinction is drawn in the 1999 editions, the Contractor simply having the right, subject to clause 20.1, to claim an extension of time or payment of additional cost resulting from a change (in the laws of the Country).

As in the 1999 editions, clause 13.6 in the 2017 editions anchors the relevant date for assessing a change in the Base Date: a change has to occur after the Base Date, with the 2017 Books adding the detail that it should be a change 'made and/or officially published after the Base Date', whereas in the 1999 editions the change must merely be 'made' after that date.

### 11.4.2 Adjustments for Changes in Cost

The 1999 Yellow and Red Books include in clause 13.8 a complicated formula for adjusting payments to the Contractor for rises or falls in the cost of labour, goods and other inputs to the works. In the 1999 Silver Book there can be adjustment for such rises or falls but these are to be calculated in accordance with whatever provisions the parties might have agreed in the Particular Conditions.

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24 See the definition of 'Country' in the 1999 editions, clause 1.

25 With sub-paragraph (b) referring to judicial or official government interpretation or implementation of such laws, as in the 1999 Books.

The 2017 Books broadly adopt the Silver Book approach of not setting out any formulae in the general conditions, but instead referring to schedules of cost indexation in the Particular Conditions, if any, in which the parties have agreed their own choice of formula. Clause 13.7 in the three 2017 Books is in essentially the same terms and provides for adjustments according to these schedules and to certain rules, for example, relating to the currency in which the adjustment is to be payable or how the adjustment is to be made if the Contractor fails to complete the works within the time for completion.

# 12

# Termination and Suspension

The FIDIC contracts in both editions set out certain rights of each party to terminate the Contract and provide for payment and other consequences following termination. These contractual rights and consequences are to be distinguished from the right a party might have to terminate the Contract in accordance with the governing law. In common law systems, for example, a breach of contract which is fundamental, goes to the 'root' of the contract or demonstrates an intention not to be bound by it, may give rise to the other party's right to bring the contract to an end as well as claim damages.[1] The innocent party might have this right in addition to any right he has to terminate under some specific provision of the contract.

Clause 15.2 in both editions of the FIDIC contracts sets out a list of Contractor defaults entitling the Employer to terminate the Contract.[2] The Employer may also terminate where he wishes to do so for his own purposes, typically where the project is no longer viable or for some other extraneous reason. This right to terminate 'for convenience' is set out in clause 15.5 in both editions of the Books and is exclusive to the Employer.

In both editions of the FIDIC contracts, clause 15.2 provides that the Employer's right to terminate pursuant to that clause is without prejudice to any other rights he has under the Contract or otherwise. Thus the Employer may terminate on some ground other than one of those set out in clause 15.2 if under the governing law he is permitted to do so; and his right to compensation or other relief in the event of a termination may be wider than that set out in the Contract if the governing law so permits. The same provisions apply to the Contractor by clause 16.2 in both editions.

The Contractor may terminate where a ground specified in clause 16.2 applies, and with one exception,[3] these grounds involve a default of some sort by the Employer. The Contractor might have other rights to terminate under the governing law.

1 *Heyman v Darwins Ltd* [1942] AC 356; *Johnson v Agnew* [1980] AC 367, 373.

2 In addition to these grounds, the Employer under the 1999 forms has the right to terminate under clause 9.4(b) (failure to pass tests on completion) and clause 11.4 (failure to remedy defects); either party has a right to terminate under clause 19.6 (optional termination, payment and release/force majeure) and clause 19.7 (release from performance under the law). These grounds are preserved in the 2017 forms, by clauses 9.4, 11.4, 18.5 and 18.6 respectively.

3 The exception is where there is a prolonged suspension affecting the whole of the works (but not the responsibility of the Contractor) under clause 8.12(b) (16.2 ground (h)). In addition to the grounds set out in clause 16.2, the Contractor under the 1999 forms has the right to terminate under clauses 19.6 (optional termination, payment and release/force majeure) and 19.7 (release from performance under the law). These additional grounds are preserved in the 2017 forms, by clauses 18.5 and 18.6 respectively.

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

As well as giving the Contractor rights to terminate the Contract, the FIDIC Books in both editions give the Contractor a right to suspend the works in certain defined circumstances, set out in clause 16.1.[4] The Contractor might have other rights to suspend the works under the governing law.

## 12.1 Employer Termination: For Contractor Default

The 2017 Books include more grounds on which the Employer might terminate the Contract due to the Contractor's default than the 1999 editions, as well as setting out in more detail and with some modifications the procedures to be followed for terminating and the consequences of the termination. The 1999 editions are considered first.

- The 1999 Books

Clause 15.2 of the 1999 editions is in the same terms in all three Books, except that the 1999 Silver Book lists one fewer ground of termination for Contractor default than the other two Books.

The 1999 Red and Yellow Books entitle the Employer to terminate if the Contractor[5]:

(a) fails to provide the performance security required under clause 4.2 or fails to comply with a notice to correct under clause 15.1;
(b) abandons the works or otherwise plainly demonstrates an intention not to continue performing his obligations under the Contract;
(c) without reasonable excuse (i) fails to proceed with the works in accordance with clause 8 or (ii) fails to comply with a notice under clause 7.5 (rejecting the works) or 7.6 (as to executing remedial work), within 28 days after receiving it;
(d) subcontracts the whole of the works or assigns the Contract without the required agreement;
(e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him or other specified insolvency-related acts or events occur;
(f) gives or offers to give, either directly or indirectly, any of a number of specified inducements or rewards in relation to the Contract, other than lawful inducements and rewards to contractors' personnel.

In the event of any of the above events or circumstances the Employer may terminate the Contract on giving 14 days' notice to the Contractor, except that in the case of sub-paragraphs (e) and (f) above the Employer is entitled to terminate the Contract immediately.

Clause 15.2 of the 1999 Silver Book differs from the other two 1999 Books only in that a failure to comply with a notice under clauses 7.5 or 7.6 after 28 days (sub-paragraph (c)(ii) in the Red and Yellow Books) does not entitle the Employer to terminate. The Contractor still has the obligation under those clauses to make good the defect and ensure compliance with the Contract or to comply with instructions as to remedial works respectively but, perhaps reflecting the lesser degree of control which the contract administrator in general has over the execution of the works under a Silver Book

4 As we have seen in Chapter 7 above, the Engineer/Employer has a right to instruct the suspension of the works under clause 8.9 in both editions.

5 The same sub-paragraph letters are used as in clause 15.2.

contract, the Employer is not entitled to take the step of terminating where there has been a failure to comply after the 28-day period provided for under the Red and Yellow Books.

### 12.1.1 The Grounds of Termination: Clause 15.2, 1999 Editions

- *Sub-paragraph (a): Performance security; notice to correct*

Sub-paragraph (a) of clause 15.2 refers, as well as to the failure to provide the required performance security under clause 4.2, to a failure to comply with a notice to correct under clause 15.1. Clause 15.1 provides in turn that if the Contractor fails to carry out '… any obligation under the Contract…' the Employer may by notice require him to make good the failure and to remedy it within a specified reasonable time. Given that the Employer has the right to terminate on notice if a notice to correct is not complied with by the specified reasonable time, the consequences of failing to carry out 'any obligation' under the Contract are potentially extremely serious for the Contractor. The governing law might qualify the words 'any obligation' by some requirement of materiality before the right to terminate under sub-paragraph (a) arises[6]; but on the face of the sub-paragraph the right to terminate may arise on even a trivial breach or failure by the Contractor. As examined below, this has been changed in the 2017 editions by an express requirement that the right to terminate only arises where there has been a material breach of the Contractor's obligations under the Contract.

In addition to potential uncertainty as to when precisely the right to terminate for failure to comply with a notice to correct arises, there may well be uncertainty about the specified reasonable time. This is a general point that arises in connection with the use of the word 'reasonable' in the 1999 editions, implying a judgment to be exercised by the contract administrator which may be open to dispute. As also examined below, the 2017 editions go some way to mitigating this potential uncertainty by spelling out the circumstances to which the Engineer/Employer is to have regard in specifying the time within which the Contractor is to remedy the failure or breach.

- *Sub-paragraph (b): Abandoning the works or otherwise plainly demonstrating an intention not to continue performance of Contractor's obligations under the Contract*

Sub-paragraph (b) of clause 15.2 gives a general right to terminate where the works have been abandoned or where the Contractor otherwise plainly demonstrates an intention not to continue performing his obligations under the Contract. This ground will therefore apply only in extreme cases. It may be difficult to determine whether the works have been abandoned, which implies an intention not to continue performing them as a whole, or whether the Contractor otherwise 'plainly demonstrates' an intention not to continue performing his obligations under the Contract.[7] Before taking the step of

6 See, for example, the English High Court decision in *Obrascon Huarte Lain SA v Attorney General for Gibraltar* [2014] EWHC 1028 (TCC) ([317]–[325]) in which it was held, in the context of the 1999 Yellow Book, that clause 15.1 relates to significant contractual failures by the Contractor which require to be established as such; immaterial or insignificant failures or any act or omission by the Contractor that has not yet become a failure to comply with the Contract are insufficient.

7 See the *Obrascon* decision, op. cit. at [321] ff for a discussion of the interpretation of this provision, at least according to English law. According to the decision this ground for termination must relate to significant defaults by the Contractor, not minor or immaterial ones.

termination under this sub-paragraph the prudent contract administrator may consider giving a notice to correct under clause 15.1 in respect of the default.

- *Sub-paragraph (c): Failure to proceed in accordance with clause 8; non-compliance with clause 7.5/7.6 notice*

Sub-paragraph (c)(i) of clause 15.2 entitles the Employer to terminate where 'without reasonable excuse' the Contractor fails to proceed with the works in accordance with clause 8. That clause, as discussed in Chapter 7 above, contains an express obligation on the Contractor to proceed with the works with due expedition and without delay. It may be thought that due expedition implies that the Contractor has no reasonable excuse for delay in any event; but the sub-paragraph highlights the importance of the Engineer or Employer's being confident that the Contractor has no reasonable basis for failing to maintain progress before taking the step of terminating the Contract.[8]

Sub-paragraph (c)(ii) of clause 15.2 in the Red and Yellow Books entitles the Employer to terminate on notice where the Contractor without reasonable excuse fails to comply with a notice under clause 7.5 rejecting any plant, materials, design or workmanship which is defective or otherwise not in accordance with the Contract; or fails to comply with an instruction under clause 7.6 for the removal and replacement of any plant or materials which do not comply with the Contract or for the removal and re-execution of any work which fails to comply, and the execution of any work urgently required for the safety of the works. Clauses 7.5 and 7.6 are important tools available to the Engineer to control the quality of the works as they progress and their importance is underlined by the right to terminate if the Contractor fails to comply, but only if the non-compliance is for a fairly extended period of 28 days; it is only after that period that the Engineer can give a notice under sub-paragraph (c)(ii), terminating the contract 14 days later. As noted above, this ground of termination does not apply in the 1999 Silver Book.

- *Sub-paragraph (d): Subcontracting the whole of the works or assigning without agreement*

Sub-paragraph (d) provides for termination if the Contractor subcontracts the whole of the works or assigns the Contract without the required agreement. Although not expressly referred to, this provision relates to clauses 1.7 and 4.4, which prohibit assignment of a whole or any part of the Contract without prior agreement of the Employer and subcontracting the whole of the works respectively.

- *Sub-paragraphs (e) and (f): Corruption and insolvency*

Sub-paragraphs (e) and (f) cover corruption and insolvency respectively and are drawn in wide terms. There may be particular difficulty with sub-paragraph (f), as the distinction between lawful inducements and rewards, which do not entitle termination, and doing or forbearing to do anything which might give any person directly or indirectly any inducement or reward, which do entitle it, may be hard to draw in

8 Again the *Obrascon* decision, op. cit. at [317]–[325] and [357]–[359] provides useful guidance on the interpretation of this provision as a matter of English law. The Contractor's liability to pay liquidated damages is quite separate from the right to terminate under this provision for failure to proceed with due expedition and without delay. As with the other grounds for termination considered in *Obrascon*, the Contractor must have been guilty of significant defaults before termination can be justified and minor failures or delays are not sufficient.

practice. However, Particular Conditions may often be drafted dealing specifically with corruption and bribery, particularly in jurisdictions containing strict rules on these matters.[9]

### 12.1.2 The Termination Procedure Under Clause 15.2, 1999 Editions

As noted above, if any of the events listed in sub-paragraphs (a) to (f) apply then the Employer under the 1999 editions may terminate the Contract upon giving 14 days' notice to the Contractor, except that if sub-paragraphs (e) or (f) apply (corruption or insolvency) the Employer may by notice terminate the Contract immediately.

Upon termination, the Contractor is to leave the site and deliver any required goods, all the Contractor's documents and any other design documents made by or for him to the Engineer/Employer, except that the Contractor is to use his best efforts to comply immediately with any reasonable instructions included in the termination notice for the assignment of any subcontract and for the protection of life or property or safety of the Works. This is an obviously important proviso, designed to minimise disruption to the works following the termination and to safeguard life or property and maintain safety.

The Employer is entitled to complete the works and/or arrange for other entities to do so and in that event the Employer and such entities may use any goods, Contractor's documents and other design documents made by or on behalf of the Contractor. Again this is an entitlement designed to minimise disruption to the works following the termination. After any such use the Employer must notify the Contractor that his equipment and temporary works will be released to him at or near the site, whereupon the Contractor is to arrange promptly for their removal at his own risk and cost. The proviso to this is that if the Contractor has failed to make a payment due to the Employer, for example in respect of the additional cost of completing the works,[10] then the Employer has the right to sell the Contractor's equipment and temporary works to recover such payment, the balance of the proceeds then being due to be paid to the Contractor.

### 12.1.3 Valuation and Payment After a Clause 15.2 Termination

Clause 15.3 in the 1999 editions provides that as soon as practicable after a notice of termination under clause 15.2 has taken effect, the Engineer/Employer is to proceed in accordance with clause 3.5 to agree or determine the value of the works, goods and Contractor's documents and any other sums due to the Contractor for work executed in accordance with the Contract.

Clause 15.4 then provides for the Employer's right to withhold from the Contractor any further payments until the costs of remedying defects, damages for delay in completion and other costs have been established and for the Employer's right to recover any loss or damage he incurs and any extra cost of completing the works to be deducted from the sums due to the Contractor under clause 15.3.

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9 See, for example, the UK Bribery Act 2010, which imposes severe penalties for a wide range of improper financial or other inducements and has a very wide jurisdiction, allowing individuals or companies with links to the UK to be prosecuted irrespective of where the offence occurred.

10 Pursuant to clause 15.4(c).

• The 2017 Books

Unlike the 1999 contracts, clause 15.2 is in the same terms in all three of the 2017 Books. Thus in the 2017 Silver Book the same grounds for terminating for Contractor default are available to the Employer as in the Red and Yellow Books.

Clause 15.2 in the 2017 Books also differs from its 1999 counterpart in breaking up the termination process and procedure post-termination into four distinct sub-clauses. The first sub-clause, 15.2.1, draws a distinction, unknown in the 1999 editions, between a notice of the Employer's intention to terminate the Contract and a notice of termination as such. In each case the notice must state that it is given under clause 15.2.1. The clause then goes on to set out in eight sub-paragraphs, (a) to (h), the circumstances in which the Employer is entitled to give one or other of these two types of notice.

The effect of triggering a notice of intention to terminate is to give the Contractor a 14-day period to put right his non-compliance before a notice to terminate as such is given, under clause 15.2.2 (see Section 12.1.5 below); the Contractor therefore knows where he stands and has an opportunity to correct his default before the drastic step of termination is taken. This is a significant improvement on the 1999 contracts, where it was never entirely clear what was to happen at the end of the 14-day notice period under clause 15.2. Was a second notice required, for example, if the Contractor had failed to put right the non-compliance? In the 2017 contracts a second notice is expressly required under clause 15.2.2 except in the case of sub-paragraphs (f), (g) and (h) (see below).

Clause 15.2.1 of the three 2017 Books entitles the Employer to give a notice of his intention to terminate the Contract or, in the case of sub-paragraphs (f), (g) or (h), a notice of termination, if the Contractor[11]:

(a) fails to comply with (i) a notice to correct under clause 15.1 or (ii) a binding agreement or final and binding determination under clause 3.7 or (iii) a decision of the DAAB under clause 21.4 whether binding or final and binding, and in each case such a failure amounts to a material breach of the Contractor's obligations under the Contract;
(b) abandons the works or otherwise plainly demonstrates an intention not to continue performance of his obligations under the Contract;
(c) without reasonable excuse fails to proceed with the works in accordance with clause 8 or, if the Contract Data provide for a maximum amount of delay damages, the Contractor's failure to complete in time would entitle the Employer to delay damages exceeding that amount;
(d) without reasonable excuse fails to comply with a notice rejecting the works under clause 7.5 or an Engineer's/Employer's instruction under clause 7.6 (as to remedial works), within 28 days after receiving it;
(e) fails to comply with clause 4.2 as to performance securities;
(f) subcontracts the whole or any part of the works in breach of clause 4.4 or assigns the Contract without the required agreement under clause 1.7;
(g) becomes bankrupt or insolvent, or goes into liquidation, or other specified acts or events of insolvency occur; or is subject to a reorganisation; or any act is done or event occurs analogous to or having a similar effect under applicable laws; or, if the Contractor is a joint venture (JV), any of the specified matters apply to a member of the JV and the other members do not promptly confirm to the Employer that (in

11 The same sub-paragraph letters are used as in clause 15.2 of the 2017 editions.

accordance with clause 1.14(a)) that member's obligations under the Contract are to be fulfilled in accordance with the Contract;

(h) is found, based on reasonable evidence, to have engaged in corrupt, fraudulent, collusive or coercive practice at any time in relation to the works or to the Contract.

### 12.1.4 The Grounds of Termination: Clause 15.2.1, 2017 Editions

- *Sub-paragraph (a): Notices to correct, agreements/determinations and DAAB decisions*

Sub-paragraph (a) (i) refers to a failure to comply with a notice to correct and thus relates to clause 15.1. This clause has been substantially revised in the 2017 editions. Whereas the 1999 editions referred merely to the Contractor's failing to carry out any obligation under the Contract as entitling the Engineer/Employer by notice to require the Contractor to make good the failure and remedy it within a specified reasonable time, the 2017 Books in addition require the Engineer/Employer to (a) describe the Contractor's failure, (b) state the sub-clause and/or provisions of the Contract under which the Contractor has the obligation and (c) specify the time within which the Contractor is to remedy the failure, which must be reasonable taking due regard of the nature of the failure and the work and/or other action required to remedy it.

Thus more detail is provided in the 2017 Books as to the content of the notice to correct and as to the reasonableness of the specified time within which the Contractor is obliged to correct the failure. There is, moreover, a new requirement for the Contractor, after receiving a notice to correct, immediately to respond by giving a notice to the Engineer/Employer describing the measures he will take to remedy the failure and stating the date on which he will commence such measures in order to comply with the time specified in the notice to correct. This focuses the Contractor's mind at an early stage and may help ensure he puts right the problem within the time specified.

It is also expressly provided that the time specified in the notice to correct does not imply any extension of the time for completion.

As well as referring to a failure to comply with a notice to correct, clause 15.2.1 sub-paragraph (a) adds two significant grounds of termination to those under the 1999 contracts by providing for a notice of intention to terminate to be given if the Contractor (i) fails to comply with a binding agreement or final and binding determination under clause 3.7/3.5 or (ii) fails to comply with a decision of the DAAB under clause 21.4, whether that decision is binding or final and binding (as it would be if no notice of dissatisfaction were given in time[12]). These provisions strengthen the remedies available to the Employer in the event of the Contractor's failure to comply with clause 3.7/3.5 determinations or DAAB decisions and will be welcomed by many users of the contracts.

Under clause 15.2.1 sub-paragraph (a) of the 2017 contracts the relevant non-compliance has to constitute a material breach of the Contractor's obligations under the Contract before a notice of intention to terminate can properly be given. The 2017 contracts therefore, as mentioned in Section 12.1.1 above, remove the uncertainty that exists with the 1999 forms about whether the Employer can terminate

12 See Section 16.2.6 below.

for the Contractor's failure to comply with, in particular, a notice to correct even where the breach of obligation concerned was not material or significant.

- *Sub-paragraph (b): Abandoning the works or otherwise plainly demonstrating an intention not to continue performance of Contractor's obligations under the contract*

This is in the same terms as the 1999 editions. Again, it is to be noted that the Contractor has a 14-day cure period after the notice of intention to terminate is given.

- *Sub-paragraph (c): Failure to proceed in accordance with clause 8; maximum delay damages amount exceeded*

The Contractor's failure without reasonable excuse to proceed in accordance with clause 8 is also a ground for termination in the 1999 editions and is discussed above. An important additional ground is added, however, in the 2017 Books, namely where the Contractor's delays are such that the Employer would be entitled to delay damages greater than the maximum (if any) specified in the Contract Data. This new provision provides Employers with some protection against periods of uncompensated delay, and reflects amendments which are not unusual in many construction contracts. It is important to note the wording of the provision: '… the Contractor's failure to comply with Sub-Clause 8.2 [Time for Completion] is such that the Employer would be entitled to Delay Damages that exceed this maximum amount'. Thus before the sub-paragraph applies the Contractor must have failed to comply with clause 8.2 such that the Employer would be entitled to delay damages that exceed the maximum amount. The Employer's entitlement to delay damages, if not agreed, is ultimately determined by a DAAB decision or arbitral award, which may reduce the delay damages to below the maximum by the award of an extension of time. Where the Contractor claims an extension of time the Employer may therefore be inclined not to invoke this ground of termination unless he is confident that the Contractor is not entitled to the claimed extension (or until the Contractor's entitlement is determined).

- *Sub-paragraphs (d)–(f): Failure to comply with notice of rejection or Engineer's/Employer's instruction under clause 7.6 within 28 days; failure to comply with clause 4.2 relating to performance securities; subcontracting in breach of clause 4.4 or assignment without required agreement under clause 1.7*

With the exception of sub-paragraph (d), which does not apply in the 1999 Silver Book, these grounds apply under the 1999 contracts and have been discussed above. It is to be noted that the sub-paragraph (f) ground entitles a notice of termination itself to be given under clause 15.2.2 rather than an intention to terminate; the effect of this is that the termination may take place immediately and the date of termination is the date the Contractor receives the notice (clause 15.2.2). This is different from the 1999 forms, since subcontracting or assigning the Contract without the required agreement is not a ground for immediate termination as opposed to termination on 14 days' notice under those forms.

- *Sub-paragraph (g): Events of insolvency or reorganisation*

This ground for termination in the 2017 Books is essentially the same as in the 1999 forms, except that sub-paragraph (g) in the 2017 Books includes a reorganisation as a notice-triggering event, whereas this does not appear in the 1999 forms, and contains

express provision for the situation where the Contractor is a joint venture. In that situation, if any of the matters set out in the sub-paragraph applies to a member of the JV then the other members have to confirm to the Employer that the affected member's obligations under the Contract will be fulfilled, otherwise the sub-paragraph (g) ground will apply. As with sub-paragraph (f), the Employer may give a notice of termination as such as opposed to a notice of intention to terminate.

- *Sub-paragraph (h): Corruption*

This sub-paragraph is shorter than the 1999 equivalent, but it gives guidance on the standard of proof which is absent in the 1999 forms, namely that the Contractor should be found, based on 'reasonable evidence', to have engaged in the specified corrupt activities. Thus it is made explicit that no requirement to prove beyond reasonable doubt or a similar higher burden applies but that merely reasonable evidence is needed before this ground can be relied upon by the Employer. As with grounds (f) and (g), the Employer may give a notice of termination if ground (h) applies as opposed to a notice of intention to terminate.

### 12.1.5 Termination: Clause 15.2.2, 2017 Editions

As described above, termination itself takes place either (a) when the Contractor fails to remedy the matter described in a notice under clause 15.2.1, that is a notice of intention to terminate, within 14 days of receiving the notice and the Employer gives a second notice after that period has expired terminating the Contract or (b) one or other of the sub-paragraphs (f), (g) or (h) grounds applies and the Employer has given a notice of immediate termination. In the first case, (a) above, the date of termination is the date the Contractor receives the second notice and in the second case, (b) above, that date is the date when the Contractor receives the termination notice under clause 15.2.1.

### 12.1.6 Termination Procedure Under Clauses 15.2.3 and 15.2.4, 2017 Editions

The procedure under these clauses is essentially the same as under clause 15.2 in the 1999 editions. Clause 15.2.3 in the 2017 Books, however, provides that after termination the Contractor is immediately to comply with any reasonable instructions included in a notice given by the Employer under the clause for the assignment of subcontracts and protection of life or property or safety of the works; whereas in the 1999 contracts the Contractor's obligation is merely to use best efforts to comply immediately with any reasonable instructions for the assignment of subcontracts and protection of life and property or for the safety of the works.

### 12.1.7 Valuation and Payment After a Clause 15.2 Termination

More detail is provided than in the 1999 Books on the valuation and payment position after a clause 15.2 termination under the 2017 Books.

Clause 15.3 in the 2017 contracts provides guidance about the valuation which is to take place, in particular that (a) it is to include any additions and/or deductions and the balance due, if any, by reference to the matters set out in sub-paragraphs(a) and (b) of clause 14.13, relating to issue of the Final Payment Certificate/Final Payment[13] and (b) is

13 See Section 10.5.5 above.

not to include the value of any Contractor's documents, materials, plant and permanent works to the extent that they do not comply with the Contract.

Clause 15.4 in the 2017 contracts also sets out in more detail the payment position after termination pursuant to clause 15.2. As with the 1999 contracts, the Employer may withhold payment of amounts due to him under clause 15.3 until the costs, loss or damage set out in clause 15.4 have been established. These are in turn largely the same as in the 1999 contracts, except that certain matters such as clearing, cleaning and reinstating the site are included, and specific provision is made for delay damages to be recoverable by the Employer if the works or section have not yet been taken over and the Contract is terminated after the completion date; in that situation delay damages are to be paid for every day that has elapsed between those two dates. This provision fills an important gap which existed in the 1999 contracts, where it was unclear what the Employer's entitlement to delay damages was when the Contract was terminated before taking over but after the date for completion since, under clause 8.7, the entitlement to such damages is defined by reference to the date stated in the Taking-Over Certificate. This definition still applies under clauses 8.8 and 1.1.24 in the 2017 Books, as we saw in Chapter 7 above, but clause 15.4 now fills the delay damages gap for the Employer where the works have not been taken over at the date when the Contract is terminated.

## 12.2 Employer's Termination: For Convenience

Clause 15.5 in both editions of the Books provides for the Employer to terminate the Contract for his own convenience, that is, without any fault on the part of the Contractor. In general the 2017 Books provide the Contractor with more protection than is provided under the 1999 forms where the Employer chooses to terminate for his own purposes.

- The 1999 Books

In all three of the 1999 forms the Employer is entitled to terminate for convenience by giving notice of termination to the Contractor, which is to take effect 28 days after the later of the notice or when the performance security is returned to the Contractor. The only constraint on the Employer's right to terminate for convenience is that he cannot do so in order to execute the works himself or arrange for them to be executed by another contractor.

Upon termination, the Contractor (in accordance with clause 16.3) is to stop work, hand over Contractor's documents, plant, materials and other work for which he has received payment and proceed to remove his equipment from site. He is to be paid in accordance with clause 19.6, relating to optional termination, payment and release where there has been a termination by reason of force majeure in the 1999 forms. One important omission from this payment is that the Contractor recovers no loss of profit on the balance of the work remaining to be executed under the Contract at the date of the Employer's termination or other loss or damage resulting from the termination. This has often been said to be anomalous by contractors, who question why the Contractor should be in the same position in terms of compensation where the Contract is terminated by reason of supervening force majeure events as where the Employer chooses for his own purposes to end the Contract. As we shall now see, the 2017 Books substantially change this position.

• The 2017 Books

Clause 15.5 in the 2017 contracts provides for the Employer's entitlement to terminate for convenience in more detail and gives the Contractor more protections than under the 1999 forms, except that the Employer is no longer prohibited from terminating in order to have the works carried out either by himself or by another contractor. That prohibition has now been removed in the 2017 Books. Instead, however, the Contractor is entitled to loss of profit and other loss or damage suffered as a result of the termination, under clause 15.6. Moreover, under clause 15.5 the Employer is not entitled to execute any part of the works or arrange for any part of them to be executed by other entities unless and until the Contractor receives payment of the amounts due under clause 15.6.

This strengthens the Contractor's hand in ensuring he receives payment where the Employer intends to continue with the works either himself or by another contractor, with the trade-off that the Employer is now permitted to take that path. In many cases, however, the 1999 prohibition on the Employer's undertaking the balance of the works himself or by engaging another contractor was not very effective from the Contractor's point of view, since it was often difficult to determine in practice whether the Employer was terminating with the intention of doing the work himself or having another contractor do it or whether, for example, the financial circumstances in which the Employer found himself meant that he had to stop work for a substantial period before resuming it with another contractor when funds became available. The 2017 Books remove the old prohibition and instead insert greater certainty by permitting the Employer to do what was previously prohibited but at the price of ensuring that the Contractor is paid first.

As indicated above, termination for Employer's convenience is covered not only by clause 15.5 in the 2017 Books but by other clauses, in particular clauses 15.6 and 15.7. These three clauses together set out in a far more structured way the entitlement to terminate for convenience and its consequences.

### 12.2.1 Clause 15.5, 2017 Editions

Under clause 15.5 the Employer must give a notice of termination expressly stated to be given under clause 15.5 and, after having given the notice, is immediately to:

(a) make no further use of the Contractor's documents, which are to be returned to the Contractor except for those for which he has received payment;
(b) where provision for cooperation has been made in the Employer's Requirements or Specification (if Red Book) under clause 4.6, lose the right to the relevant use of the Contractor's equipment, temporary works, access arrangements and other facilities or services; and
(c) make arrangements to return the performance security to the Contractor.

The termination takes effect 28 days after the later of the date when the Contractor receives the termination notice or the Employer returns the performance security; and, as noted above, unless and until the Contractor has received payment of the amount due to him under clause 15.6 the Employer is not to execute any part of the works or arrange for them to be executed by anyone else. Following termination, the Contractor is to proceed in accordance with clause 16.3, including stopping further work, delivering the Contractor's documents, plant materials and other work for which he has received payment and leaving the site.[14]

14 See Section 12.4.6 below.

### 12.2.2 Clauses 15.6 and 15.17, 2017 Editions

Clause 15.6 sets out rules for determining the Contractor's financial entitlements after the termination for convenience. As soon as practicable, the Contractor is to submit detailed supporting particulars of the value of the work done at the date of termination, including the matters described in clauses 18.5[15] and 14.3,[16] as well as the amount of any loss of profit or other loss and damage suffered by the Contractor as a result of the termination. The Engineer or Employer's Representative is then to proceed with a clause 3.7/3.5 agreement or determination and the Engineer is to issue a payment certificate for the amount agreed or determined, or the Employer (if the Silver Book) is to pay the amount so agreed or determined, without in each case any need for the Contractor to submit a statement under clause 14.13.

Clause 15.7 then provides for the Employer to pay the Contractor the amount either certified in the payment certificate under clause 15.6 (if Red or Yellow Book) or simply agreed or determined by the Employer's Representative (if Silver Book) within 112 days after the Contractor has submitted details of the value of work done and loss of profit or other loss and damage under clause 15.6. This improves on the position in the 1999 Books because it gives a definite time for payment of the agreed or determined amounts, whereas under clause 15.5 of the 1999 forms the Employer was merely to pay the Contractor the amounts due under clause 19.6 'after this termination'.

## 12.3 Contractor's Right to Suspend

The Contractor under clause 16.1 in both editions of the FIDIC contracts has express rights to suspend the works by reason of specified events of Employer default. In the 2017 Red and Yellow Books this is permitted in four circumstances, specified in sub-paragraphs (a) to (d), whereas in the 1999 contracts suspension is permitted only where the Employer fails to comply either with the obligation to provide details of his financial arrangements under clause 2.4 or with the timing of payments provisions under clause 14.7. In the 2017 Silver Book three circumstances are specified, due to the fact that no payment certification procedure exists under that contract.

In both editions, the Contractor before exercising his right to suspend must give 21 days' notice to the Employer. In the 2017 Books the notice must state that it is given under clause 16.1. Moreover, in both editions the Contractor, instead of suspending the works outright, may reduce the rate of work until such time as the Employer has remedied the default. One important proviso in the 2017 contracts is that any Employer default must constitute a material breach of his obligations under the Contract. This is missing in the 1999 contracts, although, as with the termination provisions, the governing law might qualify the Contractor's right to suspend by a materiality requirement of some sort.

The four circumstances specified in the 2017 Red and Yellow Books entitling suspension or reduced rate of work by the Contractor are:

(a) where the Engineer fails to certify interim payments in accordance with clause 14.6;
(b) where the Employer fails to provide reasonable evidence of his financial arrangements under clause 2.4;

15 See Section 14.5 below.
16 See Section 10.5.1 above.

(c) where the Employer fails to make payments as required by clause 14.7; or
(d) where the Employer fails to comply either with a binding agreement or a final and binding determination under clause 3.7/3.5 or with a decision of the DAAB under clause 21.4, whether binding or final and binding.

In each case, the right to suspend is qualified by the requirement that the failure should constitute a material breach of the Employer's obligations under the Contract.

With the same proviso, the 2017 Silver Book provides for three circumstances entitling Contractor suspension or reduced rate of work; they are the same as those set out in sub-paragraphs (b) to (d) in the Red and Yellow Books, above, the difference (as indicated above) residing in the fact that there is no payment certification procedure provided for in the Silver Book.

If any of the specified grounds apply, the Contractor has the right on giving 21 days' notice (the notice stating that it is given under clause 16.1) to suspend the work or reduce the rate of progress unless and until the Employer has remedied the specified default. It is expressly provided that this action by the Contractor is not to prejudice his entitlements to financing charges under clause 14.8 and to his right to terminate under clause 16.2 (see next section); and further that if the Employer subsequently remedies the default specified in the notice before a notice of termination under clause 16.2 is given then the Contractor is to resume normal working as soon as reasonably practicable. This provision mirrors the 1999 provision in clause 16.1 of those forms.

As in the 1999 forms, the Contractor, subject to making a claim (under clause 20.2 in the 2017 Books), is entitled to an extension of time and/or payment of cost plus profit if he suffers delay and/or incurs cost as a result of suspending the work or reducing the rate of work in accordance with clause 16.1.

## 12.4 Contractor's Termination

Clause 16.2 in both editions of the FIDIC contracts provides for the Contractor to be entitled to terminate the Contract in certain specified circumstances. As with Employer's termination, the 2017 Books identify more grounds for termination by the Contractor than under the 1999 forms and draw a distinction between a notice of intention to terminate and a notice of termination as such.

• The 1999 Books

There are seven grounds of termination open to the Red or Yellow Book Contractor under clause 16.2 of the 1999 forms, which largely overlap those set out in clause 16.2.1 of the 2017 forms. The 1999 Silver Book has one fewer ground of termination, due to the fact that no payment certification procedure is provided for in the Contract.

Clause 16.2 of the 1999 Red and Yellow Books provides that the Contractor is entitled to terminate the Contract if[17]:

(a) he has not received reasonable evidence of the Employer's financial arrangements as required under clause 2.4 within 42 days after giving a notice suspending or reducing the rate of work under clause 16.1 for failure to comply with that obligation;
(b) the Engineer fails within 56 days after receiving a statement and supporting documents to issue the relevant payment certificate to the Contractor;

17 The same sub-paragraph lettering is used as in clause 16.2 of the 1999 contracts.

(c) the Contractor does not receive the amount due under an interim payment certificate within 42 days after expiry of the time specified in clause 14.7 for payment to be made (except for deductions in respect of Employer's claims under clause 2.5);
(d) the Employer substantially fails to perform his obligations under the Contract;
(e) the Employer fails to comply with his obligation under clause 1.6 to enter into a Contract Agreement or assigns the Contract without agreement in breach of clause 1.7;
(f) there is a prolonged suspension affecting the whole of the works as described in clause 8.11[18];
(g) the Employer becomes bankrupt or insolvent, goes into liquidation, and similar acts or circumstances of insolvency occur or any act is done or event occurs which under applicable laws has a similar effect.

Clause 16.2 of the 1999 Silver Book provides for the same grounds of termination save that ground (b) does not apply since the form includes no procedure for certifying payments. It should also be noted that in the 1999 Silver Book ground (e) makes no reference to a failure to enter into the Contract Agreement pursuant to clause 1.6 as a ground of termination since in the Silver Book form the Contract only comes into existence when the Contract Agreement is executed.[19]

### 12.4.1 The Grounds of Termination: Clause 16.2, 1999 Editions

- *Sub-paragraph (a): Persistent failure to comply with obligation to provide evidence of financial arrangements*

If after 42 days from giving a notice suspending or reducing the rate of work under clause 16.1 for breach of the obligation under clause 2.4 the Contractor still has not received reasonable evidence of the Employer's financial arrangements then he is able to give 14 days' notice terminating the Contract under all three of the 1999 forms. This is therefore 42 days from the suspension notice, not 42 days from the request for evidence of financial arrangements under clause 2.4. It is therefore a remedy available to the Contractor in the case of a persistent or prolonged breach of this important obligation.

- *Sub-paragraph (b): Engineer's failure to issue relevant payment certificate (Red and Yellow Books)*

This is an important protection for the Contractor in the Red and Yellow Books against a prolonged failure by the Engineer to issue the relevant payment certificate. The ground applies if the certificate has still not been issued by 56 days after the Engineer receives the Contractor's statement and supporting documents under clause 14. The failure to issue the certificate will by then have persisted for double the length of time within which it should have been issued: under 14.6, the Engineer has 28 days after receiving the statement and supporting documents to issue an interim payment certificate; and 28 days after receiving the final statement and written discharge to issue the final payment certificate under clause 14.13.

18 See Section 7.9.3 above.
19 Clause 1.6 of the Silver Book in both editions refers to the Contract's 'coming into full force and effect' on the date stated in the Contract Agreement (after any conditions stipulated therein have been satisfied), whereas in the 1999 Red and Yellow Books clause 1.6 provides for a time within which the parties are to enter into the Contract Agreement, namely 28 days after the Contractor receives the Letter of Acceptance. This is extended to 35 days in clause 1.6 of the 2017 Red and Yellow Books.

- *Sub-paragraph (c): Failure to receive payment due*

This ground permits the Contractor to terminate on 14 days' notice where he has not received payment due under an interim payment certificate by 42 days longer than the date he ought to have received such payment pursuant to clause 14.7, subject to deductions arising from any Employer's claims under clause 2.5.

- *Sub-paragraph (d): Substantial failure to perform*

This ground permits termination on 14 days' notice where the Employer substantially fails to perform his obligations under the Contract. The ground is therefore a general one and can cover any failure to perform by the Employer provided the failure is a substantial one. The wording may not be quite as clear as it could be, since it is not entirely clear whether the obligation which is substantially unperformed must itself be a substantial material one, or whether a substantial failure to perform a non-material obligation also warrants the giving of the 14 days' notice. This is clarified in the 2017 Books where the corresponding ground is expressly to apply only where the substantial failure to perform constitutes a material breach of the Employer's obligations under the contract.[20]

- *Sub-paragraph (e): Failure to comply with clause 1.6 (Contract Agreement – Red and Yellow Books) or assigning without necessary agreement*

This sub-paragraph combines two distinct grounds of termination, the first relating to a failure to sign the Contract Agreement within 28 days as required under clause 1.6, and the second to assigning without obtaining the agreement of the Contractor as required under clause 1.7.

As to the first, this seems on the face of it a surprising basis for justifying termination, even if it is on 14 days' notice, since the Contract in the Red and Yellow Books is formed by the Employer's acceptance of the Contractor's Letter of Tender by the Letter of Acceptance, the Contract Agreement being unnecessary to the creation of the Contract. The fact that it is a ground of termination points, however, to the importance attached by the contracts to the execution of the Contract Agreement, which sets out the important if brief details of the agreement including the Contract documents and the principal covenants by both parties.

As to the second ground, this reflects again the importance attached by the contracts to enforcing the prohibition against assignment without agreement. The Contractor cannot be obliged to accept any assignee of the Employer's without his consent, just as the Employer cannot be obliged to accept the Contractor's assignee without agreement.

- *Sub-paragraph (f): Prolonged suspension*

This ground does not refer to an Employer default, unlike the other grounds of termination, but gives the right to terminate where there has been a prolonged suspension of the works under clause 8.11, pursuant to an Engineer's or Employer's instruction, provided this is to the whole of the works and a cause of the instructed suspension is not the responsibility of the Contractor.

- *Sub-paragraph (g): Insolvency and similar events*

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20 See Section 12.4.6 below.

This is a provision common to many commercial contracts, construction or otherwise, and entitles termination in the event of bankruptcy, or insolvency or similar events occurring, or any act or event which according to the applicable laws has a similar effect.

### 12.4.2 Termination Under Clause 16.2, 1999 Editions

If any of the events or circumstances set out in clause 16.2 apply the Contractor has the right, on giving 14 days' notice to the Employer, to terminate the Contract. However, where sub-paragraphs (f) or (g) applies the Contractor may by notice terminate the Contract immediately. As noted above, the Contractor's election to terminate under clause 16.2 does not prejudice any other rights he has under the Contract or otherwise. If, therefore, the governing law permits the Contractor to terminate on grounds other than those set out in clause 16.2 he is able to do so and the scope of any compensation or other relief to which he might be entitled consequent on the termination may be wider than that set out in clause 16.

### 12.4.3 Effects of Termination and Payment

Clauses 16.3 and 16.4 of the 1999 contracts provide respectively for the steps the Contractor is to take following a termination under clause 16.2 and his entitlement to payment.

Following the clause 16.2 termination the Contractor is promptly to cease all further work, except for such work as may have been instructed by the Engineer/Employer for the protection of life or property or safety of the works; he is to hand over the Contractor's documents, plant, materials and other work for which he has been paid; and he is to remove from the site all other goods except those needed for safety and to leave the site.

The Employer under clause 16.4 must upon the notice of termination's taking effect promptly return the performance security to the Contractor; pay the Contractor in accordance with clause 19.6 (relating to optional termination, payment and release); and pay the Contractor the amount of any loss of profit or other loss or damage which he has suffered as a result of the termination.

- The 2017 Books

Under clause 16.2.1 of the 2017 Red and Yellow Books, the Contractor may give a notice (which must state that it is given under that clause) of his intention to terminate the Contract or, if any of sub-paragraphs (g)(ii), (h), (i) or (j) below apply, a notice terminating the Contract, if [21]:

(a) the Contractor still has not received within 42 days reasonable evidence of the Employer's financial arrangements under clause 2.4, despite having given a notice under clause 16.1 suspending the works or reducing the rate of work for breach of that requirement;
(b) the Engineer has not within 56 days after receiving a statement and supporting documents issued the relevant payment certificate;
(c) the Contractor has not received the amount due under any payment certificate within 42 days after expiry of the time when such payment is to be made under clause 14.7;

21 The same sub-paragraph letters are used above as in clause 16.2.1 of the Red and Yellow Books.

(d) the Employer fails to comply with a binding agreement or final and binding determination under clause 3.7 or with a decision of the DAAB under clause 20.4, whether binding or final and binding;
(e) the Employer substantially fails to perform and such failure constitutes a material breach of the Employer's obligations under the Contract;
(f) the Contractor does not receive a notice of the commencement date under clause 8.1 within 84 days of receiving the Letter of Acceptance;
(g) the Employer (i) fails to comply with clause 1.6 (relating to the signing of Contract Agreement) or (ii) assigns the Contract without the required agreement under clause 1.7;
(h) there is a prolonged suspension affecting the whole of the works as described in sub-paragraph (b) of clause 8.12;
(i) the Employer becomes bankrupt or insolvent, or goes into liquidation, or other specified acts or events of insolvency occur; or is subject to a reorganisation; or any act is done or event occurs analogous to or having a similar effect under applicable laws;
(j) the Employer is found, based on reasonable evidence, to have engaged in corrupt, fraudulent, collusive or coercive practice at any time in relation to the works or to the Contract.

The same grounds are set out in the 2017 Silver Book, with the exception of ground (b) since the Silver Book does not provide for any payment certification procedure (and ground (c) similarly refers to payment rather than to any payment certificate).

### 12.4.4 The Grounds of Termination Under Clause 16.2.1, 2017 Editions

- *Sub-paragraph (a): Persistent failure to comply with obligation to provide evidence of financial arrangements*

This is the same ground as is provided for under sub-paragraph (a) of clause 16.2 in the 1999 contracts and has been discussed above.

- *Sub-paragraphs (b) and (c): Engineer's failure to issue relevant payment certificate/non-receipt of payment due*

These two grounds are the same as in the 1999 contracts and are discussed above.

- *Sub-paragraph (d): Failure to comply with binding agreement or determination under clause 3. 7/3.5 and non-compliance with DAAB decision*

This is the mirror image of the clause 15.2.1(a)(ii) and (iii) ground of termination by the Employer for Contractor default and is in keeping with the symmetry of treatment between the parties which the 2017 Books seek to achieve. The aim again is to reinforce the importance of compliance with agreements or determinations, or decisions of the DAAB even if they are not final.

- *Sub-paragraph (e): Substantial failure to perform*

As discussed above in connection with the 1999 Books, this ground is a general one applying where there is a substantial failure to perform by the Employer, but it is made clear in the 2017 Books that such a failure must constitute a material breach of the Employer's obligations under the Contract before it is to justify termination.

- *Sub-paragraph (f): Non-receipt of notice of the commencement date*

This is a new ground in the 2017 Books and reflects the importance of the Contractor's receiving notice of the commencement date under clause 8.1. The right to terminate by reason of non-receipt of the notice only arises 84 days after receiving the Letter of Acceptance and therefore only after twice as long as the Contractor should have had to wait.

- *Sub-paragraph (g): (i) Failure to comply with clause 1.6 (Contract Agreement – Red and Yellow Books) or (ii) Assignment without agreement in breach of clause 1.7*

This ground is in the same terms in all three 2017 Books and contains two distinct grounds for termination, one of which (the second) justifies immediate termination under clause 16.2.2.[22]

The first ground relates to failure to comply with clause 1.6 concerning the Contract Agreement. In the 2017 Red and Yellow Books clause 1.6 requires the parties to sign the Contract Agreement within 35 days after the Contractor receives the Letter of Acceptance, unless they agree otherwise. If the Contractor comprises a JV, the authorised representative of each member of the JV is to sign the Contract Agreement. The 35 days is somewhat longer than the 28 days provided for under clause 1.6 of the 1999 Red and Yellow Books but both editions reflect the importance which continues to be attached to the signing of the Contract Agreement.

In the 2017 Silver Book clause 1.6 provides, as in the 1999 form, for the Contract to come into full force and effect on the date stated in the Contract Agreement. As with the 2017 Red and Yellow Books, clause 1.6 in the 2017 Silver Book also provides for the authorised representative of each member of a JV to sign the Contract Agreement if the Contractor comprises a JV.

- *Sub-paragraph (h): Prolonged suspension*

The Contractor is entitled to terminate immediately where there has been a prolonged suspension affecting the whole of the works, as described in sub-paragraph (b) of clause 8.12. Clause 8.12 in the 2017 Books has been considered in Section 7.9.4 above. The wording of that clause differs somewhat from clause 8.11 referred to in clause 16.2 of the 1999 forms, but the 84-day period of prolongation is the same and the requirements that the whole of the works be affected and that the cause of the suspension instructed by the Engineer/Employer should not be the responsibility of the Contractor still apply.

- *Sub-paragraphs (i) and (j): Insolvency or reorganisation and corruption*

These grounds of termination have been considered above in connection with the Employer's right to terminate for Contractor default under clause 15.2.1 (see Section 12.1.4). It is to be noted that the 2017 contracts have added corruption by the Employer as a ground of immediate termination.

### 12.4.5 Termination Under Clause 16.2, 2017 Editions

Clause 16.2.2 provides that unless the Employer remedies the matter described in a notice given under clause 16.2.1 within 14 days of receiving it, the Contractor may by

22 This is by contrast with the 1999 Books in which only prolonged suspension and insolvency-related events justify immediate termination.

giving a second notice to the Employer immediately terminate the Contract, the date of termination being the date when the Employer receives the second notice. However, if any one or other of sub-paragraphs (g)(ii) (assigning the contract without agreement), (h) (prolonged suspension), (i) (insolvency or reorganisation) or (j) (corruption) applies the Contractor is entitled to terminate the Contract immediately by giving a notice of termination as such, and again the date of termination is the date when the Employer receives the notice.

Clause 16.2.2 then provides expressly for the Contractor to claim, subject to clause 20.2, an extension of time and/or payment of cost plus profit if he suffers delay and/or incurs cost during the above notice period of 14 days. This is a new provision in the 2017 contracts. Like the 1999 contracts, however, clause 16.2.2 also provides that the Contractor's termination under clause 16.2 does not prejudice any other rights he has under the Contract or otherwise. This reflects the position with the Employer's termination under clause 15.2.

### 12.4.6 Contractor's Obligations After Termination

Clause 16.3 in the 2017 Books provides that after termination under clause 16.2 the Contractor is promptly to (a) stop all further work except for what he is instructed to do for the protection of life or property or safety of the works; if he incurs cost as a result of doing such instructed work the Contractor is to be entitled subject to making a claim under clause 20.2 to be paid cost plus profit; (b) deliver to the Engineer/Employer the Contractor's documents, plant, materials and other work for which he has received payment; and (c) remove all other goods from the site, except as needed for safety, and leave the site.

Essentially, therefore, the Contractor's obligations following a clause 16.2 termination are to carry on to do only what he is instructed to do for the limited purposes set out in sub-paragraph (a); to give the Engineer or Employer the Contractor's documents, plant, materials and other work for which he has been paid; and then to leave the site having removed any other goods except those needed for safety.

### 12.4.7 Payment After Contractor's Termination

After a clause 16.2 termination by the Contractor the Employer is promptly to (a) pay the Contractor in accordance of clause 18.5,[23] relating to optional termination; and, provided the Contractor has claimed in accordance with clause 20.2, pay the Contractor the amount of any loss of profit or other loss and damage suffered by him as a result of the termination.

23 See Section 14.5 below.

# 13

# Care of the Works, Indemnities and Insurance

Clause 17 of the 1999 editions allocates the risk of loss or damage to the works between Contractor and Employer and contains a number of indemnities applying to each. The basic approach is to make the Contractor bear the risk of loss or damage to the works, goods and Contractor's documents until issue (or deemed issue) of the Taking-Over Certificate (TOC) with certain exceptions; the Employer generally bears such risk after that point. This approach is carried through to clause 17 of the 2017 editions, which however is substantially restructured and contains a number of important differences from clause 17 in the first editions. The Contractor's risks are linked to his insurance responsibilities under clause 19 of the contracts in both editions.

Clause 17.1 in the 2017 editions sets out the Contractor's responsibility for care of the works, goods and Contractor's documents and in clause 17.2 his liability for any loss or damage to them; clauses 17.4 and 17.5 then deal respectively with indemnities given by the Contractor and the Employer, with clause 17.6 introducing the new concept of a proportionate reduction in a party's liability under an indemnity where the other party contributed to the relevant damage, loss or injury. Clause 17.3 deals with intellectual and industrial property rights, which were previously dealt with in clause 17.5 in the 1999 editions. The 1999 editions also contain, at clause 17.6, limitation of liability provisions which in the 2017 editions are dealt with in clause 1.15.

## 13.1 Care of the Works

### 13.1.1 Clause 17.1: Responsibility for Care of the Works

Clause 17.1 is in largely the same terms in the three 2017 Books.

The first paragraph provides that, unless the Contract is terminated, whether in accordance with the general conditions or otherwise, then, subject to clause 17.2 (see next Section), the Contractor is to take full responsibility for the care of the works, goods and Contractor's documents from the commencement date '…until the issue of the Taking-Over Certificate, when responsibility for the care of the Works shall pass to the Employer'.[1] In the Red and Yellow Books clause 17.1, first paragraph, then provides, in the last sentence, that 'If a Taking-Over Certificate is issued (or is deemed to be issued)

1 It should be noted here that in some print-runs of the 2017 editions this part of clause 17.1 (the fifth line) refers to 'the Date of Completion of the Works' as the date up to which the Contractor is to take full responsibility for the care of the works, goods or Contractor's documents. This would have represented a

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

for any Section or Part, responsibility for the care of that Section or Part shall then pass to the Employer'. This is the same in the Silver Book, except that there is no provision in the wording for taking over a part of the works other than a section.[2]

Two points should be noted here.

(i) First, the Contractor's responsibility is made expressly subject in the 2017 editions to termination, whether in accordance with the Contract conditions or otherwise, whereas this was not the case in the 1999 editions. The second paragraph of clause 17.1 in the 2017 editions goes on to provide that if the Contract is thus terminated the Contractor is to cease to be responsible for the care of the works from the date of termination.

(ii) Secondly, the Contractor's responsibility for care of the works up to taking over is subject to clause 17.2, dealing with liability for care of the works, specifically for loss or damage to them, and providing for a number of exceptions to the Contractor's liability, listed in sub-paragraphs (a) to (f); these are examined below. This mirrors clause 17.2 in the 1999 editions, where the Contractor's responsibility up until taking over is subject to a list of exceptions in clause 17.3, headed 'Employer's Risks'. As we shall see shortly, the list of exceptions is wider in the 2017 editions.

The third paragraph of clause 17.1 provides for the Contractor to remain responsible for the care of any work which is outstanding at the date of completion, until the outstanding work has been completed. This reflects the position under clause 17.2 of the 1999 contracts.

The last paragraph of clause 17.1, which also reflects the position under clause 17.2 of the 1999 editions, provides that any loss or damage occurring to the works, goods or Contractor's documents during the period when the Contractor is responsible for their care from any cause whatever, except as stated in clause 17.2, is to be rectified by the Contractor at his risk and cost so that they comply with the Contract.

### 13.1.2 Clause 17.2: Liability for Care of the Works

The first paragraph of clause 17.2 is in the same terms in the three 2017 Books. It provides for the Contractor's liability for any loss or damage he causes to the works, goods

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departure from clause 17.2 in the 1999 editions, which refers to issue or deemed issue of the TOC, and was not intended. FIDIC has subsequently corrected this mistake and issued Errata to the 2017 Books substituting 'issue of the Taking-Over Certificate' for 'Date of Completion of the Works'. This difference is not merely verbal, since the Date of Completion of the Works is the date stated in the TOC as the date on which the works were completed (see e.g. clause 1.1.24, 2017 Yellow Book); thus the relevant date of transfer of responsibility is not the date on which the works were themselves completed, as stated in the TOC, but the date of issue of the TOC.

Further, it appears likely that a *deemed* issue of the TOC, as well as actual issue, will be sufficient to transfer responsibility, although such deemed issue is not mentioned either in the first sentence of that clause or in the Erratum referred to above. However, it does appear likely that a deemed issue was also intended since this would make the first sentence of clause 17.1 consistent with the second sentence, in which an issue or deemed issue of a TOC for a section or part of the works is sufficient to transfer the relevant responsibility (see below), and would make the second editions consistent with the wording of clause 17.2, first paragraph, in the first editions.

2 This is consistent with the different approach taken in the Silver Book to the taking over of such parts: see Section 8.2.6 above. Note that in some print-runs of the 2017 Silver Book clause 17.1, first paragraph, has the same wording as the other two forms; this was not intended and has been corrected by an Erratum issued by FIDIC.

or Contractor's documents after issue of a TOC and his liability for any loss or damage occurring after issue of the TOC arising from an event occurring before its issue for which he was liable. Although, therefore, responsibility for the care of the works, goods and Contractor's documents passes to the Employer after the issue of the TOC, if the Contractor causes loss or damage to them after that point he is liable. This is the position under the last paragraph of clause 17.2 in the 1999 editions. Like the 1999 editions, clause 17.2 in the 2017 editions also provides, as described above, for the Contractor's liability for any loss or damage occurring after issue of a TOC arising from an event occurring beforehand for which he was liable.

The Contractor's general responsibility, under clause 17.1 of the 2017 editions, for the care of the works prior to issue of the TOC is, as noted above, subject to clause 17.2. In particular, the second paragraph of that clause provides that the Contractor is to have no liability whatsoever for loss or damage to the works, goods or Contractor's documents caused by any of a list of events, except to the extent that they have been rejected by the Engineer/Employer under clause 7.5 (dealing with defects and rejection) before the occurrence of any of those events. The events are described in substantially the same terms in the 2017 Red and Yellow Books and in nearly the same terms in the 2017 Silver Book, the difference being in relation to design errors under sub-paragraph (c).

### 13.1.3 The Clause 17.2 Events

The list of events constituting exceptions to the Contractor's general responsibility for the care of the works, goods and Contractor's documents until issue of the TOC are set out in clause 17.2 sub-paragraphs (a)–(f) of the three 2017 Books. These exceptions are exceptions to the Contractor's responsibility for care of the works, goods and Contractor's documents under clause 17.1[3] and to his liability for loss or damage to them under clause 17.2.

The clause 17.2 exceptions are as follows.

(a) A temporary or permanent interference with any right of way, light, air, water or other easement (other than that resulting from the Contractor's method of construction) which is the unavoidable result of executing the works in accordance with the Contract.

This exception is common to the 2017 Red, Yellow and Silver Books and is an addition to the list of exceptions in clauses 17.2 and 17.3 of the 1999 editions of the three Books. The interference cannot have resulted from the Contractor's method of construction if it is to qualify as an exception, the Contractor therefore continuing to bear the risk where his own method of construction resulted in the relevant interference.

(b) The Employer's use or occupation of any part of the permanent works, except as specified in the Contract.

Where the Employer, unless otherwise specified in the Contract, uses or occupies any part of the permanent works he and not the Contractor is responsible for loss or damage to the works, goods or Contractor's documents caused by his use or occupation.

This is an exception under sub-paragraph (b) of all three of the 2017 Books; and is one of the 'Employer's Risks' under clause 17.3 of the 1999 Red and Yellow Books, but not the 1999 Silver Book, which makes no provision for the Employer to use or occupy any

3 As noted above, the first sentence of clause 17.1 provides that the Contractor's responsibility for the care of the works, goods and Contractor's documents until issue of the TOC is expressly subject to clause 17.2.

part of the permanent works before taking over unless the Contract otherwise provides or the parties agree (clause 10.2).

(c) A fault, error, defect or omission in the design of the works by the Employer, other than design carried out by the Contractor in accordance with his obligations under the Contract; in the Red and Yellow Books certain other design faults, described below, are included in sub-paragraph (c), again subject to the proviso that they are not faults in design work carried out by the Contractor when performing his obligations under the Contract.

In the 2017 Yellow Book sub-paragraph (c) includes within the exception design faults contained in the Employer's Requirements which an experienced contractor exercising due care would not have discovered when examining them and the site before submitting his tender. This exception is consistent with the right of the 2017 Yellow Book Contractor under clause 1.9 to claim an extension of time and/or cost plus profit for delay and/or additional cost incurred as a result of errors, faults or defects in the Employer's Requirements which were not reasonably discoverable before submitting the tender.

The 2017 Red Book contains a similar exception in clause 17.2(c) with respect to Employer's designs or any design element contained in the Specification and Drawings which an experienced contractor exercising due care would not have discovered when examining them and the site before submitting his tender.

In the 2017 Silver Book, although errors in the Employer's Requirements which an experienced contractor exercising due care would not have discovered prior to tender are still not exceptions to the Contractor's liability under clauses 17.1 and 17.2, sub-paragraph (c) of clause 17.2 does except faults, errors, defects or omissions in designs by the Employer, again subject to the proviso that they should not have been designs carried out by the Contractor in accordance with his own obligations under the Contract. This marks a significant shift in risk favourable to the Contractor.

It is to be noted that the 1999 Yellow and Red Books contain, as one of the Employer's Risks, design of any part of the works by the Employer's personnel or others for whom the Employer is responsible; consistently with clause 5.1 of the 1999 Silver Book, that form contains no such Employer's Risk.

(d) Any operation of the forces of nature (other than those allocated to the Contractor in the Contract Data) which is either unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventative precautions.

This exception is common to all three of the 2017 Books. In order to qualify the operative force of nature has to be either unforeseeable or one against which it would not be reasonable to expect an experienced contractor to have taken adequate preventative precautions. So, for example, hurricanes in the southern United States in August are not unforeseeable but it may not be reasonable to expect an experienced contractor to have taken adequate preventative precautions against their effects; for example, in damaging the works.

Clause 17.3(h) of the 1999 Yellow and Red Books contains a similar exception, as one of the Employer's Risks, but the 1999 Silver Book does not; that it should nevertheless be an exception under clause 17.2(d) of the 2017 Silver Book again marks a significant shift of risk in favour of the Contractor.

(e) Any of the events or circumstances listed under sub-paragraphs (a) to (f) of clause 18.1, dealing with Exceptional Events.

This exception to the Contractor's liability is common to all three 2017 Books. The clause 18.1 list covers the examples of force majeure given in clause 19.1 of the 1999 forms but includes, as a separate example (in sub-paragraph (d)), strikes or lockouts not solely involving the Contractor's personnel and other employees of the Contractor and subcontractors.[4]

The six Exceptional Events referred to in clause 17.2 of the 2017 Books are:

(a) war, hostilities (whether or not war is declared), invasion, act of foreign enemies;
(b) rebellion, terrorism, revolution, insurrection, military or usurped power or civil war;
(c) riot, commotion or disorder by persons other than the Contractor's personnel and other employees of the Contractor and subcontractors;
(d) strikes or lockouts not solely involving the Contractor's personnel and other employees of the Contractor and subcontractors;
(e) encountering munitions of war, explosive materials, ionising radiation or contamination by radioactivity, except as attributable to the Contractor's use; or
(f) natural catastrophes such as earthquakes, tsunamis, volcanic activity, hurricanes or typhoons.

Clause 17.3 of the 1999 editions lists as Employer's Risks (a) to (c) and (e) above but not (f) (or (d)); (f) is however, as noted above, a force majeure event under clause 19.1 of the 1999 forms. There is thus a discrepancy between the risks listed as Employer's Risks in clause 17.3 of the 1999 forms and the examples of force majeure given in clause 19.1 of those forms. In the 2017 forms this discrepancy has been removed, since all the events listed as examples of Exceptional Events in clause 18.1 are exceptions to the Contractor's liability under clause 17.2.

(f) Any act or default of Employer's Personnel or Employer's other contractors.

This exception is common to all three 2017 Books. It is a sweeping-up provision which corrects an apparent omission in the 1999 forms. As it was not listed as an Employer's Risk under clause 17.3 in those forms it was unclear whether the Contractor was liable for loss or damage under clause 17.2 even if it resulted from the Employer's default or that of someone for whom he was responsible.

### 13.1.4 Consequences of a Clause 17.2 Event

These are the same in the three 2017 Books and are set out in the third paragraph of clause 17.2. Subject to clause 18.4, dealing with the consequences of an Exceptional Event, if any of the events in sub-paragraphs (a)–(f) of clause 17.2 occurs and results in damage to the works, goods or Contractor's documents the Contractor is promptly to give a notice to the Engineer/Employer and is to rectify any such loss or damage to the extent instructed by the Engineer/Employer, any such instruction being deemed to have been given under clause 13.3.1 and thus to be a variation.

There are two points to note here.

(i) As just noted, the third paragraph of clause 17.2 is subject to clause 18.4, which in turn provides for the Contractor to be entitled to claim an extension of time and/or

4 In the 1999 forms, strikes or lockouts are an example of force majeure if they are by persons other than the Contractor's personnel and other employees of the Contractor and subcontractors, as opposed to not solely involving those persons.

in certain cases cost if he has suffered delay or incurred cost as a result of an Exceptional Event of which he has given notice. Thus, if an Exceptional Event occurs which results in loss or damage to the works the Contractor, in addition to having any instructed work he does to make good the loss or damage treated as a variation, may claim whatever extension of time or cost may be available to him by reason of the Exceptional Event under clause 18.4.[5]

(ii) In the 1999 Books the consequence of an Employer's Risk under clause 17.3 materialising and resulting in damage to the works is that the Contractor should notify the Engineer/Employer and rectify the damage as instructed, but rather than treating the instruction as a variation to be dealt with under the clause 13.1 procedure, the 1999 forms require the Contractor to claim for an extension of time and/or cost incurred in complying with the instruction. In the 2017 Books the Contractor goes automatically into the clause 13.3.1 procedure, with any extension of time or price adjustment due being determined under clause 3.7/3.5.

### 13.1.5 Combined Causes

An important difference between the 2017 Books and the 1999 forms is that the former contain, in the last paragraph of clause 17.2, provision for the Contractor to claim where the loss or damage results from a combination of (a) a cause for which he is liable and (b) one of the events in clause 17.2 sub-paragraphs (a)–(f).

The Contractor may claim a proportion of an extension of time and/or cost plus profit to the extent that any of the 17.2 events have contributed to the delay and/or cost he has incurred in consequence of the loss or damage to the works, goods and Contractor's documents. This may be thought to be an improvement on the 1999 forms, which contain no provision for such an apportionment. It is carried through in clause 17.6 in the 2017 Books, which provides for shared indemnities.[6]

## 13.2 Indemnities

The provisions concerning indemnities in the 2017 Books are set out in clauses 17.4 (indemnities by the Contractor), 17.5 (indemnities by the Employer) and 17.6 (shared indemnities). These provisions are substantially the same in the 2017 Yellow and Silver Books; and also in the Red Book except for the indemnities by the Contractor under clause 17.4, which allow for the potential absence of any design responsibility by the Red Book Contractor. The indemnities allocate the risk of the relevant damage or injury by providing for each party to indemnify the other against their consequences including any claims by third parties.

### 13.2.1 Indemnities by Contractor: 2017 Yellow and Silver Books

In the 2017 Yellow and Silver Books there are three categories of indemnity given by the Contractor in clause 17.4: indemnities with respect to death or personal injury; damage to property other than the works; and indemnities with respect to the Contractor's design obligations.

5 See Section 14.4 below.

6 See Section 13.2.4 below.

- *Death or personal injury and damage to other property*

The first paragraph of clause 17.4 in the 2017 Yellow and Silver Books (and, as mentioned in Section 13.2.2 below, the 2017 Red Book) provides for the Contractor to indemnify the Employer and his personnel/their respective agents against all third party claims, damages, losses and expenses (including legal costs) in respect of death or personal injury and damage to property other than the works themselves. The indemnity applies, in summary, to:

(a) personal injury or death arising from or in the course of the Contractor's execution of the works, unless due to any negligence, deliberate act or breach of the Contract by the Employer or his personnel/their respective agents; and
(b) damage to property other than the works, to the extent that it arises from or in the course of the Contractor's execution of the works and is due to any negligence, deliberate act or breach of the Contract by the Contractor or his personnel/their respective agents, or anyone directly or indirectly employed by any of them.

The wording here largely follows that of paragraph 1 of clause 17.1 in the 1999 editions of the three Books. So if, for example, the Contractor in executing the works discharges poisonous effluent into a river used by local people living downstream for their drinking water and this results in claims for personal injury being made against the Employer as owner of the site, the Employer may seek under clause 17.4 to be fully compensated by the Contractor in respect of any liability he might be found to have to the third party claimants, including his legal and other costs incurred, unless the discharging of the effluent was attributable to his own default or those for whom he is responsible. The extent of his recovery will depend on how the indemnity is interpreted and applied according to the governing law.

- *Contractor's design: fitness for purpose*

The second paragraph of clause 17.4 in the 2017 Yellow and Silver Books provides for an indemnity in respect of the fitness for purpose of the completed works.

The Contractor is to indemnify the Employer against all acts, errors or omissions by the Contractor in carrying out the Contractor's design obligations which result in the works (or section or (if the Yellow (or Red) Book) part[7], or major item of plant, if any) when completed not being fit for the purpose(s) for which they are intended under clause 4.1.

This is a new provision, not found in the 1999 editions. When the pre-release edition of the Yellow Book was circulated in 2016, a similar provision attracted considerable adverse comment. That provision closely followed the corresponding provision in clause 17.9 of the 2008 Gold Book, which provided that the Contractor was to indemnify the Employer against '… all errors in the Contractor's design of the Works and other professional services which result in the Works not being fit for purpose or result in any loss and/or damage to the Employer'. Many felt that this wording was too wide by including 'other professional services', but the main criticism was that the pre-release edition excluded the indemnity from both the overall limitation of liability and the exclusion of

7 Note that in some print-runs of the 2017 Silver Book the second paragraph of clause 17.4 also refers to a part of the works other than a section. This was not intended (see Sections 8.2.6 and 13.1.1 above) and has been corrected by an Erratum issued by FIDIC.

indirect or consequential loss in clause 17.6. This exposed the Contractor to an unacceptable and uninsurable level of risk. In the two 2017 Books as published the wording has been revised to (a) confine the indemnity to the Contractor's design obligations which result in the works being unfit for their clause 4.1 purpose (clause 17.4 second paragraph) and (b) remove the exclusion of the indemnity from the overall limitation of liability and the indirect or consequential loss exclusion under clause 1.15 (or 1.14 in the 2017 Silver Book).[8]

### 13.2.2 Indemnities by Contractor: 2017 Red Book

The first paragraph of clause 17.4 of the 2017 Red Book provides for Contractor indemnities in respect of death or personal injury and damage to property other than the works themselves in the same terms as the other two 2017 Books. In the second paragraph the 2017 Red Book Contractor also gives a fitness-for-purpose indemnity, in similar terms to the 2017 Yellow Book but only to the extent, if any, that the Contractor is responsible for the design of part of the permanent works under clause 4.1 and/or any other design under the Contract (clause 17.4). This indemnity is also within the overall liability cap and exclusion of indirect or consequential loss under clause 1.15.

### 13.2.3 Indemnities by Employer

Clause 17.5 is in the same terms in the three 2017 Books and contains indemnities by the Employer.

The Employer is to indemnify the Contractor and his personnel/their respective agents against all third party claims, damages, losses and expenses (including legal costs) in respect of death or personal injury and damage to property other than the works themselves. The indemnity applies, in summary, to:

(a) personal injury or death or damage to any property other than the works which is due to any negligence, deliberate act or breach of the Contract by the Employer or his personnel/their respective agents; and
(b) damage to property other than the works to the extent that it arises out of any event described in sub-paragraphs (a) to (f) of clause 17.2.

The indemnity in sub-paragraph (a) thus covers death or personal injury and damage to property other than the works attributable to Employer-side defaults, while that in sub-paragraph (b) covers damage to other property arising out of any of the clause 17.2 (a)–(f) events[9]; the Employer therefore indemnifies the Contractor in respect of such loss or damage where the exceptions to the Contractor's responsibility for care of the works/liability for loss or damage to them applies under clause 17.2.

In the 1999 Books the Employer's indemnities are somewhat different. They are set out in two sub-paragraphs in the last paragraph of clause 17.1. Sub-paragraph (1) covers only death or personal injury attributable to Employer-side default, rather than also covering damage to other property as in sub-paragraph (a) above; and sub-paragraph (2) covers certain matters for which liability may be excluded from insurance cover under

8 See Section 2.8.2 above.
9 See Section 13.1.3 above.

the insurance provisions of the Contract in clause 18.3(d)(i)–(iii); these matters are the Employer's right to occupy or have the permanent works executed on any land; damage which is the unavoidable result of the Contractor's obligations to execute the works and remedy defects; and an Employer's Risk under clause 17.3, except to the extent that cover is available for such a risk on commercially reasonable terms.

The 2017 Books have not followed the 1999 approach of defining the Employer's indemnities by reference to matters which may be excluded from insurance cover, but have instead directly, and more simply, divided the relevant risks into death or injury and damage to other property on the one hand, and damage to other property for which the Contractor will not be liable under clause 17.2 on the other.

### 13.2.4 Shared Indemnities

As mentioned above, the 2017 Books introduce the possibility of a proportionate reduction in the extent of a party's liability to indemnify the other if the cause of the relevant damage has been contributed to by a matter for which the other party is responsible or liable. Thus clause 17.6 in all three 2017 Books provides, first, that the Contractor's liability to indemnify the Employer is to be reduced proportionately to the extent that any event described in sub-paragraphs (a)–(f) of clause 17.2 may have contributed to the relevant damage, loss or injury; and secondly that the Employer's liability to indemnify the Contractor is to be reduced proportionately to the extent that any event for which the Contractor is responsible under clause 17.1 may have contributed to the relevant damage, loss or injury.

## 13.3 Intellectual and Industrial Property Rights

Clause 17.3 in the three 2017 Books deals in the same terms with infringements of intellectual and industrial property rights and indemnities relating to them. The wording largely follows that of clause 17.5 of the 1999 editions.

'Infringement' is defined to mean any infringement or alleged infringement of intellectual or industrial property rights, such as patents and registered designs, relating to the works; and a 'claim' is defined to mean a third party claim or proceeding alleging an infringement.

A time limit is inserted in the second paragraph of clause 17.3 to the effect that, whenever a party receives a claim but fails to give notice of it to the other party within 28 days, the first party is to be deemed to have waived any right to an indemnity under clause 17.3.

There then follow a set of indemnities by the Employer and Contractor respectively. The Employer undertakes to indemnify the Contractor against any claim alleging an infringement which is or was (a) an unavoidable result of the Contractor's compliance with the Employer's Requirements and/or any variation, or (b) a result of any works being used by the Employer for a purpose other than that indicated by (or to be reasonably inferred from) the Contract, or in conjunction with anything not supplied by the Contractor, unless this use was disclosed to the Contractor before the Base Date or is stated in the Contract.

The Contractor in turn undertakes to indemnify the Employer against any claim alleging an infringement which arises from the Contractor's execution of the works or the use of the Contractor's equipment.

The last paragraph of clause 17.3 provides for the indemnifying party, at his own cost, to assume responsibility for negotiating a settlement of the claim, or litigating or arbitrating it. The indemnified party, if requested, is to assist in contesting the claim at the indemnifying party's cost, and there are provisions against the making of admissions which might be prejudicial to the indemnifying party.

The provisions concerning shared indemnities under clause 17.6 apply to the intellectual and industrial property rights indemnity in clause 17.3 just as they do to those given under clauses 17.4 and 17.5.

## 13.4 Insurance

The insurance provisions in clause 19 of the 2017 Books completely rewrite those in the 1999 editions (clause 18) and bring the 2017 Books much more in line in this respect with the 2008 Gold Book. Whereas the 1999 forms refer more neutrally to the 'insuring Party', the 2017 forms place the insuring obligations squarely upon the Contractor. The range of risks to be covered by the insurance to be taken out by the Contractor is wider than in the 1999 forms and, notably, includes professional indemnity insurance in respect of his fitness-for-purpose obligations under clause 4.1.

### 13.4.1 The 2017 Books

The insurance provisions in clause 19 are in largely the same terms in the three 2017 Books.

Clause 19.1 sets out general requirements, covering consent by the Employer to the insurers and the terms of the cover taken out; the Contractor's duty to produce the policies for the insurance he is required to effect and to pay the premiums due under them, with default provisions should he fail to do so; and the provision of an indemnity by the Contractor in respect of any direct losses and claims arising from a failure to comply with any condition of the insurances effected under the Contract, with a corresponding indemnity to be provided by the Employer should he fail to comply with any condition of the relevant policies. The Contractor must also notify insurers of any changes in the nature, extent or programme for the works and is responsible for the adequacy and validity of the insurances at all times during the performance of the Contract. Other provisions cover the permitted deductibles and the position where there is a shared liability, the loss in that case to be borne by each party in proportion to his liability.

Clause 19.2 sets out the insurances to be provided by the Contractor. There are six categories, covering the works, goods, breach of professional duty, injury to persons and damage to property, injury to employees and other insurances required by the applicable law and local practice.

### 13.4.2 The Works: Clause 19.2.1

The Contractor is to take out joint names insurance for the works, Contractor's documents and materials and plant for incorporation into the works, with provisions for the

amount of this cover in sub-paragraphs (a) and (b). The period of cover is to be from the commencement date until issue of the Taking-Over Certificate. Thereafter, the insurances are to continue until the issue of the Performance Certificate in respect of any incomplete work for loss or damage arising from any cause occurring before the issue of the Taking-Over Certificate, and for any loss or damage caused by the Contractor's fulfilling his clause 11 and 12 obligations (relating to rectifying defects after taking over and, in the Yellow and Silver Books, tests after completion[10] respectively).

Provision is made for the insurance to exclude (i) the cost of making good work which is defective or otherwise non-compliant, provided that the exclusion should not extend the cost of making good any loss or damage to any other part of the works which might be due to such a defect or non-compliance; (ii) indirect or consequential loss or damage, including any reductions in the Contract Price for delay; (iii) wear and tear, shortages and pilferages; and (iv) unless otherwise stated in the Contract Data, risks arising from Exceptional Events.

### 13.4.3 Goods: Clause 19.2.2

The Contractor must insure in joint names the goods and other things brought to site by the Contractor to the extent specified and/or in the amount stated in the Contract Data or, if not specified or stated, their full replacement value including delivery to the site. This insurance is to extend from the time the goods are delivered to site until they are no longer required for the works.

### 13.4.4 Liability for Breach of Professional Duty: Clause 19.2.3

To the extent of his responsibility for the design of the permanent works[11], and also consistently with the indemnities specified in clause 17,[12] the Yellow and Silver Book Contractor must (a) take out and maintain professional indemnity insurance against liabilities arising from his carrying out of the relevant design obligations in at least the amount stated in the Contract Data or, if not so stated, an amount agreed with the Employer and (b) if stated in the Contract Data, this cover is to indemnify the Contractor against any liability for failing to comply with his fitness-for-purpose obligations under clause 4.1. The Red Book Contractor has similar insuring obligations to the extent, if any, of his design responsibilities. The Contractor is to maintain the insurances under (a) and (b) above for the period specified in the Contract Data.

### 13.4.5 Injury to Persons and Damage to Property: Clause 19.2.4

The Contractor is to take out joint names cover against liabilities for death or injury or damage to other property arising from performance of the Contract and occurring before issue of the Performance Certificate, other than loss caused by an Exceptional

10 Note that in some print-runs of the 2017 Red Book clause 19.2.1 (second paragraph) also refers to tests after completion in this context; this was not intended and has been corrected by an Erratum issued by FIDIC.

11 Note the FIDIC Errata to the first paragraph of clause 19.2.3 in some print-runs of the 2017 Yellow and Silver Books.

12 See clauses 17.4 and 17.5, 2017 Books and the discussion at Section 13.2 above.

Event. The policy must also include a cross liability clause such that the insurance applies to the Contractor and the Employer as separate insureds; and the insurance has to be effected before the Contractor begins work on site and remain in force until the issue of the Performance Certificate. The amount of the cover must be not less than that stated in the Contract Data or, if not stated, an amount agreed with the Employer.

### 13.4.6 Injury to Employees: Clause 19.2.5

Here the Contractor has to take out and maintain insurance against liability for claims, damage, loss and expense arising from execution of the works in respect of injury, sickness, disease or death of any employee of the Contractor or his other personnel. The Employer and the Engineer (in the Silver Book, the Employer) are also to be indemnified except that the cover may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or his personnel. The cover is to be in place for the whole time the Contractor's personnel are assisting in the execution of the works; and for any person employed by a subcontractor, the insurance may be taken out by the subcontractor but the Contractor is to be responsible for the subcontractor's compliance with clause 19.2.5.

### 13.4.7 Other Insurances Required by the Applicable Law and by Local Practice: Clause 19.2.6

In addition to the insurances described above, the Contractor is to provide all other insurances required by the applicable law in the countries where any part of the works are being carried out at his own cost. If any local practice requires other insurances to be taken out then the Contract Data should so specify and the Contractor is to provide this insurance, again at his own cost.

# 14

# Exceptional Events

Clause 18 in all three of the 2017 Books deals with events or circumstances which prevent one of the parties from performing some or all of his obligations under the Contract. These events or circumstances are called 'Exceptional Events'; in the 1999 editions they are called 'Force Majeure' events or circumstances and are dealt with in clause 19. This change in terminology is in line with the new usage in the 2008 Gold Book. Since 'force majeure' may be used to refer to different things in different contexts (for example, to a legal doctrine in some civil law jurisdictions), it was thought less confusing and more accurate to speak of 'Exceptional Events'.

An 'Exceptional Event' is an event or circumstance which, in clause 18.1 of both editions of the Books, is defined as having four characteristics:

(i) it is beyond a party's control;
(ii) such party could not reasonably have provided against the event or circumstance before entering into the Contract;
(iii) having arisen, the party concerned could not reasonably have avoided or overcome it; and
(iv) the event or circumstance is not substantially attributable to the other party.

## 14.1 Examples of Exceptional Events

Clause 18.1 gives six examples of events or circumstances which may satisfy the above four requirements; they are:

(a) war, hostilities (whether war is declared or not), invasion, act of foreign enemies;
(b) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war;
(c) riot, commotion or disorder by persons other than the Contractor's personnel and other employees of the Contractor and subcontractors;
(d) strike or lockout not solely involving the Contractor's personnel and other employees of the Contractor and subcontractors;
(e) encountering munitions of war, explosive materials, ionising radiation or contamination by radioactivity, unless attributable to the Contractor's use of munitions, explosives, radiation or radioactivity; or

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(f) natural catastrophes such as earthquakes, tsunamis, volcanic activity, hurricanes or typhoons.

The above list is expressly not to be taken to be exhaustive; there are the other types of event or circumstance which may also qualify as Exceptional Events.

## 14.2 Notice Requirements

Clause 18.2 in the three 2017 Books provides that, if a party is or will be prevented from performing any obligations under the Contract due to an Exceptional Event, he must give a notice to the other party specifying the obligations whose performance is or will be prevented due to the Event within 14 days after he became aware, or should have become aware, of the Event. Having given such a notice, the party affected is then excused performance of the obligations which he is prevented from carrying out by reason of the Event, from the date such performance is prevented.

The above provisions are similar in clause 19.2 of the 1999 editions. However, in the 2017 editions it is additionally provided that if the above notice is received by the other party after the 14-day period then the affected party is excused performance of the prevented obligations only from the date on which the notice is received by the other party. This fills a gap in the 1999 editions, which merely provided that, having given notice, the affected party is excused from performance for as long as the force majeure prevents that party from performing the relevant obligations.

The 2017 editions at clause 18.2 (third paragraph) also expressly provide that, other than the performance of the prevented obligations, the affected party is not to be excused from performance of any other obligations under the Contract; this again is not expressly covered in the 1999 editions. Instead, the 1999 editions, clause 19.2, provide that force majeure does not apply to the obligations of either party to make payments to the other under the Contract.

This proviso concerning payments is included in the 2017 editions, by the last paragraph of clause 18.2, which provides that the obligations of either party to make payments to the other under the Contract are not to be excused by an Exceptional Event.

## 14.3 Duty to Minimise Delay

Exceptional Events are therefore events which prevent, rather than merely hindering or delaying, a party from carrying out obligations under the Contract. Like the 1999 editions, the party affected must nevertheless use all reasonable endeavours to minimise delay resulting from the Exceptional Event.

This is provided for by clause 18.3 in the 2017 editions, which goes beyond its counterpart in the first editions (clause 19.3) by specifying what is to happen if the Exceptional Event has a continuing effect, and also tightens up on the affected party's duty to notify the other party when the Exceptional Event ceases to have effect.

The second paragraph of clause 18.3 in the 2017 editions provides that if the Exceptional Event has a continuing effect the affected party must give further notices describing the effect of the Event 28 days after giving the first notice under clause 18.2. The

third paragraph provides that the party affected must immediately give a notice to the other party when the Exceptional Event ceases to affect him, and then provides for what happens if the affected party fails to do so: in that event the other party may himself give a notice, with reasons, stating that he considers that the affected party's performance is no longer prevented by the Exceptional Event.

This may be thought to be an improvement on clause 19.3 of the 1999 editions, which merely provides that the party affected has to give notice to the other when it ceases to be affected by the force majeure.

## 14.4 Consequences of an Exceptional Event

The FIDIC forms permit the Contractor affected by an Exceptional Event to claim an extension of time and, in certain circumstances, additional cost he has incurred as a result of the Event. This is covered in clause 19.4 of the 1999 editions and is covered in similar terms in clause 18.4 of the 2017 editions. The main difference arises in the list of events which give rise to an entitlement to additional cost, subject to making a claim.

Clause 18.4 in the 2017 editions provides for the Contractor who has given his notice under clause 18.2 and made a claim under clause 20.2 to obtain an extension of time. Subject to those two requirements, he may also be entitled to payment of additional cost he has incurred (a) if the Exceptional Event is one of the types described in sub-paragraphs (a) to (e) of clause 18.1 (see Section 14.1 above) and (b), in the case of sub-paragraphs (b) to (e), the Event occurs in the country in which the site (or most of it) for the permanent works is situated.

Thus an extension of time will normally follow an Exceptional Event if delay to completion occurs as a result of it but payment of additional cost only if the Event is one of the man-made events or circumstances listed in sub-paragraphs 18.1 (a) to (e) and moreover, in the case of (b) to (e), it occurs in the country where the works are situated.

The 2017 contracts thus impose fairly restrictive conditions on the Contractor's ability to claim additional cost. This is similar in the 1999 editions, where clause 19.4 also permits the Contractor to claim an extension of time for delays resulting from force majeure but restricts claims for additional cost to the man-made events or circumstances in sub-paragraphs (i) to (iv) and requires a sub-class (the sub-paragraph (ii) to (iv) events) to have occurred in the country where the works are situated.[1]

It should be noted that clause 18.1 in the 2017 conditions contains a separate Exceptional Event at sub-paragraph (d), namely, strike or lockout not solely involving the Contractor's personnel and other employees of the Contractor and subcontractors, which, provided it occurs in the country where the project is situated, also entitles the Contractor to payment of additional cost provided he claims.[2]

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1 Clause 18.4 of the 2017 Books permits the affected party to claim additional cost if the event or circumstance is 'of the kind described' in sub-paragraphs (a)–(e) of clause 18.1. Since the list of exceptional events in clause 18.1 is expressly not exhaustive, it is possible, at least in principle, that an event might be 'of the kind described' in one or other of the sub-paragraphs even if not exactly within the description contained in it, and thus entitle the affected party to claim additional cost as well as time. The same point would in principle apply to clauses 19.1 and 19.4 of the 1999 editions, which contain materially similar wording.

2 See Section 13.1.3(e) above.

## 14.5 Optional Termination

If the effects of an Exceptional Event or force majeure continue beyond a certain point the FIDIC contracts allow either party, Contractor or Employer, to terminate the Contract. In both editions of the three Books, if the execution of substantially all the works in progress is prevented for either a continuous period of 84 days or for multiple periods totalling more than 140 days due to the same Event or force majeure then either party may end the Contract by giving the other seven days' notice.

There is a difference to note in the date when the termination takes effect between the two editions. In the 1999 editions the termination takes effect seven days after the notice is given (clause 19.6) but in the 2017 Books the date of termination is seven days after the notice is received by the other party (clause 18.5). There may not be any difference in practice where, for example, the notice is given electronically, but in certain circumstances the effective date of termination could be different depending on whether the 1999 or 2017 wording applies.

Following termination in both editions the Engineer/Employer or Employer's Representative proceeds to make a determination of the amounts payable to the Contractor, but the 2017 editions at clause 18.5 cover this in somewhat more detail. The Contractor as soon as practicable after the date of termination is to submit detailed supporting particulars (as reasonably required by the Engineer/Employer's Representative) of the value of the works done, including amounts payable for any work for which a price is stated in the Contract; the cost of plant and materials ordered for the works; other costs or liabilities reasonably incurred in the expectation of completing the works; and costs of demobilising and repatriating the Contractor's staff and labour. Once these particulars have been provided the Engineer/Employer's Representative proceeds to agree or make a determination under clause 3.7/3.5 and either certifies the appropriate interim payment or (in the Silver Book) gives a notice of such a payment, without the need in either case for the Contractor to submit a statement under clause 14.3.

## 14.6 Release from Performance Under the Applicable Law

The FIDIC forms provide in both editions for the parties to be released from performance of their obligations under the Contract where any event outside the control of the parties, including but not limited to an Exceptional Event or Force Majeure as defined, occurs which either (a) makes it impossible or unlawful for either party or both of them to fulfil their contractual obligations or (b) under the governing law, entitles the parties to be released from further performance. This is an important provision which enables, for example, a contract to be declared frustrated if the governing law is English law and the parties are accordingly discharged from further performance, whether or not the relevant circumstances fall within the definition of Exceptional Event or Force Majeure under clauses 18.1 or 19.1 respectively.

In the 2017 editions, clause 18.6 provides for the discharge from further performance to take effect upon the giving of a notice of the relevant event, this notice in turn to be given only if the parties are unable to agree on an amendment to the Contract that would permit the continued performance of it. This is in contrast to the position under clause 19.7 of the 1999 editions, which contains no reference to agreeing any such amendment

but provides merely for the giving of the notice when the relevant event occurs. It may be thought the 2017 editions improve on the earlier ones by expressly requiring the parties to attempt to agree on an amendment to enable the Contract to continue to be performed, rather than going straight for a notice discharging them from performance.

In both editions, the discharge from further performance is without prejudice to the rights of either party in relation to any previous breach of the Contract. Further, the amount payable by the Employer to the Contractor is to be the same as would have been payable under clause 18.5, that is, where there has been a termination due to prolonged effects of the Exceptional Event or Force Majeure; and the Employer is to pay that amount as if the Contract had been terminated under that clause.

# 15

# Employers' and Contractors' Claims

One of the most striking differences between the 2017 and 1999 FIDIC Books is the way in which claims are dealt with. Whereas in the first editions Contractors' claims are dealt with along with disputes and arbitration in a single clause 20, in the second editions Contractors' and Employers' claims are dealt with together and in precisely the same way, in a new clause 20, with disputes and arbitration being dealt with in a new clause 21.

'Claim' is now a defined expression, and the 2017 Books deal with claims other than for time and/or money in a more systematic way involving the Engineer or Employer's Representative, who in general has an enhanced role in dealing with claims. The time bar that applies only to Contractors' claims under clause 20.1 in the 1999 Books applies equally now to Employers' claims, with the new possibility of waiver of the bar in certain circumstances.

The procedure for making and dealing with claims is far more detailed and prescriptive than in the 1999 forms, with a more step-by-step approach taken supported by additional time bars and deeming provisions. Whereas in the first editions Contractors' claims, disputes and arbitration are dealt with in just over four pages, these topics are covered in over ten pages in the 2017 editions.

Clause 20 in all three of the 2017 Books is in the same terms, with some relatively minor differences in the Silver Book to reflect the fact that there is no Engineer in that form.

## 15.1 The Categories of Claim: Clause 20.1

The 2017 contracts define a 'Claim' to be a request or assertion by one party to the other for an entitlement or relief under any clause of the Contract conditions or otherwise in connection with or arising out of the Contract or the execution of the works.[1] Claims are divided by clause 20.1 into three categories: claims for time; claims for money (including a reduction in the Contract Price); and claims for any other kind of entitlement or relief.

Thus a claim may arise:

(a) if the Employer considers he is entitled to any additional payment (or a reduction in the Contract Price) and/or to an extension to the Defects Notification Period (DNP), or

1 2017 Yellow Book clause 1.1.5/Red Book clause 1.1.6/Silver Book clause 1.1.3.

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

(b) if the Contractor considers he is entitled to any additional payment and/or to an extension of time, or
(c) if either party considers he is entitled to another entitlement or relief against the other of any kind whatever, including in relation to any certificate, determination, instruction, notice, opinion or valuation (except to the extent that it involves any entitlement referred to in either of (a) or (b) above).

If sub-paragraphs (a) or (b) above apply then the claim is dealt with under clause 20.2, which specifically covers claims for time and/or money. Part of the procedure under clause 20.2 is for the time or money claim to be agreed or determined by the Engineer/Employer's Representative in accordance with clause 3.7/3.5.

If the claim comes under sub-paragraph (c) then it is dealt with by the Engineer or Employer's Representative under clause 3.7/3.5 if there is any disagreement as to the claimed entitlement or relief; that is, the agreement or determination procedure under those clauses will also apply to the claim.[2]

The policy of the new Books is to channel claims through the Engineer/Employer's Representative rather than allowing claims to go directly to a DAAB, whereas in the 1999 editions claims in the sub-paragraph (c) category would not fall to be dealt with under clauses 20.1 or 2.5 but would go to a DAB under clause 20.4.

It is to be noted that, unlike claims for time or money, no time bar applies in relation to a sub-paragraph (c)-type claim: the notice referring the claim to the Engineer or Employer's Representative merely has to be given as soon as practicable after the claiming party becomes aware of the disagreement and is to include details of his case and the Engineer's or other party's disagreement (clause 20.1, second paragraph). Provision is also made (second paragraph) for deemed disagreement with a requested entitlement or relief if the other party or the Engineer (in the Yellow and Red Books) or the other party (in the Silver) does not respond within a reasonable time.

Thus the new Books set out systematically the three categories of claim that might arise and define a path to be followed in dealing with each. The fact that sub-paragraph (c)-type claims, not relating to time and/or money, are (if not agreed) now to be dealt with by the Engineer/Employer's Representative significantly enhances and expands the role of the contract administrator in the 2017 forms. He could be called upon to deal with quite complicated questions of law which previously would have gone to a DAB, such as whether, for example, a party might exercise non-contractual rights and obligations relating to the subject-matter of the Contract.

## 15.2 Claims for Money and/or Time

These are dealt with under clause 20.2 by a detailed, step-by-step procedure involving deeming provisions and time bars but with more generous and perhaps realistic time limits for preparing detailed claims and for the Engineer's or Employer's Representative's response. There is also some flexibility with respect to certain of the time bars applying to these claims.

2 The third paragraph of clause 20.1 in the 2017 Books accordingly provides that a 'Dispute' does not arise where there is any disagreement as to a sub-paragraph (c)-type claim but that, by giving a notice, the claiming party may refer the claim to the Engineer or Employer's Representative under clause 3.7/3.5. 'Dispute' is now a defined expression in the three 2017 Books: see Section 16.2.1 below.

### 15.2.1 The Notice of Claim: Clause 20.2.1

Clause 20.2.1 requires the claiming party to give a notice of his claim to the Engineer, or in the case of the Silver Book to the other party, describing the event or circumstance giving rise to the claim (the 'Notice of Claim') as soon as practicable and no later than 28 days after the claiming party became aware, or should have become aware, of the event or circumstance. The subject matter of the claim will be any claim for cost, loss, delay or an extension to the DNP.

The content of the Notice of Claim in the 2017 Books is similar to the initial notice for Contractors' claims under clause 20.1 of the 1999 editions, in that all that is required is a description of the event or circumstance giving rise to the claim. As with the 1999 editions, the legal or contractual basis of the claim (including the clause of the Contract under which it is made[3]) need not be specified at this stage; it will form part of the fully detailed claim under clause 20.2.4.

The wording in clause 20.2.1 is similar to clause 20.1 in the 1999 editions in the following two further respects: the time limit for giving the Notice is objective, in the sense that time starts to run from the date when the claiming party became aware or ought to have become aware of the event or circumstance giving rise to the claim; and in both cases the period for giving the notice is 28 days.

However, no distinction is drawn in clause 20.2.1 between Contractors' and Employers' claims. Under the 1999 editions (clause 2.5), the Employer was required only to notify his claim for payment or for an extension to the DNP as soon as was reasonably practicable from the time when he became aware (and not when he ought to have become aware) of the relevant event or circumstance.

It should be remembered that Notices of Claim under clause 20.2.1 must comply with the requirements for a notice of any kind stated in clause 1.3. As well as being in writing and complying with the other formalities set out in that clause, the Notice of Claim must identify itself as a notice and be delivered in one of the prescribed ways. The 1999 contracts did not contain any such requirements and there were typically arguments about whether, for example, minutes of meetings, revised programmes or even oral exchanges amounted to sufficient notice of a claim.

### 15.2.2 The Clause 20.2.1 Time Bar

The second paragraph of clause 20.2.1 contains a time bar in similar terms to the Contractors' claims time bar under clause 20.1 of the 1999 Books, applied now to both parties. If the claiming party fails to give a Notice of Claim within the 28-day period he is not to be entitled to any additional payment, the Contract Price is not to be reduced or the DNP extended (where the Employer is the claiming party) or the time for completion (where the Contractor is the claiming party) extended and the other party is to be discharged from any liability in connection with the event or circumstance giving rise to the claim.

As we shall see below, there are certain circumstances in which this time bar may be waived by the Engineer/Employer's Representative or the DAAB. There may, however,

3 In the pre-release edition of the 2017 Yellow Book clause 1.3(b) did require the Notice to include reference to the clause under which it was given, but following feedback obtained during the friendly review this requirement was removed.

be a question about whether the time bar is enforceable in the first place. The extent to which such a clause is enforceable where, for example, the Notice is given just after the 28-day time limit has expired, or where the other party knew all along what the claiming party sought by way of relief and was taking advantage of its failure to give the Notice strictly within time, will depend on the governing law of the Contract. In some civil law jurisdictions the parties' obligations of good faith may prevent one party from taking advantage of a technical breach of a time provision to exclude an otherwise meritorious claim about which the other party was aware. The English law position is in general to give effect to clearly drafted time bars, which specify the precise time within which the notice is to be given and spell out that the claiming party will lose its right to claim unless the notice is given within the prescribed time.[4] The time bar in clause 20.1 of the 1999 forms and that in clause 20.2.1 of the 2017 forms comply with these requirements and are likely to be upheld by a tribunal applying English law.[5]

### 15.2.3 Initial Response to the Claim: Clause 20.2.2

Clause 20.2.2 contains a mechanism for resolving at an early stage whether the claiming party has given his Notice of Claim within the 28 days. Under the 1999 forms, this question may often be left in abeyance and might emerge later at the DAB stage. Employers who do not take the point immediately run the risk of meeting an argument that they have waived it but there is no procedure built into the clause 20.1 process for the matter to be dealt with as part of dealing with the claim itself.

In the 2017 editions, if the Engineer or (in the Silver Book) the other party considers that the claiming party has failed to give his Notice within the 28 days he must, within 14 days after receiving the Notice, give a notice to the claiming party accordingly, with reasons. If the Engineer/other party fails to give such a notice within the 14 days then the Notice of Claim is to be deemed to be a valid Notice.

In the Red and Yellow Books, however, this deemed validity is provisional only. If the other party disagrees with such deemed valid Notice of Claim he is to give a notice to the Engineer giving details of the disagreement and thereafter the question whether the Notice of Claim was given in time will be dealt with by the Engineer as part of the clause 20.2.5 procedure for agreeing or determining the claim (see Section 15.2.7 below). So if the Contractor puts in his Notice of Claim late but the Engineer does not put in his own

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4 See *Bremer Handelgesellschaft mbH v Vanden Avenne Izegem NV* [1978] 2 Lloyd's Rep 109.

5 See *Multiplex Construction v Honeywell Control Systems* [2007] EWHC 447 (TCC); *WW Gear Construction Ltd v McGee Group Ltd* [2010] EWHC 1460. Although an English decision, some guidance on the construction of the clause 20.1 (1999) and the similarly worded clause 20.2.1 (2017) time bar in the context of extensions of time claims may be found in the judgment of Akenhead J in *Obrascon Huarte Lain SA v Her Majesty's Attorney General for Gibraltar* [2014] EWHC 1028 (TCC). Clause 8.4 in the 1999 forms (materially similar to 8.5 in the 2017) entitles the Contractor subject to clause 20.1 (or 20.2) to an extension of time if and to the extent that completion '… is or will be delayed…' by a relevant event or circumstance. Since the Contractor has to give his initial notice within 28 days of when he became aware or should have become aware of the event or circumstance the question when the 28 days starts to run arises. The court construed the clause to mean that the Contractor had a choice whether to give notice when it was clear that there would be a delay resulting from the event or circumstance or at a later date, after the delay had begun to be incurred. On the wording of clause 20.1, although giving notice in time was a condition precedent to his entitlement to claim, the judge could '… see no reason why this clause should be construed strictly against the Contractor and [could] see reason why it should be construed reasonably broadly, given its serious effect on what could otherwise be good claims…' ( [312]).

notice within 14 days, so that the Contractor's Notice is deemed valid, the Employer may give a notice to the Engineer setting out why he disagrees that the Contractor's Notice is valid – it was given 29 days, say, after the relevant trigger-point – and the Engineer will then review the Employer's arguments as part of the clause 20.2.5 process in dealing with the claim. Thus the process will continue and the time bar question will be resolved as part of the Engineer's dealing with the claim.

In the Silver Book, in which the claiming party gives his Notice of Claim to the other party and not to the Employer's Representative, there is no provision for this kind of challenge to a deemed valid Notice of Claim. Instead, if the other party does not give the 14-day notice in time the Notice of Claim is simply deemed to be a valid Notice.[6]

In all three 2017 Books, however, where the claiming party does receive a notice from the Engineer or other party within the 14 days, then, if the claiming party either (a) disagrees with the Engineer/other party (that is, considers that the Notice of Claim was given within the 28 days) or (b) accepts that it was not, but considers that there are circumstances which justify its late submission, then the claiming party is to include in its fully detailed claim under clause 20.2.4 (see Section 15.2.5 below) details of its disagreement, or why it considers that such late submission was justified. These questions are therefore dealt with as part of the claims process (as well as, in the Red and Yellow Books, any challenge by the other party to the deemed validity of the Notice of Claim).

### 15.2.4 Contemporaneous Records: Clause 20.2.3

Both editions of the three Books recognise the importance of contemporaneous records in investigating and evaluating a claim. In the 1999 editions clause 20.1 provides for the Contractor to keep whatever contemporaneous records might be necessary to substantiate any claim and the Engineer or Employer is entitled to monitor this record-keeping after receiving a claim notice and to give instructions to the Contractor to keep further such records. The 2017 Books provide for the claiming party, whether Contractor or Employer, to keep 'contemporary records', defined to mean records prepared or generated at the same time or immediately after the event or circumstance giving rise to the claim. The claiming party is obliged to keep whatever contemporary records may be necessary to substantiate the claim and, as in the 1999 editions, the Engineer/Employer may monitor the Contractor's contemporary records and/or instruct him to keep additional such records.

The 1999 editions also permit the Engineer/Employer to inspect the Contractor's records and obtain copies. In the 2017 editions the Engineer/Employer has a similar right. In both editions the monitoring of the Contractor's records or instructing the keeping of additional ones does not imply any admission of the Employer's liability. In the 2017 editions it is additionally made clear that any monitoring, inspection or instruction by the Engineer/Employer does not imply acceptance of the accuracy or completeness of the Contractor's contemporary records.

### 15.2.5 The Fully Detailed Claim: Clause 20.2.4

The 1999 Books provide for the Contractor to provide a fully detailed claim within 42 days after he became aware or should have become aware of the event or circumstance

6 Clause 20.2.2, second paragraph.

giving rise to the claim, on the assumption that the initial 28-day notice under clause 20.1 has been given; the 42 days runs from the date, not of the claim notice, but of the above awareness. Not very much is said in the 1999 Books about the fully detailed claim, beyond the requirement that it should include full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed, and no time bar applies if the Contractor is late.

The 2017 Books at clause 20.2.4 also provide for a fully detailed claim but contain more detail about the contents of the claim, a more generous timetable for its production and a time bar if the claiming party is late.

'Fully detailed Claim' is defined in clause 20.2.4 to mean a submission which includes:

(a) a detailed description of the event or circumstance giving rise to the claim;
(b) a statement of the contractual and/or other legal basis of the claim;
(c) all contemporary records on which the claiming party relies; and
(d) detailed supporting particulars of the amount of additional payment claimed (or amount of reduction of the Contract Price if the Employer is the claiming party) and/or the extension of time claimed (in the case of the Contractor) or extension to the DNP claimed (in the case of the Employer).

These requirements cover more details than many Contractors provide under the 1999 editions as part of their fully detailed claims under clause 20.1, and have been criticised as too onerous. The policy of the 2017 contracts, however, is to require the claiming party to provide as much detail and supporting evidence as possible at the claim stage rather than at the DAAB stage or later; and it is thought that the right balance probably has been struck, especially as a more generous timetable for providing the fully detailed claim now applies.

The fully detailed claim has to be submitted to the Engineer or Employer's Representative within 84 days after the claiming party became aware or ought to have become aware of the event or circumstance giving rise to the claim, or whatever other period may be proposed by the claiming party and agreed by the Engineer (or if the Silver Book, the other party). This is by contrast with the 1999 editions, in which 42 days from the above date of awareness of the relevant event, or such other period as might be agreed, is allowed for the provision of the fully detailed claim.

The claiming party in the 2017 Books thus has twice as long to provide the fully detailed claim as he has under the 1999 editions.

### 15.2.6 The Clause 20.2.4 Time Bar

Unlike the 1999 Books, if the claiming party fails to provide his fully detailed claim within the 84 days he runs the risk of a time bar applying: in particular, if he fails to submit at least a statement of the contractual and/or other legal basis of the claim his Notice of Claim will be deemed to have lapsed and to be no longer valid. The Engineer or Employer's Representative is then to give a notice accordingly within 14 days after this time limit has expired, otherwise, by clause 20.2.4, the Notice of Claim will be deemed to be valid after all. However, if the other party disagrees with such deemed valid Notice of Claim he is to give a notice to the Engineer or Employer's Representative giving details of the disagreement and thereafter the question whether the legal basis of the claim was

given in time will be dealt with by the Engineer or Employer's Representative as part of the clause 20.2.5 procedure for agreeing or determining the claim.

Thus in the three 2017 Books a mechanism is set out for resolving as part of the claims process any disagreement about whether the statement of legal basis was given in time. It is essentially the same mechanism as that which applies in the Red and Yellow Books in relation to the initial Notice of Claim where there is an argument about deemed validity under clause 20.2.2 (see Section 15.2.3 above); that mechanism now applies in relation to the statement of the legal basis of the claim under clause 20.2.4, since in each Book it is the contract administrator (Engineer in the Red and Yellow Books and Employer's Representative in the Silver) who receives the fully detailed claim/statement of legal basis.[7]

Where the claiming party does receive the 14-day notice, either from the Engineer or (if the Silver Book) the Employer's Representative,[8] then, if the claiming party either (a) disagrees with the Engineer/Employer's Representative (that is, considers that the statement of legal basis was given within the 84 days) or (b) accepts that it was not, but considers that there are circumstances which justify its late submission, then the claiming party is to include in its fully detailed claim under clause 20.2.4 details of its disagreement or why it considers that such late submission is justified. These questions are therefore dealt with as part of the claims process under clause 20.2.5.

The last paragraph of clause 20.2.4 serves to flag up the possibility that the event or circumstance giving rise to the claim may have a continuing effect by referring to clause 20.2.6, which deals with such claims. As described in Section 15.2.13 below, a consequence of this is that in such a case the fully detailed claim under clause 20.2.4 is to be treated as interim.

### 15.2.7 Agreement or Determination of the Claim: Clause 20.2.5

Clause 20.2.5 in the three 2017 Books sets out the steps to be taken in agreeing or determining a claim.

After receiving a fully detailed claim in accordance with clause 20.2.4, or (where there is a claim of continuing effect) an interim or final fully detailed claim, the Engineer/Employer's Representative is to proceed in accordance of clause 3.7/3.5 (if the Silver Book) to agree or determine:

(a) any additional payment due to the claiming party, or if the Employer is the claiming party any reduction of the Contract Price; and/or
(b) any extension of time to which the Contractor (if the claiming party) is entitled or any extension to the DNP (if the Employer is the claiming party).

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7 By contrast with the Notice of Claim under clause 20.2.1 in the 2017 Silver Book, which is given to the other party rather than to the Employer's Representative.

8 It should be noted that in the current print-run of the 2017 Silver Book the fifth paragraph of clause 20.2.4 reads 'If the claiming Party receives a Notice from the other Party under this sub-clause 20.2.4 and if the claiming Party disagrees with such Notice or considers that there are circumstances which justify late submission of the statement under sub-paragraph (b) above, the fully detailed Claim shall …'. The reference here to 'the other Party' rather than to the Employer's Representative appears to be a misprint, since the notice referred to is the notice to the claiming party that the statement under sub-paragraph (b) is out of time, and this notice is given by the Employer's Representative and not the other party (see third paragraph). It is hoped that this error will be corrected in subsequent print-runs.

As described in Section 3.3.3 above, this process is subject to time limits. These depend upon whether agreement is or is not achieved during the consultation process under clause 3.7.1/3.5.1.

- *Agreement achieved*

If agreement is achieved then (by clause 3.7.3/3.5.3) the Engineer/Employer's Representative must give a notice of agreement within 42 days (or other agreed time) after the following dates:

(i) in the case of a claim under sub-paragraph (c) of clause 20.1 (dealing with claims other than for time and/or money: see Section 15.1 above), the date when the Engineer/Employer's Representative receives a notice under clause 20.1 referring the claim; or
(ii) in the case of a claim under sub-paragraphs (a) or (b) of that clause, the date when the Engineer/Employer's Representative receives either the fully detailed claim under clause 20.2.4 or, if the claim is of continuing effect under clause 20.2.6, an interim or final fully detailed claim.

The Engineer/Employer's Representative thus has 42 days to notify agreement, if agreement is reached, running from one of the above starting times and therefore a 42-day limit on reaching agreement applies.

- *Agreement not achieved*

If no agreement is reached within the time limit, or both parties advise the Engineer/Employer's Representative that no agreement can be reached within that time, whichever is the earlier, the Engineer/Employer's Representative is to give a notice to the parties accordingly and immediately proceed to make a determination under clause 3.7.2/3.5.2.

The Engineer/Employer's Representative must give a notice of his determination within 42 days (or whatever other time may be agreed) after the earlier of (a) the relevant time limit for reaching agreement under clause 3.7.3/3.5.3 or (b) the date when both parties advise that they cannot reach agreement within the relevant time. The Engineer or Employer's Representative may therefore have as long as 84 days for reaching his determination, since he has 42 days for notifying a determination from after the 42-day time limit for reaching agreement. (He may have less time if he receives notification that no agreement can be achieved within the 42 days, in which case the notice must be given 42 days after he has been so advised.)

### 15.2.8 Comparison with 1999 Forms

The above procedure is highly structured by comparison with the procedure in the 1999 forms. Here, within 42 days after receiving a fully detailed claim (or longer if agreed with the parties) the Engineer or Employer responds with approval or disapproval and detailed comments; he might request further details but should give his response on what are called the principles of the claim within the 42 days or any extension agreed. So, for example, he might agree that the Contractor is entitled to an extension of time but not yet have decided how long he should be granted. The 1999 forms provide that

the Engineer or Employer should proceed under clause 3.5 to determine or agree this question (and any additional payment), but there is no time limit for doing so.

The new clause 3.7/3.5 procedure introduces time limits in order better to manage the procedure and prevent it from drifting. This does give rise to considerable additional complexity, but this in turn is largely due to the need to provide different times for different permutations of claim and agreement or disagreement, and thus greater flexibility in the procedure. So, for example, the 42-day period for the notice of agreement, if reached, under clause 3.7.3/3.5.3 starts to run from different dates depending on what kind of claim is in issue.

### 15.2.9 Agreeing or Determining Time Bar Issues

As described above:

(a) if the claiming party is late with his initial Notice of Claim the Engineer (Red and Yellow Books) or other party (Silver) may give a notice under clause 20.2.2;
(b) if the claiming party is late with submitting his statement of the contractual and/or other legal basis of his claim (required of the fully detailed claim) the Engineer (Red and Yellow Books) or Employer's Representative (Silver) may give a notice under clause 20.2.4.

Where a notice under either or both of the above clauses has been given the claiming party may dispute such a notice or seek to justify the late submission within, as discussed above, the clause 3.7/3.5 agreement or determination procedure.

Clause 20.2.5 in the three 2017 Books provides that, if a notice has been given under clause 20.2.2 and/or 20.2.4, the agreement or determination of the claim under clause 3.7/3.5 is to include whether or not the Notice of Claim[9] is to be treated as a valid Notice taking account of (a) the details (if any) included in the fully detailed claim of the claiming party's disagreement with the notice(s) or (b) why late submission is justified (as the case may be).

The circumstances which may be taken into account by the Engineer or Employer's Representative where it is contended that late submission is justified, but which do not bind him, may include (but the list is not intended to be exhaustive) the following three circumstances, listed in the second paragraph of clause 20.2.5:

(i) whether or to what extent the other party would be prejudiced by acceptance of the late submission;
(ii) where the Notice of Claim was given later than the 28 days, any evidence of the other party's prior knowledge of the event or circumstance giving rise to the claim (which evidence the claiming party may and in practice should include in its supporting details or particulars); and/or

9 The reference here is to the Notice of Claim because, although the disagreement may relate to the notice given in relation both to the Notice of Claim under clause 20.2.2 and to the absence of a statement of the legal basis of the claim under clause 20.2.4, in each case the effect of the failure to comply with the time limit is that the Notice of Claim is deemed not to be valid (either because it has failed to comply with the initial 28-day time limit or because it has lapsed because the statement of legal basis was submitted later than the 84 days permitted under clause 20.2.4).

(iii) where the time limit for providing the statement of the legal basis of the claim has been breached, any evidence of the other party's prior knowledge of the contractual and/or other legal basis of the claim (which again the claiming party may and in practice should include in its supporting details or particulars).

Thus a degree of flexibility is provided where the claiming party has not met the relevant time limit in connection either with the initial Notice of Claim or the contractual or other legal basis of the claim under clause 20.2.4.

It is to be noted that the 2008 Gold Book also contains, at clause 20.1(a), provision for the Contractor to seek a waiver of the 28-day time limit for the initial notice of claim; this marks a very significant change from the 1999 editions, in which no provision is made for any such waiver. Unlike the three 2017 Books, however, the question whether the Contractor's failure to keep to the time limit should be waived is a matter for a ruling by the DAB in the Gold Book. If the DAB considers that, in all the circumstances, it is fair and reasonable for the late submission to be accepted it has express authority to overrule the 28-day time limit. For the 2017 contracts, it was decided that keeping such questions within the agreement or determination process rather than referring them to the DAAB was preferable and consistent with the overall policy of channelling claims initially to the Engineer/Employer's Representative.

### 15.2.10 Other Time Bars Affecting the Claim

Another time bar may apply once the Engineer/Employer's Representative has given notice of his determination of the claim. As discussed in Section 3.3.5 above, if a party is dissatisfied with the determination he must give a Notice of Dissatisfaction (NOD) to the other party within a strict 28-day time limit or the determination will be deemed to have been accepted by both parties and will become final and binding. No provision exists for waiving any failure to comply with this time limit.

If a NOD is given in time, a Dispute arises and either party may proceed under clause 21.4 to obtain a DAAB decision on it. The Dispute must, however, be submitted to the DAAB within 42 days, otherwise the NOD is deemed to have lapsed and no longer to be valid.[10] Again there is no provision for waiving a failure to comply with this time limit.

Similarly, after the DAAB has given its decision, which it must do within 84 days unless longer is agreed, a party dissatisfied with it must give a NOD within 28 days otherwise the decision becomes final and binding and again there is no provision for any waiver.[11]

### 15.2.11 The Time Bars: Summary

Thus, five time bars affect the progress of a time or money claim by either party in the 2017 Books, from the initial Notice of Claim through to a DAAB decision, two of which may be waived. In summary these are:

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10 See Section 16.2.3 below.

11 See Section 16.2.6 below. There is no time limit for referring a claim to arbitration once the NOD in relation to the DAAB decision has been duly given. This marks a change from the pre-release Yellow Book, which provided (at clause 21.4.4) that the NOD was to lapse if arbitration was not commenced by either party within 182 days after giving or receiving the NOD.

(i) Claiming party must give a Notice of Claim to Engineer or (if Silver Book) other party within 28 days otherwise Notice invalid (subject to Engineer/other party's giving a notice under clause 20.2.2 within 14 days, otherwise Notice of Claim either deemed valid provisionally (Red and Yellow Books) or deemed valid (Silver)).
(ii) Claiming party must submit fully detailed claim to Engineer/Employer's Representative within 84 days; if contractual/legal basis not submitted within that time, Notice of Claim lapses/becomes invalid (subject to Engineer/Employer's Representative's giving a notice under clause 20.2.4 within 14 days, otherwise Notice of Claim deemed valid provisionally).
(The Engineer/Employer's Representative may waive time bars (i) and (ii) above by taking into account relevant circumstances, which may include whether and to what extent the other party would be prejudiced by the late submission and the other party's prior knowledge of the event or circumstance giving rise to the claim and/or the legal/contractual basis of the claim.)
(iii) After the Engineer/Employer's Representative determines the claim under clause 3.7/3.5 (including the validity of the Notice of Claim) a party must give a NOD in respect of the determination within 28 days, creating a Dispute, otherwise the determination becomes final and binding.
(iv) The Dispute must be submitted to the DAAB within 42 days, otherwise the NOD becomes invalid.
(v) A party may give a NOD in respect of the DAAB's decision within 28 days, otherwise the decision becomes final and binding.

In the 1999 Books a time bar also applies to the notice of dissatisfaction with the DAB's decision (clause 20.4), and to the Contractor's initial notice of claim under clause 20.1, but neither of these two time bars can be waived.

### 15.2.12 Further Details

As noted above, the 1999 contracts provide for the Engineer or Employer to require further particulars of a claim, but is to respond on the principles of the claim within the 42 days after receiving the fully detailed claim. Clause 20.2.5 in the 2017 Books, final paragraph, similarly enables the Engineer or Employer's Representative to require necessary additional particulars by the claiming party but sets out a more structured procedure:

(i) the Engineer/Employer's Representative must promptly give a notice to the claiming party describing the additional particulars and the reasons for requiring them;
(ii) as in the 1999 Books, he is nevertheless to give his response on the contractual or other legal basis of the claim by giving a notice to the claiming party within the (42-day) time limit for agreement under clause 3.7.3/3.5.3;
(iii) as soon as practicable after receiving the notice under (i) above, the claiming party must submit the additional particulars; and
(iv) the Engineer/Employer's Representative is then to proceed under clause 3.7/3.5 to agree or determine any entitlements to additional payments or extensions of time under sub-paragraphs (a) and (b) of clause 20.2.5 (and for purposes of the time

limits under clause 3.7.3/3.5.3 the 42 days for reaching agreement starts to run from the date when the additional particulars are received).

In the above procedure the Engineer's or Employer's Representative's duty to respond on the contractual or other legal basis of the claim under step (ii) is the counterpart of the Engineer's or Employer's obligation to respond on the principles of the claim within the 42 days after receiving the fully detailed claim under clause 20.1 of the 1999 Books.

### 15.2.13 Claims of Continuing Effect: Clause 20.2.6

The 1999 Books provide for Contractors' claims of continuing effect in clause 20.1, fifth paragraph, by treating the fully detailed claim submitted within the 42 days as interim only, the Contractor to send further interim claims at monthly intervals stating the accumulated delay and/or amount claimed and any further particulars which the Engineer or Employer might reasonably require; the Contractor is then to send a final claim within 28 days after the end of the effects resulting from the relevant event or circumstance (or within whatever other period might be agreed with the Engineer or Employer).

This procedure is substantially followed in the 2017 Books, but in a more structured way involving the giving of notices.

As in the 1999 Books, where the event or circumstance giving rise to a claim has a continuing effect then, by clause 20.2.6, the fully detailed claim under clause 20.2.4 is to be treated as interim. In respect of this 'first interim fully detailed claim' the Engineer or Employer's Representative must give his response on the contractual or other legal basis of the claim by giving a notice to the claiming party within the time limit for agreement under clause 3.7.3/3.5.3. The claiming party must then submit further interim fully detailed claims at monthly intervals giving the accumulated amount of additional payment claimed (or reduction in the Contract Price if Employer) and/or the extension of time claimed (or extension to the DNP if Employer).

As in the 1999 books, after the end of the effects resulting from the relevant event or circumstance the claiming party must submit a final fully detailed claim within 28 days, or whatever other time may be agreed with the Engineer/Employer's Representative. Unlike the 1999 forms, however, the 2017 Books provide expressly (what was implicit in the earlier forms) that the final fully detailed claim must give the total amount of additional payment claimed/reduction in Contract Price and/or the extension of time/extension to the Defects Notification Period claimed.

## 15.3 General Requirements: Clause 20.2.7

Clause 20.2 in the 2017 forms concludes by a sub-clause 20.2.7 covering three matters:

(i) The first matter concerns cash-flow pending agreement or determination of the claim under clause 20.2.5. After receiving a Notice of Claim, and until the claim is agreed or determined, the Engineer/Employer is to include in each payment certificate/payment whatever amounts may have been reasonably substantiated as due to the claiming party under the Contract. This mirrors clause 20.1 in the 1999 forms, seventh paragraph, which provides that each payment certificate or (in the case of the Silver Book) interim payment should include amounts which have been

reasonably substantiated for any claim and where only part of a claim has been substantiated payment should be made for that part.

(ii) The second paragraph of clause 20.2.7 provides that the Employer shall only be entitled (a) to claim any payment from the Contractor and/or to extend the Defects Notification Period or (b) to set-off against or make any deduction from any amount due to the Contractor, by complying with the claims process under clause 20.2. This mirrors the final paragraph of clause 2.5 in the 1999 editions, which provides that the Employer may only set-off against or make any deduction from an amount certified or due to the Contractor, or otherwise to claim against the Contractor, in accordance with that clause.

(iii) Finally, the third paragraph of clause 20.2.7, like the last paragraph of clause 20.1 in the 1999 editions, provides that the requirements of clause 20.2 are in addition to those of any other clause which might apply to the claim. If the claiming party fails to comply with clause 20.2, or any other relevant clause, then any additional payment and/or any extension of time or extension to the Defects Notification Period is to take into account the extent (if any) to which that failure has prevented or prejudiced the proper investigation of the claim by the Engineer or Employer's Representative.

# 16

# Dispute Resolution

FIDIC contracts historically provided for disputes to be resolved by a reference to the Engineer for his decision, followed by a reference to arbitration if the Engineer's decision did not resolve the matter. A novel feature of the 1995 Orange Book was the introduction of an adjudication board to replace the Engineer as pre-arbitral decision maker. This new body would be independent and provide a binding even if not necessarily final decision on a matter within a relatively short time. The adjudication board's independence addressed the perceived lack of independence of the Engineer, who was engaged by the Employer.

The introduction of an adjudication board in the Orange Book to take over the Engineer's pre-arbitral decision-making role was an important step in the development of FIDIC contracts and reflected the increasing use of dispute boards internationally. Such boards could either be dispute review boards, which generally speaking made recommendations to the parties as opposed to decisions on their disputes, or dispute adjudication boards, which made decisions which were binding but subject to referral to arbitration or another method for a final decision. In adopting the adjudication board route FIDIC took the view that a binding decision was preferable to a recommendation because it was a continuation of the binding decisions made by the Engineer. It was also felt that as FIDIC contracts are used in many public projects internationally it would be placing undue pressure on public servants to expect them to act on recommendations rather than binding decisions.

As well as introducing adjudication into the FIDIC forms, the Orange Book incorporated a period for 'amicable settlement' of a dispute before a reference to arbitration could be made. This had originally been a feature of the 1987 Red Book (the widely used fourth edition); if the Engineer's decision did not resolve matters, the 1987 Red Book provided for the parties to attempt to reach agreement before commencing arbitration.

In adopting an amicable settlement stage the Orange Book provided for a three-tier process: adjudication, amicable settlement and, as a last resort, arbitration.

The adjudication board introduced by the Orange Book was called the Dispute Adjudication Board (DAB). The threefold process of DAB, amicable settlement and arbitration

*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

became a feature of the 1999 FIDIC forms published 4 years later and, 18 years on, is retained in the 2017 forms.

## 16.1 The Three-tier Process in the 1999 Contracts

Clause 20 of the 1999 Books provides for the parties to appoint a DAB (clause 20.2) either when a dispute arises (so an 'ad hoc' DAB, which is the default position in the 1999 Yellow and Silver Books) or at the outset of the project (a 'standing' DAB, the default position in the 1999 Red Book). Certain procedures apply to the nomination of DAB members in the event of the parties' failure to agree (clause 20.3). 'Dispute' is not a defined expression, but if a dispute arises, of any kind whatsoever, in connection with the Contract or execution of the works, including a dispute about any certificate, determination, instruction, opinion or valuation, then once the DAB has been appointed either party may refer the dispute to it for its decision (clause 20.4).

A strict timetable applies under clause 20.4. Unless the DAB proposes a longer period and the parties agree, the DAB must give its decision within 84 days after having the dispute referred to it (or, in the Yellow and Silver Books, of its members receiving an advance payment) and must give its reasons. Its decision is binding on the parties who are promptly to give effect to it unless and until it is revised either by agreement ('amicable settlement') or by an arbitral award.

However, as long as a party does so within 28 days of receiving the decision, he may give a notice to the other of his dissatisfaction with it (including his reasons for dissatisfaction) and in that event the DAB's decision will not be final.

The parties are then to try to reach agreement within 56 days after the dissatisfied party has given his notice, but if they do not agree then arbitration may be commenced on or after the 56th day, even if no attempt at reaching an agreement has been made (clause 20.5). If the DAB fails to give its decision within the 84 days, or as otherwise agreed, either party may within 28 days give a notice of dissatisfaction.

The first tier of the process set out in clause 20 is thus the DAB's decision; the second tier is the amicable settlement period following a notice of dissatisfaction with the decision; and the third tier is arbitration. Any dispute not settled amicably and in respect of which the DAB's decision has not become final is to be finally settled by arbitration, with the default position being International Chamber of Commerce (or ICC) arbitration before a panel of three arbitrators (clause 20.6).[1] In any such arbitration neither party is limited to the evidence or arguments previously put before the DAB, or to the reasons given in a notice of dissatisfaction, and the decision of the DAB may be used as evidence in the arbitration.

## 16.2 The 2017 Contracts

The 2017 contracts retain the basic three-tier structure of the 1999 forms but are more detailed and fill certain important gaps in the 1999 forms. There is also a greater emphasis on dispute avoidance and the DAB, now called the Dispute Avoidance/Adjudication Board (DAAB), to reflect this increased emphasis, has an enhanced role in this respect.

1 See Section 16.7.4 below.

### 16.2.1 Disputes

Unlike the 1999 contracts, 'Dispute' is a defined term in the three 2017 Books.[2] It means any situation in which:

(a) one party makes a claim against the other, which might be a 'Claim' as defined in the general conditions[3] or a matter to be determined by the Engineer/Employer's Representative, or otherwise;
(b) the other party, or the Engineer/Employer's Representative under clause 3.7.2/3.5.2 in making his determination, rejects the claim in whole or in part; and
(c) the first party, by giving a Notice of Dissatisfaction (NOD) with a determination under clause 3.7.5/3.5.5 or otherwise, does not acquiesce in this rejection.

There is a proviso added to the effect that a failure by the other party or Engineer to oppose or respond to the claim in whole or part may constitute a rejection if in the circumstances the DAAB or the arbitral tribunal deems it reasonable for it to do so.[4]

A 'Dispute' therefore may include a claim of any kind, not necessarily one within the definition of 'Claim', which has been rejected by the other party, or by the contract administrator in making a clause 3.7.2/3.5.2 determination, and in which rejection the claiming party has not acquiesced, either by giving a NOD or otherwise.[5]

### 16.2.2 Procedure for Obtaining the DAAB's Decision

Clause 21.1 provides that Disputes are to be decided by a DAAB in accordance with clause 21.4. Clause 21.4 then provides that a Dispute may be referred by either party to the DAAB for its decision. As described below, the 2017 contracts contain a new clause 21.3 which provides that, if the parties agree, they may jointly request the DAAB to provide assistance and/or informally discuss and attempt to resolve any issue or disagreement. However, this is not a mandatory step and either party may refer the Dispute whether or not any such assistance has been provided or informal discussions held.

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2 Clause 1.1.29 Yellow and Red Books/1.1.26 Silver Book.

3 See Section 15.1 above; a 'Claim' is a request or assertion by one party to the other for an entitlement or relief under any clause of the general conditions or otherwise in connection with or arising out of the Contract or the execution of the works.

4 The 2008 Gold Book also contains a definition of 'Dispute', in similar terms to the definition in the 2017 forms. Defining the term helps avoid the uncertainty that can otherwise arise (and does arise under the first editions) about the meaning of 'dispute' and when precisely a dispute arises so that a reference to the DAB may be made. The 2017 definition improves somewhat on the Gold Book definition (at clause 1.1.31) by spelling out that 'Claim' is to be broadly construed and by explicitly identifying the giving of a NOD as indicating non-acquiescence.

5 In the case of Claims of type (c) in clause 20.1 (entitlements or relief other than for additional time or money) a simplified procedure applies, as we have seen (Section 15.1 above). Rather than subjecting such claims (if not agreed) to the notice-and-detail requirements of clause 20.2, clause 20.1 provides for a reference directly to the Engineer/Employer's Representative under clause 3.7/3.5. In order to prevent a disagreement as to a type-(c) claim being referred immediately to a DAAB as a Dispute, however, the second paragraph of clause 20.1 expressly provides that a Dispute is not to be taken to have arisen where the other party or the contract administrator disagrees or is deemed to disagree with the requested entitlement or relief (the claiming party instead to give his notice referring the matter to the Engineer/Employer's Representative under clause 3.7/3.5).

### 16.2.3 Referring the Dispute: Clause 21.4.1

Clause 21.4.1 sets out the conditions for such a referral. It must be in writing, with copies to the other party and the Engineer/Employer's Representative; it must state that it is given under clause 21.4.1; it must set out the referring party's case relating to the Dispute; and, for a DAAB of three persons, it is deemed to have been received by the DAAB on the date it is received by its chairperson.

A special time bar applies where the subject matter of the Dispute was the subject of a clause 3.7/3.5 determination (as in a time or money claim). In that case the Dispute must be referred to the DAAB within 42 days of the giving or receiving (as the case may be) of the NOD; if it is not referred within this 42 days the NOD is deemed to have lapsed and no longer to be valid (sub-paragraph (a) of clause 21.4.1). No time bar applies in the 1999 contracts to the referral of any sort of dispute to the DAB.

Another significant difference from the 1999 contracts is that a reference to the DAAB, unless prohibited by law, is to be deemed to interrupt the running of any applicable statute of limitations or prescription period (clause 21.4.1 last paragraph). This provision gives some protection to the parties on a point which is quite often overlooked as they undertake the tiered disputes process. If possible and permitted by the applicable law, however, the claiming party would be well advised to try to agree a 'stand still' or similar with the other party, setting out clearly the terms on which time is to stop running and to re-start.

### 16.2.4 Parties' Obligations After Dispute Referred: Clause 21.4.2

Once the Dispute has been referred, both parties are promptly to make available to the DAAB all information, access to the site and appropriate facilities as the DAAB may require in order to make its decision. This is similar to the requirements of clause 20.4 in the 1999 contracts. As in those contracts, a reference to the DAAB should not interfere with progress. In the 2017 Books the parties are to continue to perform their obligations unless the Contract has already been abandoned or terminated; this is probably an improvement on the wording in clause 20.4 of the 1999 Books, in which the Contractor (only) is expressly to continue to proceed with the works (as opposed to his obligations generally) in accordance with the Contract.

### 16.2.5 The DAAB's Decision: Clause 21.4.3

Clause 21.4.3 of the 2017 Books provides that the DAAB is to complete and give its decision within 84 days after receiving the reference or whatever other period might be proposed by the Board and agreed by both parties. This wording differs from the wording of clause 20.4 of the 1999 Books, which provides for the DAB to give its decision within 84 days of receiving the reference (if Red Book) or (if Yellow and Silver Books) within 84 days of receiving the reference or the advance payment (see Section 16.1 above). A proviso applies to the effect that, if after the 84 days the DAAB members' invoices have not been paid, the decision need not be given until they are paid in full, when it must be given as soon as practicable.

The 2017 contracts provide expressly that the decision must be given in writing to both parties (with a copy to the Engineer in the Yellow and Red Books) and, like the 1999 editions, that it must be reasoned and state that it is given under the relevant sub-clause (21.4.3).

In both editions the DAB/DAAB's decision is binding on both parties, who are promptly to give effect to it: in the 1999 editions, unless and until it is revised either by amicable settlement or an arbitral award as set out in clauses 20.5 and 20.6; in the 2017 editions, whether or not a party gives a NOD with respect to the decision under clause 21.4.4 (see Section 16.2.6 below). The 2017 wording thus expressly provides that a NOD does not operate to relieve either party of the obligation to comply promptly with the DAAB's decision. In the 2017 Red and Yellow Books the Employer is also expressly responsible for the Engineer's compliance with the DAAB decision.

There are two new provisions in the 2017 Books to note here:

(i) The first is that where the DAAB's decision requires the payment of any money by one party to the other, (a) that sum will be due and payable immediately and without any certification or notice, subject however to the DAAB's power as part of its decision (b) to require the payee to provide appropriate security if the paying party so requests and there are reasonable grounds to believe that the payee will be unable to repay the relevant amount if the decision is subsequently reversed in an arbitration.[6] This is an important new protection which addresses a concern under the 1999 contracts that a party, typically the Employer, might be unable to recover any payment made pursuant to a DAB decision if he is successful in a subsequent arbitration.[7]

(ii) In some jurisdictions a dispute adjudication board, capable of making binding decisions, may not be clearly distinguished from an arbitration panel. The final paragraph of clause 21.4.3 thus expressly provides that DAAB proceedings are not arbitrations and DAAB members do not act as arbitrators.

### 16.2.6 Dissatisfaction with the DAAB's Decision: Clause 21.4.4

Although the DAAB's decision is binding on the parties it only becomes final if neither party gives a notice expressing his dissatisfaction with the decision; in this sense the DAAB's decision is interim. The 2017 contracts contain essentially the same timetable and procedure in clause 21.4.4 as in clause 20.4 of the 1999 editions but in more detail and with certain important differences.

- *The 1999 contracts*

Clause 20.4 of the 1999 contracts requires the dissatisfied party within 28 days after receiving the DAB's decision to give notice to the other party of his dissatisfaction. If the DAB should fail to give its decision within 84 days, or other agreed period, then either party may give a notice of dissatisfaction but must do so within 28 days after that period has expired. In either case, if no notice of dissatisfaction has been given within the relevant 28-day period then neither party may commence an arbitration of the dispute and, if the DAB has given its decision, it becomes final as well as binding.

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6 Clause 21.4.3, last paragraph. Note that clause 20.6 of the 2008 Gold Book, penultimate paragraph, provides for the DAB to require appropriate security where one party is to make a payment to the other, but does not provide for immediate payment subject to such security and does not make the decision to require it subject to a request by the payee supported by reasonable grounds.

7 In the 1999 Books Employers sometimes try to amend clause 20.4 either to delete the obligation to pay where a notice of dissatisfaction with the DAB's decision is given, or to require the provision of appropriate security as a condition of making any payment. Ad hoc amendments of this kind ought no longer to be necessary.

Where the decision has become final and binding because no notice of dissatisfaction has been given within 28 days, and one of the parties fails to comply with the decision, the other may refer that failure to arbitration without giving a notice of dissatisfaction.[8] The only other circumstance in which an arbitration may be begun without a notice of dissatisfaction is where there is no DAB in place after a dispute has arisen, whether because the DAB's appointment has expired or for some other reason.[9]

- *The 2017 contracts*

Clause 21.4.4 of the 2017 contracts also provides for the dissatisfied party to notify his dissatisfaction, by giving a NOD to the other party (with a copy to the DAAB, and in the Red and Yellow Books to the Engineer), which states in terms that it is a 'Notice of Dissatisfaction with the DAAB's Decision' and, like the 1999 forms, setting out the matter in dispute and the reasons for dissatisfaction. The NOD must also be given within 28 days of receiving the DAAB's decision. If the DAAB should fail to give its decision within time under clause 21.4.3 then either party may give a NOD but must do so within 28 days after the clause 21.4.3 period has expired. In either case, if no NOD has been given within the relevant 28-day period neither of the parties may commence an arbitration in relation to the Dispute and, if the DAAB has given its decision, it becomes final as well as binding.

As with the 1999 forms, the 2017 forms provide for certain circumstances in which a party may be entitled to begin an arbitration even if no NOD in respect of a DAAB decision has been given. Subject to those exceptions, however,[10] clause 21.4.4, second paragraph, expressly provides that neither party shall be entitled to commence arbitration of a Dispute unless a NOD in respect of that Dispute has been given in accordance with clause 21.4.4; giving such a NOD is thus, with those exceptions, a condition precedent to the right to arbitrate.[11]

The 2017 contracts allow for the following three exceptions.

(i) The first is where a determination by the Engineer/Employer's Representative has become final and binding under clause 3.7/3.5 or the parties have reached agreement under that clause but a party fails to comply with either the determination or the agreement. In that event the other party may refer the failure directly to arbitration under clause 3.7.5/3.5.5 without giving a NOD, and the arbitration will be treated as if it were the enforcement of a DAAB decision under clause 21.7.[12]

(ii) The second situation is where a party has failed to comply with the DAAB's decision, whether binding or final and binding.[13] In that event the other party may refer the failure directly to arbitration without first obtaining another DAAB decision or waiting until the amicable settlement period under clause 21.5 has expired.

(iii) The third situation is where there is no DAAB in place or is being constituted after a Dispute has arisen, whether this is because the DAAB's appointment has expired

8 Clause 20.7.
9 Clause 20.8.
10 See next paragraph.
11 This is the position under the 1999 contracts (clause 20.4, sixth paragraph), where the exceptions are failure to comply with a DAB decision (clause 20.7) and expiry of the DAB's appointment (clause 20.8).
12 Clause 3.7/3.5, last paragraph; and see Section 16.8 below. The amicable settlement period under clause 21.5 does not apply in this case: clause 21.7, first paragraph.
13 Clause 21.7.

or for another reason. In that event the other party may refer the Dispute directly to arbitration without first obtaining a DAAB decision or waiting until the amicable settlement period under clause 21.5 has expired.[14]

There are thus four paths to arbitration under the 2017 forms:

(i) a NOD has been given in time either in respect of a DAAB decision or where the DAAB has failed to give its decision in time (followed by a period for settlement of the Dispute by agreement: see Section 16.6 below);
(ii) there has been a failure to comply with an agreement or a final and binding determination of the Engineer/Employer's Representative;
(iii) there has been a failure to comply with a DAAB decision; or
(iv) no DAAB is in place.

The final paragraph of clause 21.4.4 contains a novel provision enabling the dissatisfied party to specify within his NOD a part or parts of the DAAB's decision with which he is dissatisfied. The relevant parts of the decision, and those affected by or dependent on them, are then to be treated as severable from the remainder, which then becomes final and binding as if no NOD had been given. This is a useful provision which avoids uncertainty about the ability of the dissatisfied party to object to part only of the decision and thus to take only that part further to amicable settlement or ultimately arbitration.

## 16.3 Appointment of the DAAB

As mentioned above, the 1999 contracts differ as to the stage at which a DAB might be appointed. In the 1999 Red Book the default position is that the Board is a standing one appointed at the outset of the project, by a date stated in the Appendix to Tender.[15] In the 1999 Yellow and Silver Books it is an ad hoc Board, appointed 28 days after a party notifies the other of his intention to refer a dispute.[16] FIDIC took the view that the additional expense of a standing Board was justified in the case of the Red Book because it would be needed to deal with disputes arising from construction works taking place on site, whereas in the case of the Yellow and Silver Books it was thought that, since a lot of the work under those forms involves design and fabrication activities off site, the likelihood of disputes was less. This has unfortunately not turned out to be the case.

Despite their potential additional expense, standing Boards are likely to be more familiar with the project and to be able to act more quickly than an ad hoc Board, which will need time to familiarise itself with the project (for which time it will also charge). These factors weighed in favour of making a standing DAAB the default position in all the 2017 contracts, but a decisive factor was the enhanced role intended for the DAAB of helping to avoid disputes or to resolve them at an early stage; this greater emphasis on dispute avoidance pointed squarely to having a standing Board as the norm for all three of the Books.[17]

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14 Clause 21.8.
15 Clause 20.2.
16 Clause 20.2.
17 This is not to say a standing Board is obligatory. Just as the 1999 Red Book guidance provides alternative wording if an ad hoc Board is desired (most often for reasons of cost), so the Notes to the 2017 Books provide similar alternative wording.

Clause 21.1 of the 2017 contracts thus requires the parties jointly to appoint the member or members of the DAAB within the time stated in the Contract Data (or within 28 days if not so stated) after the date when the Contractor receives the Letter of Acceptance (Red and Yellow Books) or after the date when both parties have signed the Contract Agreement (Silver Book).

The clause also provides for the remuneration of the DAAB,[18] replacement of a DAAB member, termination of an appointment and for the term of the DAAB including each member's appointment.

### 16.3.1 Sole Member or Three

The DAAB is to comprise either one member or three members, depending on what is stated in the Contract Data; in default, and if the parties do not otherwise agree, the DAAB is to comprise three members. In practice in projects of any size or complexity three members are usually appointed. Clause 21.1 provides that they should be 'suitably qualified'. No guidance as such is provided on the qualifications for DAAB members, but whether a member is suitably qualified or not will depend on the particular expertise needed for the project and the professional qualifications and experience of the individual(s) concerned, among other factors. A suitably qualified individual or individuals is/are to be selected from a list included in the Contract Data. If the DAAB comprises three members each party selects one for the agreement of the other and the parties then consult both those members to agree the third member, who will act as chairperson. It is important, as the FIDIC Guidance emphasises, that the parties should be confident in whoever is appointed, so careful attention needs to be paid at the outset to identifying suitable individuals to be named in the list from which the DAAB is to be chosen.

Once the sole member or three members has or have been selected they must sign a DAAB Agreement with each of the parties. This is a tripartite contract between the sole member/each of the three members and each of the parties. The DAAB is constituted on the date when the Agreement is signed.

The FIDIC Guidance recommends that the Agreement be based on an example form, to be completed as appropriate depending on whether a sole or three members is or are appointed, found in the 'Sample Forms' section at the back of each Book. The form incorporates by reference the General Conditions of DAAB Agreement[19] and its associated appendix, the DAAB Procedural Rules; these documents are to be found as the Appendix to the general conditions of contract in each Book.[20]

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18 The terms of remuneration are to be agreed when agreeing the terms of the DAAB Agreement. Each party is to be responsible for paying one half of the remuneration agreed, a provision intended to avoid any appearance of bias which might otherwise exist if the DAAB were paid by one party (and which was the source of the perceived lack of independence of the Engineer in making pre-arbitral decisions).

19 In some print-runs of the 2017 Books these General Conditions are called 'General Conditions of Dispute Avoidance/Adjudication Agreement'. FIDIC has issued an Erratum replacing this description by 'General Conditions of DAAB Agreement' (and replacing 'DAA Agreement' by 'DAAB Agreement').

20 'DAAB Agreement' is defined in the 2017 Books (clause 1.1.23 Red and Yellow Books/1.1.20 Silver Book) to mean the agreement signed or deemed to have been signed by both parties and the sole member or each of the three members of the DAAB in accordance with clause 21.1 or 21.2, incorporating by reference the General Conditions of DAAB Agreement contained in the Appendix to the general conditions of contract, with whatever amendments are agreed.

### 16.3.2 The DAAB Agreement and DAAB Procedural Rules

The 1999 contracts include as an appendix to the general conditions terms for a Dispute Adjudication Agreement and a set of DAB procedural rules, but their 2017 counterparts are far more detailed and cover more ground.

The warranties provided by each DAAB member in the DAAB Agreement are broadly the same as those in the 1999 Dispute Adjudication Agreement, covering both the independence of the member and his or her competence, but the 2017 contracts define (in clause 3.1) more precisely the member's obligation to disclose any fact or circumstance after the signing of the Agreement which might call into question his or her independence or impartiality and/or be or appear to be inconsistent with the warranty given as to independence in clause 3.1. That warranty, in essentially the same terms as clause 3 of the DAB Agreement in the 1999 contracts, is to the effect that the DAAB member is and will remain at all times during the term of the DAAB impartial and independent of the Employer, Contractor, Employer's personnel and Contractor's personnel as well as in accordance with a new clause 4.1.

Clause 4.1 expands on the warranties given in clause 3 by setting out an extensive list of requirements going to independence and impartiality, beginning with the requirement that the DAAB member is to have no financial interest in the Contract or the project except in respect of payment for services under the Agreement and is to have no interest of any kind in the parties or their respective personnel. Similar obligations are imposed on DAB members in clause 4 of the 1999 version of the Agreement. One significant difference is that whereas the 1999 Agreement requires the DAB member not to have had any previous employment as a consultant or otherwise by the parties or the Engineer, except as disclosed before signing the Agreement, the 2017 version, by clause 4, provides for the DAAB member not to have been employed as a consultant or otherwise by the parties, or their respective personnel, in the ten years before signing the Agreement.

In both editions the Agreement provides for the confidentiality of the DAB/DAAB process but this is set out in more detail in clause 7 of the 2017 version, and covers both the DAAB member, the parties and their respective personnel. Certain exceptions to the confidentiality obligation are provided for in a new clause 7.3 (in particular where the relevant information was already in the relevant person's possession, or becomes generally available, or has been lawfully obtained from a third party not bound by any confidentiality obligation) and provision for information to be supplied to a replacement of a DAAB member is made by a new clause 7.4.

The parties' general obligations under the Agreement are stated in similar terms in both editions (clause 5 in the 1999 edition and clause 6 in the 2017) but there is a new clause 8 setting out separately and in somewhat more detail the parties' undertakings to each other and certain mutual indemnities. Of particular importance are the detailed provisions as to resignation and termination in clause 10 of the 2017 Agreement, which have no counterpart in the 1999 Agreement. A new clause 11 of the 2017 Agreement also provides for challenges to a DAAB member, by reference to rules 10 and 11 in the DAAB Rules, on the grounds of lack of independence or impartiality or otherwise. DAAB Rules 10 and 11 set out an objection procedure and a challenge procedure which provides for challenges to be decided by the International Chamber of Commerce and administered

by the ICC International Centre for ADR.[21] Disputes arising in connection with the DAAB Agreement (as opposed to challenges to DAAB members) are to be referred to ICC arbitration, just as they are under the 1999 DAB Agreement, except that the new clause 12 provides for use of the Expedited Procedure introduced in 2017.

The 2017 Procedural Rules run to nearly eight pages whereas the DAB Rules in the 1999 editions barely exceed a single page. This is because the 1999 Rules deal shortly with the powers and duties of the DAB in handling disputes, whereas the DAAB Rules cover meetings and site visits for the standing Board (rule 3), rules for communications and provision of documentation (rule 4) and in substantially more detail the powers of the DAAB (rule 5), the holding of hearings (rule 7) and the steps to be taken in and after reaching and giving its decision (rule 8). There are also rules providing for what is to happen in the event of a DAAB member's resignation or termination of the DAAB Agreement under clause 10 (rule 9) and, as noted above, an objection and challenge procedure (rules 10 and 11).

Compliance with the Procedural Rules may be likely to add significantly to the costs of the standing Board, particularly in relation to the requirement to meet regularly with the parties and/or visit the site at intervals normally of between 70 and 140 days (rule 3.3). The parties may, however, modify the Rules to accommodate their particular needs, but any changes need to keep in mind the overall objectives of the process stated in rule 1, which are to facilitate dispute avoidance and achieve the expeditious, efficient and cost effective resolution of any dispute that arises.

## 16.4 Failure to Appoint DAAB Members

One of the pitfalls of a dispute adjudication board process is the potential for one party to cause delay by not cooperating in the appointment of the board members or any replacement. The 1999 contracts deal with this in clause 20.3 by providing for an appointing entity or official, named in the Appendix to Tender (Red and Yellow Books) or Particular Conditions (Silver Book), to make the necessary appointment. This is essentially the same as in clause 21.2 of the 2017 contracts, but the latter provides expressly that a member appointed by the relevant entity is to be deemed to have signed and be bound by a DAAB Agreement providing for his fees and for the law governing the Agreement to be that of the Contract.

## 16.5 Avoidance of Disputes

The 2008 Gold Book introduced for the first time in the FIDIC contracts a clause (clause 20.5) which provided for the DAB, if the parties so agreed, to give assistance and/or informally to discuss and attempt to resolve any disagreement that might have arisen between them during the performance of the Contract. This lead was followed in the

21 The ICC International Centre for ADR administers all non-arbitration proceedings filed at the ICC, including mediations and dispute board proceedings under the ICC Dispute Board Rules. FIDIC took the view that the ICC Centre had the necessary industry, legal and procedural expertise to take on the important role of administering challenges to DAAB members.

2017 contracts by a similar clause (clause 21.3) which, however, goes a bit beyond the Gold Book by providing for the DAAB positively to invite the parties to make a joint request for it to assist if it becomes aware of any issue or disagreement. The request to the DAAB can be made at any time except when the Engineer or Employer's Representative is carrying out his duties under clause 3.7/3.5 as to agreement or determination of a matter, unless the parties agree otherwise. In both the Gold Book and the 2017 contracts the parties are not bound to act on any advice given and the DAAB is not bound in any future dispute resolution process or decision by any views or advice given during the informal assistance process.

The availability of assistance of this kind is an important part of the new emphasis on dispute avoidance in the 2017 Books. It represents a valuable addition to the DAAB's function.

There could, however, be a tension between the DAAB's dual roles of informal adviser and decision-maker. If DAAB members express views informally about a dispute which subsequently goes to the same Board for a decision, perhaps after a fuller statement of each party's case, there might be a perception that the DAAB will not really be able to apply a fresh and unprejudiced mind to the issues. A DAAB decision which appears merely to confirm an earlier informal view without setting out the arguments advanced or its reasons fully enough may encourage such a perception. Compliance with the Procedural Rules (in particular rules 6 and 7) ought not to result in decisions of that kind. It should also be borne in mind that the DAAB is not an arbitral tribunal and the same rules and constraints as to natural justice and otherwise do not apply to it. The availability of informal assistance is a feature of the ICC Dispute Board Rules[22] and others[23] and it is difficult to see how the important aim of dispute avoidance can be advanced without giving the DAAB a power to provide informal assistance.

## 16.6 Amicable Settlement

As we have seen, both editions of the FIDIC contracts require a party who is dissatisfied with a DAB or DAAB decision on a dispute to give notice of his dissatisfaction before he is able to commence an arbitration in relation to it.[24] In both editions the giving of this notice triggers the beginning of a period during which the parties are intended to try to reach agreement.

By clause 21.5 in the 2017 contracts the parties 'shall attempt to settle the Dispute amicably before the commencement of arbitration'; the amicable settlement period is thus mandatory before arbitration may be commenced. It is not, however, necessary, before arbitration may be commenced, for the parties actually to have attempted to settle the Dispute. Unless both parties agree otherwise, arbitration may be commenced on or after the 28th day after the day on which the relevant NOD was given, even if no attempt at amicable settlement has been made.

The amicable settlement period has sometimes been described as a cooling off period before any arbitration. The FIDIC Guidance, however, suggests the parties actively engage with each other with a view to settling the Dispute and that mediation might

22 ICC Dispute Board Rules 2015, Article 16.

23 E.g. the Japan International Cooperation Agency Dispute Board Manual 2012, Article 9.

24 See Section 16.2.6 above.

be one among a number of possibilities for such engagement. Mediation is a feature of many tiered dispute resolution clauses and could be worked into the amicable settlement stage, either by adopting the example mediation rules given in the FIDIC Guidance or using rules such as the ICC Mediation Rules 2017.

Clause 21.5 of the 2017 contracts provides for amicable settlement in essentially the same terms as clause 20.5 in the 1999 contracts. The only significant difference is that whereas in the 1999 forms the dissatisfied party has to wait 56 days from the giving of the notice of dissatisfaction, in the 2017 forms this period has been shortened to 28 days; in both cases, as noted above, irrespective of whether any attempt at amicable settlement has actually been made. The Gold Book had already reduced the period to 28 days in 2008. This reduction in the time for amicable settlement reflected the view expressed by users of the contracts that 56 days was too long and could be used as a delaying tactic; if there was a genuine prospect of agreement and the parties needed longer than the 28 days they could always agree an extension under clause 21.5, which (like clause 20.5 in the 1999 forms) expressly provides for this. Extending time might be required if, for example, the parties decide to mediate.

## 16.7 Arbitration

Clause 21.6 of the 2017 contracts provides for arbitration in any of the following four circumstances, described in Section 16.2.6 above[25]:

(i) a NOD has been given in time either in respect of a DAAB decision or where the DAAB has failed to give its decision in time (clause 21.4.4) followed by the amicable settlement period under clause 21.5;
(ii) there has been a failure to comply with an agreement or a final and binding determination of the Engineer/Employer's Representative (clause 3.7.5/3.5.5);
(iii) there has been a failure to comply with a DAAB decision (clause 21.7);
(iv) no DAAB is in place (clause 21.8).

Arbitration is the prescribed third and final stage of the three-tier process set out in clause 21, as opposed to litigation in a local court.

### 16.7.1 Party Commencing Arbitration

As we have seen,[26] clause 21.4.4 provides that neither party shall be entitled to commence arbitration of a Dispute unless a NOD in respect of it has been duly given, or unless one or other of situations (ii)–(iv) above apply. This wording does not appear to restrict the right to begin an arbitration in respect of a Dispute to the dissatisfied party alone, but appears to enable the other party, who did not give a NOD, to do so as well. This also appears to be the position under the 1999 editions (see clause 20.4, sixth

25 The clause does so by providing for any Dispute in respect of which the DAAB's decision, if any, has not become final and binding to be settled by international arbitration, unless settled amicably and subject either to (a) a NOD in respect of the DAAB decision's being given in accordance with clause 21.4.4 or (b) any of situations (ii) to (iv) described below applying. This wording follows, mutatis mutandis, that of clause 20.6 in the 1999 contracts.

26 Section 16.2.6 above.

paragraph). In practice the dissatisfied party giving the NOD is most likely to be the one commencing an arbitration but the other might, in circumstances for example in which the party giving the NOD delays in commencing an arbitration, wish to seek declaratory or other relief in order to remove uncertainty which the delay creates.

### 16.7.2 Time for Commencing an Arbitration

No time is prescribed for the commencement of an arbitration after a NOD has been given. In the pre-release Yellow Book clause 21.4.4 required arbitration to be commenced within 182 days after the NOD had been given or received, failing which it was to be deemed to have lapsed. But this was thought likely to generate arbitrations rather than discouraging them by putting pressure on the relevant party to avoid having his NOD lapse; having a time limit was therefore dropped.

Arbitration may be commenced at any time before or after completion of the works: clause 26.1, fifth paragraph. Thus there is no need to wait until the end of the project before referring a Dispute to arbitration; and the fact that an arbitration has begun during the progress of the works expressly does not alter the obligations of the parties, the Engineer (if Red or Yellow Book) or the DAAB. Clause 20.6 of the 1999 contracts contains a similar provision.

### 16.7.3 Choice of Arbitration

FIDIC has had a long-standing preference for arbitration. The reasons for this are essentially the same as those that apply in the case of any international commercial contract. Perhaps the four principal reasons are, in summary, as follows.

(i) First, arbitral awards as opposed to local court judgments are more readily enforceable across borders. The New York Convention 1958[27] obliges the courts of some 159 signatory states to recognise and enforce arbitral awards subject to certain limited exceptions, such as lack of jurisdiction or capacity. There is no comparable multilateral treaty in the case of court judgments. The New York Convention has been justly described as the cornerstone of international arbitration.

(ii) The parties may agree a place or seat of arbitration which is neutral, in the sense that it is in neither of the parties' own countries or otherwise connected with either. The FIDIC Guidance rightly draws attention to the importance of considering carefully the place of arbitration since it will normally determine the law applying to the process, covering the extent to which the local courts might intervene and their oversight of the procedure, including any rights of challenge or appeal. The legal place of arbitration is to be contrasted with the venue where hearings might take place. A place of arbitration should be agreed whose procedural law is modern and sympathetic to arbitration.[28]

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27 The *Convention on the Recognition and Enforcement of Foreign Arbitral Awards* was adopted by a United Nations conference on 10 June 1958 and came into force on 7 June 1959.

28 The Model Law published by the United Nations Commission on International Trade Law (UNCITRAL) forms a basis of the procedural arbitration law of many countries; in England, for example, the Arbitration Act 1996.

(iii) The parties may choose their own tribunal as opposed to leaving it to the administrative decision of a local court. The tribunal might be selected by using the services of an agreed institution administering the arbitration, or directly by the parties agreeing themselves the individuals to sit on the tribunal. In the former case, of so-called institutional arbitration, such as those administered by the ICC or the London Court of International Arbitration (LCIA), among many others, each party typically nominates an arbitrator for confirmation by the institution with a third, after agreement and confirmation, acting as chair. In the latter case, of 'ad hoc' arbitration, the parties and tribunal run the arbitration themselves, normally using recognised rules, such as those published by UNCITRAL.[29] The FIDIC Guidance suggests that if ad hoc arbitration is preferred (to the default position of ICC (institutional) arbitration) the parties nevertheless designate in the Contract Data an institution to appoint the arbitrators.

(iv) Arbitrations are in general private whereas court proceedings are in general public. This can be a matter of considerable importance where commercially sensitive matters are likely to arise but may be preferred in any case. The basis for the privacy of arbitrations is not clear, some jurisdictions treating an obligation of confidentiality in the proceedings as an implied term of the underlying arbitration agreement while others adopt a different route. It is also not an unqualified privacy. In arbitrations taking place in London, for example, the identity of the parties and the nature of the dispute may be disclosed in the course of court challenges or appeals from arbitrators.

### 16.7.4 ICC Arbitration

The default position under both editions of the FIDIC contracts is that ICC arbitration shall apply. Unless the parties otherwise agree, clause 21.6 in the 2017 contracts provides for ICC arbitration with one or three arbitrators appointed in accordance with the ICC Rules.

FIDIC's relationship with the ICC is long-standing and it is probably right to say that the ICC, based in Paris, is the world's most well-known arbitral institution, notwithstanding the rise of several alternative institutions both in Europe and elsewhere. The ICC's arbitration rules are clear and flexible[30] and have served as a model for the rules of other institutions.[31] ICC arbitration is, however, sometimes said to be too expensive for all but the largest disputes, requiring substantial fees based on a percentage of the amounts in dispute. The FIDIC Guidance makes it clear that ICC arbitration is not obligatory, but advises that any rules chosen should be compatible with the provisions of clause 21 and with the other elements to be set out in the Contract Data.

Popular alternatives to the ICC are the London Court of International Arbitration (or LCIA) and, in the Asia Pacific region, the Singapore International Arbitration Centre (SIAC) and the Hong Kong International Arbitration Centre (HKIAC).

29 The Commission is based in Vienna and the most recent edition of the UNCITRAL Rules was published in 2013.

30 The current Rules were published in 2012 and amended in 2017. They reflect good international practice and address, for example, interim and emergency measures and multi-party disputes.

31 See, for example, the China International Economic and Trade Arbitration Commission (CIETAC) Arbitration Rules 2015.

These institutions have well-established international reputations, supported by an arbitration-friendly procedural law and respected local courts.[32]

### 16.7.5 The Tribunal's Powers

In both editions of the contracts the arbitral tribunal is given wide powers to decide the dispute. The tribunal's function is not to review the DAAB or DAB's decision with a view to identifying errors or grounds for overturning it, if any, although the decision may be admissible in evidence in the arbitration, but to hear the matter afresh. Thus clause 21.6 in the 2017 and clause 20.6 in the 1999 contracts expressly provide that neither party is to be limited to the evidence or arguments previously put before the DAAB or DAB, or to the reasons for dissatisfaction given in a NOD or notice of dissatisfaction. A well-reasoned DAAB/DAB decision may carry considerable weight with the tribunal, but it will make its own decision on the evidence before it. Part of that evidence may well include that of the Engineer or Employer's Representative[33]; but DAAB/DAB members will not give evidence.[34]

The tribunal's powers under the 2017 contracts include expressly the power to open up, review and revise any certificate, determination (other than a final and binding determination), instruction, opinion or valuation of the Engineer (Employer or Employer's Representative in the 2017 Silver Book) and any decision of the DAAB (other than a final and binding decision) relevant to the Dispute. This wording is very similar in clause 20.6 of the 1999 contracts, the 2017 contracts however stating expressly that any DAAB decision which is to be reviewed or revised should not be a final and binding one. The power to open up any non-final and binding decision of the DAAB relevant to the Dispute enables the tribunal to review and revise decisions of the DAAB other than the particular decision the subject of the NOD, as long as it is relevant.

A question that often arises in arbitrations is the extent to which the tribunal can hear any counterclaims advanced by the responding party. The Contractor may, for example, claim payment under a certificate and the Employer seek to reduce or extinguish the claim by reference to cross claims relating to defects. Since the power of the tribunal derives entirely from the arbitration agreement between the parties a question may arise as to the tribunal's jurisdiction or competence to entertain the counterclaim.

Most arbitration rules, including the ICC's, provide for counterclaims. Whether the tribunal has jurisdiction nevertheless to consider them will depend on a combination of the governing and procedural law, since both substantive and procedural questions will typically arise. The governing law might, for example, recognise a defence of set-off[35] in relation to a monetary claim. In a London-sited arbitration the tribunal would normally be able to consider a cross-claim amounting to set-off in deciding what sum, if any, was

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32 The Queen Mary University of London 2018 International Arbitration Survey found that the five most preferred seats of arbitration are London, Paris, Singapore, Hong Kong and Geneva. Consistently with previous surveys, the five most preferred arbitral institutions are the ICC, LCIA, SIAC, HKIAC and the Stockholm Chamber of Commerce.

33 Clause 21.6, second paragraph/clause 20.6 1999 contracts, second paragraph.

34 Clause 8 of the General Conditions of DAAB Agreement 2017; clause 5 of the 1999 General Conditions of Dispute Adjudication Agreement.

35 A set off might be available where the respondent's cross-claim arises from the same transaction or a closely related transaction as a debt owed.

due to the claimant. In other cases the issue might be treated as a matter of construction. In one recent English case, for example, the Commercial Court had to consider whether both claims and counterclaims arising from a single set of facts and giving rise to a balance of accounts were included within notices commencing arbitration. It was held that a notice referring to 'claims' and to 'all disputes arising under the contract' had the effect of referring both claims and counterclaims to arbitration.[36]

### 16.7.6 Payment of Sums Awarded

Clause 21.6 in the 2017 contracts removes a doubt that might arise under the 1999 contracts as to the effect of an award requiring payment of an amount by one party to the other, in particular whether it is necessary for the payee to make a claim for the amount awarded or to give any further notice. The last paragraph in clause 21.6 makes it clear that if an award requires a payment to be made by one party to the other the relevant amount becomes immediately due and payable without any further certification or notice.[37]

### 16.7.7 Costs

Another new provision in clause 21.6 is that the tribunal is expressly empowered in dealing with the costs of the arbitration to take into account the extent, if any, to which a party has failed to cooperate with the other in constituting a DAAB under clauses 21.1 and/or 21.2; for example, where a party fails to cooperate in agreeing the appointment of a replacement member. The DAAB process is thus supported by a new power to penalise a non-cooperating party in costs.

## 16.8 Failure to Comply with the DAAB's Decision

An adjudication board is not an arbitral tribunal and its decisions are not enforceable as such. To support the DAAB process the 2017 FIDIC contracts provide, in clause 21.7, for steps the other party may take to enforce a DAAB decision where a party fails to comply with it. Clause 20.9 of the 1999 contracts also provides for such steps, but does so in a way which has given rise to considerable difficulty where the DAB's decision has not become final.

As we have seen, all DAB (or DAAB) decisions are binding and are to be given prompt effect to,[38] but only become final as well as binding if no notice of dissatisfaction is given under clause 20.4 (or NOD under clause 21.4.4). Where a DAB decision has become final and binding but a party has failed to comply with it, clause 20.7 of the 1999 contracts gives the other party the right to refer that failure to arbitration, without obtaining another DAB decision or waiting for the amicable settlement period to expire. Although this is not explicit, the clause contemplates that the arbitral tribunal will then enforce the

36 *Glencore International AG v PT Tera Logistic Indonesia* [2016] EWHC 82 (Comm).

37 The position with respect to arbitral awards of money is therefore similar to DAAB decisions requiring payment by one party to the other; these are payable immediately, subject to the power to order security under clause 21.4.3(ii).

38 Clause 20.4, fourth paragraph, 1999 contracts; 21.4.3, fourth paragraph, 2017 contracts.

decision by whatever appropriate means are available to it; for example, by a summary or expedited procedure, or by an interim or provisional measure or award.

Difficulty has arisen where the decision has not become final. There is no provision in clause 20.7 for the enforcement of such a decision: only final decisions are covered by the clause. As an arbitration of the dispute to which the DAB decision relates might take years to conclude, this gap could result in serious practical difficulties: to a Contractor, for example, entitled to a substantial sum. In one particularly well-known case the party seeking enforcement sought to rely on the obligation of prompt compliance with a non-final DAB decision under clause 20.4. The case illustrates the difficulties that have arisen under the 1999 forms.

In *PT Perusahaan Gas Negara (Persero) TBK v CRW Joint Operation* [2015] SGCA 30 a DAB decided that the Employer (PGN) under a Red Book-based contract for the design and installation of a natural gas pipeline in Indonesia should pay the Contractor (CRW) some US$17 million in respect of variations. In face of PGN's non-compliance, CRW in 2009 began an arbitration in Singapore relying on clause 20.4 to claim prompt payment of that amount. The arbitrators agreed and issued a final award to that effect. When CRW sought to enforce the award the Singapore court declined on the basis that the arbitrators had exceeded their jurisdiction; a result confirmed on appeal, when the Singapore Court of Appeal (in 2011) held that referring only the issue of enforceability of the DAB decision to the arbitrators, as opposed to the merits of the underlying dispute, was a breach of the agreed arbitral procedure. In the same year CRW commenced a second arbitration seeking a final award on the merits of the dispute and a partial or interim award to enforce the DAB decision pending final resolution of the dispute. The arbitrators obliged, issuing an interim award ordering PRN to make prompt payment. Subsequently, CRW sought and obtained enforcement of that award, which PGN applied unsuccessfully to set aside. It then appealed.

In 2015 the Singapore Court of Appeal gave judgment dismissing the appeal. The Court held that clause 20.4 of the Red Book general conditions (unamended by the parties) imposed a distinct obligation promptly to comply with a DAB decision which might be referred to arbitration without invoking clauses 20.4 or 20.5. This obligation was quite separate from the merits of the DAB decision, which might subsequently be revised by the arbitrators. If the receiving party were restricted to treating the paying party's non-compliance as a breach of contract that gave rise only to an entitlement to damages which must be pursued before the available domestic courts then the purpose of clause 20.4 would be completely undermined. In the Court's view clause 20.4 served the vital objective of safeguarding cash-flow in the construction industry, especially that of the Contractor who was usually the receiving party.

After several years and four decisions of the Singapore courts, the Contractor thus eventually prevailed. The proceedings attracted considerable comment and in April 2013 (before the second (2015) Singapore Court of Appeal decision was handed down) FIDIC issued an important guidance note to users of the 1999 contracts.[39] Its aim was to make explicit FIDIC's intention that DAB decisions which were binding but not final should, if not complied with, be capable of being referred to arbitration under clause 20.6 without another DAB decision or waiting for the amicable settlement period to expire. FIDIC noted that clause 20.9 of the 2008 Gold Book had made that intention

39 *FIDIC Guidance Memorandum to Users of the 1999 Conditions of Contract*, dated 1 April 2013.

clear by providing explicitly for a reference to arbitration whether the relevant DAB decision was binding or final and binding. The guidance note observed that a substantial number of arbitral tribunals had found the position unclear and referred specifically to the *Persero* case. The note concluded by recommending that users amend clause 20.7 to provide for enforcement of non-final DAB decisions, using wording similar to clause 20.9 in the Gold Book.

The 2017 contracts improve on the 1999 forms (and on the Gold Book wording) by providing not only for the referral to arbitration of a failure to comply with any non-final DAAB decision (without obtaining a second decision or waiting for the amicable settlement period to expire) but explicitly for the enforcement of the decision. Clause 21.7 gives the tribunal power by way of a summary or other expedited procedure to order enforcement by an interim or provisional measure or by making an award, whatever might be appropriate under the applicable law or otherwise.

Two further provisions in clause 21.7 also provide greater clarity: first, any such interim or provisional measure or award is to be subject to the express reservation that the parties' rights as to the merits of the Dispute should be reserved until resolved by an award; and secondly, any interim or provisional measure or award enforcing a decision of the DAAB which a party has not complied with, whether or not final, may also include an order or award of damages or other relief. The other party may thus obtain compensation or other relief in respect of the non-compliance.

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*The 2017 FIDIC Contracts,* First Edition. William Godwin QC.

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