

# Clause 4

## Summary

Clause 4 sets out various obligations which fall on the Contractor under the Contract and which cannot easily be classified elsewhere. The obligations under Clause 4 are of a wide range covering 24 different topics. Sub-Clause 4.1 sets out the Contractor's general obligation to carry out his duties in accordance with the contract.

Clause 4 of the FIDIC Red Book 1999 amalgamates various Contractor obligations under one provision. However this Clause 4 is not exclusive as there are also other Contractor obligations scattered throughout the Contract. Other significant general obligations which could equally have been included in Clause 4 (and which should be read in conjunction with this Clause 4) are as follows:

- Sub-Clause 1.3 [*Communications*]
- Sub-Clause 1.7 [*Assignment*]
- Sub-Clause 1.8 [*Care and Supply of Documents*]
- Sub-Clause 1.9 [*Delayed Drawings or Instructions*]
- Sub-Clause 1.10 [*Employer's Use of Contractor's Documents*]
- Sub-Clause 1.12 [*Confidential Details*]
- Sub-Clause 1.13 [*Compliance with Laws*]
- Clause 6 [*Staff and Labour*]
- Clause 7 [*Plant, Materials and Workmanship*]
- Sub-Clause 8.2 [*Time for Completion*]
- Sub-Clause 8.3 [*Programme*]

## Origin of clause

The Contractor obligations were previously split across many clauses under the Red Book 4<sup>th</sup> Edition.<sup>1</sup> Part of Sub-Clause 4.1 is found at Sub-Clauses 8.1 and 8.2 of the Red Book 4<sup>th</sup> Edition. The Contractor obligations found at Sub-Clauses 4.2 to 4.18 and 4.23 to 4.24 of the Red Book 1999 were previously found within the old clauses 4, 10, 11, 12, 15, 17, 19, 27, 29, 30, 31, 32, 33, 36, 42, 54 of the 4<sup>th</sup> Edition.

Sub-clauses 4.19 [*Electricity, Water and Gas*], 4.20 [*Employer's Equipment and Free Issue Material*] and 4.21 [*Progress Reports*] are new concepts first introduced in the FIDIC 1999 Edition.

## Cross-references

Reference to Clause 4 is found in the following clauses:

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<sup>1</sup> Part of the obligation was dealt with in sub-clauses 7.2, 8.1, 13.1 and 14.1.

- Sub-Clause 1.1.2.5 [Definitions] “Contractor’s Representative”
- Sub-Clause 1.1.6.6 [Definitions] “Performance Security”
- Sub-Clause 2.3 [Employer’s Personnel]
- Sub-Clause 2.5 [Employer’s Claims]
- Sub-Clause 9.1 [Contractor’s Obligations]
- Sub-Clause 13.2 [Value Engineering]
- Sub-Clause 14.2 [Advance Payment]
- Sub-Clause 14.3 [Application for Interim Payment Certificates]
- Sub-Clause 14.7 [Payment]
- Sub-Clause 15.2 [Termination by Employer]
- Sub-Clause 17.6 [Limitation of Liability]

The Contractor obligations which are dealt with exclusively within Clause 4 itself are the obligations for Setting Out (Sub-Clause 4.7), Quality Assurance (Sub-Clause 4.9), Site Data (Sub-Clause 4.10), Rights of Way (Sub-Clause 4.13), Avoidance of Interference (Sub-Clause 4.14), Transport of Goods (Sub-Clause 4.16), Security of the Site (Sub-Clause 4.22) and Fossils (Sub-Clause 4.24).

References to the other Clause 4 Contractor obligations are found in the Sub-Clauses mentioned below. These Contractor obligations are identified as General Obligations, Performance Security, Contractor’s Representative, Subcontractors, Assignment of Benefit of Subcontract, Cooperation, Safety Procedures, Sufficiency of the Accepted Contract Amount, Unforeseeable Physical Conditions, Facilities, Access Route, Contractor’s Equipment, Protection of the Environment, Electricity Water and Gas, Employer’s Equipment, Free-Issue Material or Progress Reports.

- Sub-Clause 1.1 [Definitions] – various
- Sub-Clause 1.7 [Assignment]
- Sub-Clause 2.1 [Right of Access to the Site]
- Sub-Clause 2.2 [Permits, Licences or Approvals]
- Sub-Clause 2.3 [Employer’s Personnel]
- Sub-Clause 2.5 [Employer’s Claims]
- Clause 5 [Nominated Subcontractors]
- Sub-Clause 6.6 [Facilities for Staff]
- Sub-Clause 6.9 [Contractor’s Personnel]
- Sub-Clause 6.10 [Records of Contractor’s Personnel and Equipment]
- Sub-Clause 7.1 [Manner of Execution]
- Sub-Clause 7.3 [Inspection]
- Sub-Clause 7.4 [Testing]
- Sub-Clause 8.3 [Programme]
- Sub-Clause 9.1 [Contractor’s Obligations]
- Sub-Clause 11.5 [Removal of Defective Work]
- Sub-Clause 11.7 [Rights of Access]
- Sub-Clause 11.11 [Clearance of Site]

- Sub-Clause 12.1 [Works to be Measured]
- Sub-Clause 13.1 [Right to Vary]
- Sub-Clause 13.2 [Value Engineering]
- Sub-Clause 13.5 [Provisional Sums]
- Sub-Clause 13.6 [Daywork]
- Sub-Clause 14.2 [Advance Payment]
- Sub-Clause 14.3 [Application for Interim Payment Certificates]
- Sub-Clause 14.6 [Issue of Interim Payment Certificates]
- Sub-Clause 14.7 [Payment]
- Sub-Clause 14.12 [Discharge]
- Sub-Clause 14.15 [Currencies of Payment]
- Sub-Clause 15.2 [Termination by Employer]
- Sub-Clause 15.5 [Employer's Entitlement to Termination]
- Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment]
- Sub-Clause 16.4 [Payment on Termination]
- Sub-Clause 17.3(c) [Employer's Risks]
- Sub-Clause 17.6 [Limitation of Liability]
- Sub-Clause 18.1 [General Requirements for Insurances]
- Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment]
- Sub-Clause 18.3 [Insurance against Injury to Persons and Damage to Property]
- Sub-Clause 19.1 [Definition of Force Majeure]
- Sub-Clause 19.6 [Optional Termination, Payment and Release]

## **Sub-Clause 4.1 Contractor's General Obligations**

### The Fundamental Obligation

Sub-Clause 4.1 contains five paragraphs which are considered in turn. The first two paragraphs of Sub-Clause 4.1 has been developed from Sub-Clause 8.1 of the Red Book 4<sup>th</sup> Edition. The third and fifth paragraphs of Sub-Clause 4.1 have significantly changed from Sub-Clause 8.2 of the Red Book 4<sup>th</sup> Edition. The fourth paragraph of Sub-Clause 4.2 deals with submission of work methods and is found at Sub-Clause 14.1 of the Red Book 4<sup>th</sup> Edition.

The first paragraph sets out the fundamental obligation of the Contractor – to design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Engineer's instructions and to remedy any defects in the Works.

The words "with due care and diligence" found in the 3<sup>rd</sup> Edition and 4<sup>th</sup> Edition are omitted in the 1999 Edition. The 1999 Edition is similar to the ICE 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> Edition which does not adopt these words. The effect of the words "with due care and diligence" is to impose a duty of diligence on the Contractor in carrying out the

Works even where the end result is achieved. Under FIDIC 4<sup>th</sup> it is not limited to design as it extends to the execution and completion of the Works.

The Contract will of course include the specification, drawings, bill of quantities and special conditions and, given the number of documents, there is a strong possibility that these are not entirely consistent with each other. In case of inconsistency, the order of precedence set out in Sub-Clause 1.5 will have to be applied or the Engineer may have to act under Sub-Clause 1.5 to issue a clarification or instruction. The Contractor is under an obligation under Sub-Clause 1.8 to give notice to the Employer if it becomes aware of an error or defect of a technical nature in any document prepared by the Employer.

The obligation is very general (“in accordance with the Contract”) and as a result the degree of obligation may be considerably affected by the underlying law. Under English law the underlying level of obligation would be “reasonable skill and care”, however this will be different in other jurisdictions.

The obligation to execute and complete in accordance with the Contract and with the Engineer’s instructions sets a general standard and this may in some cases mean that other provisions of the Contract are to be read in a stricter sense than might otherwise be the case. There are specific obligations set out throughout the Contract but these are not always stated in absolute terms. For example, there are many provisions under which an Engineer can give instructions and failure to follow those would clearly be a breach. Sub-Clause 3.3 gives the Engineer authority to issue instructions “*which may be necessary for the execution of the Works ... in accordance with the Contract.*” When this is read in conjunction with Sub-Clause 4.1 it is absolutely clear that the Contractor is under an obligation to obey all instructions the Engineer gives “necessary for the execution of the Works” even though these may fall outside the scope of the Contractor’s contractual obligations. Under Sub-Clause 8.3, the Contractor is obliged to proceed in accordance with the programme. The combination of Sub-Clause 4.1 and Sub-Clause 8.3 makes it clear that a Contractor who carries out the Works to a sequence different from that in the programme will be in breach of the Contract, unless such change can be justified. So, for example, if the Contractor has to revise the sequence of working because the Employer has failed to provide certain land then this will not be a breach of contract. Despite the apparent simplicity of the obligation the provision gives rise to a considerable number of disputes.

In most cases, Red Book contracts do not specify any design obligations. However it is a natural part of contracting to carry out some activities which, in common language, could be described as design and it is quite common for contractors to ask for additional payment or time extensions as a result. Such claims are often based on a misunderstanding of what is encompassed within the Contractor’s obligation to execute and complete the Works. This is because the responsibility of executing and completing the Works requires the Contractor to make decisions on methodology which have some similarity to the process of design. This is often referred to as the “buildability” of the project. Sub-Clause 4.1 tries to make this clear, but some of its provisions are sometimes overlooked. The onus is on the Contractor to check all the

contractual documents carefully to ascertain the full extent of its design obligations. The scope of the Contractor's design obligation may also be hidden within the contract given that it is comprised of many documents.

The Contractor's design obligations are referred to in other Sub-Clauses as listed below:

- Sub-Clause 5.2 [*Objection to Nomination*]
- Sub-Clause 8.9 [*Consequences of Suspension*]
- Sub-Clause 11.2 [*Cost of Remedying Defects*]
- Sub-Clause 13.2 [*Value Engineering*]
- Sub-Clause 17.1 [*Indemnities*]
- Sub-Clause 17.3 [*Employer's Risks*]
- Sub-Clause 17.5 [*Intellectual and Industrial Property Rights*]

#### Items and Services provided for the Works.

The second paragraph obliges the Contractor to provide (amongst other things) “*all Contractor's Personnel, Goods, consumables and other things and services whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.*” In other words, even in the absence of a specific design obligation, the Contractor is obliged to provide everything necessary in order to carry out the Works. It is likely for this reason that FIDIC 1999 dropped the terms “*so far as the necessity for providing the same is specified in...the Contract*” recognising that it is impracticable and/or impossible to include every item or tool which may be required. This is often referred to as the “inclusive price principle”: *A. E. Farr v Ministry of Transport*,<sup>2</sup> which requires that all indispensable or contingently necessary expenditure required to complete the Works will be included in the Contractor's price and his completion obligations, in the absence of express provision to the contrary.

The term “Goods” is defined in Sub-Clause 1.1.5.2 to mean “Contractor's Equipment, Materials, Plant and Temporary Works”. This therefore includes everything necessary on a temporary basis to enable the Contractor to carry out the Permanent Works. In other words, while the Employer designs the Works, the Contractor is entirely responsible for devising the method for carrying out the Works.

A typical example is the following: The Employer's design shows the power house in a hydro-electric dam cantilevered from the upstream face of the dam. The design is entirely feasible but in order to carry it out it will be necessary for the Contractor to devise a method of supporting the cantilever during the process of construction. This may be complex and expensive – it may require a very extensive and technically difficult support structure on a temporary basis which may involve quite difficult

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<sup>2</sup> (1965) 5 BLR 94

design issues – but it is entirely the Contractor’s responsibility even though he has no design responsibility for the Permanent Works themselves.

In the case of *Thorn v The Mayor and Commonalty of London*<sup>3</sup> the court held that there was no implied warranty from an employer about the buildability of the works. In *Thorn*, Lord Cairn’s held that the contractor “*ought to have informed himself of all particulars connected with the work and especially as to the practicability of executing every part of the work contained in the specification*”. It should be noted that the contractor may have no cause of action against the architect or engineer who prepared the defective design: *Galliford Try Infrastructure Ltd v Mott MacDonald Ltd*.<sup>4</sup> However, where the design is impossible to construct then the Contractor will not be in breach and a change in the design will be required, which can only be done by a variation.<sup>5</sup>

Another example is the working or construction drawings which will be necessary for the Contractor to put the Employer’s designs into effect. In a road construction, the Employer’s design will show the nature of the structure of the road – the depth of the underlay, the subsurface and the nature and thickness of the surface layers, the typical design of the culverts and bridges and so on. It will also show the location of the road – both its vertical and horizontal location. It is then for the Contractor to construct to this design and for this purpose it will have to provide working drawings showing what is required in practice at each location along the road. This is part of the carrying out of the Works, not an element of the design and is therefore part of the obligation under Sub-Clause 4.1. Sub-Clause 4.1 clarifies this in its subsequent paragraphs.

### Site Operations and Methods of Construction

By way of the third paragraph the Contractor is responsible for the adequacy, stability and safety of all Site operations and methods of construction. The Contractor is also responsible for such design as is necessary for Plant and Materials to be in accordance with the Contract (unless the contract states otherwise), but not for other design.

### ***Design***

The definition of “Plant” is quite clear under Sub-Clause 1.1.5.5 – it is not the same as equipment, but is apparatus machinery and vehicles intended to form part of the Permanent Works. Materials do not include Plant. It is all other things intended to form part of the Permanent Works and therefore may include finished articles if they are required to form part of the Permanent Works.

The Contractor’s responsibility is stated to be that the design of each item of Plant and Materials is required to be in accordance with the Contract. This, however, is limited by Sub-Clause 17.3 [*Employer’s Risks*] at paragraph (g). Here the Contractor is not

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<sup>3</sup> (1876) 1 App Cas 120

<sup>4</sup> [2008] EWHC 1570

<sup>5</sup> *Miller v City of Broken Arrow* (1981) 660 F.2d 450

responsible for the design of any part of the Works to include Plant or Materials if such design is carried out by the Employer's personnel or "others for whom the Employer is responsible." This is an Employer risk under the contract.

### ***Construction Method***

Paragraph 4 expressly provides that upon an Engineer's request the Contractor is required to submit details of the arrangements and methods which it proposes to adopt for the execution of the Works. This is consistent with the requirements of Sub-Clause 8.3 [*Programme*] and Sub-Clause 8.6 [*Rate of Progress*] where the Contractor is required to provide detail of its intended methods or revised methods.

Paragraph 4 also provides that the Contractor cannot make any significant alterations to the arrangements and methods submitted to the Engineer unless the Contractor has first notified the Engineer of the change. What is significant is a question of fact. The provision does not provide that the Engineer must consent to the change but only that the Contractor must provide notice of the intended change.

The Contractor's responsibility differs in regards to Unforeseeable Physical Conditions at Sub-Clause 4.12. Here the Contractor is required to continue executing the Works using measures which the Contractor may consider appropriate (unless there is an Engineer instruction to the contrary). The Contractor may consider that significant alterations to the construction method are necessary. If such alterations are proper and reasonable in the circumstances under Sub-Clause 4.12 they may nevertheless fall foul of Sub-Clause 4.1 (paragraph 4) if notice of the significant change has not been given to the Engineer.

### **Contractor Design Responsibilities**

Paragraph 5 finishes by stating particularly what the Contractor must do where the Contract specifies that the Contractor shall design any part of the Permanent Works.

Sub-paragraphs (a) and (b) deal with the obligation for the Contractor to supply Contractor's Drawings. Sub-paragraph (b) requires that the Contractor's Drawings "shall be in accordance with the Specification and Drawings".

Sub-paragraph (c) provides that the Contractor shall be responsible for this part of the Works and that it shall, when completed, "be fit for such purposes for which the part is intended as are specified in the Contract".

The "fitness for purpose" obligations set out briefly here in Sub-Clause 4.1 are in several ways quite different from those set out in the Yellow and Silver Books. Sub-Clause 4.1 in both the Yellow and Silver Books requires the completed Works to be fit for the purposes for which the Works are intended. Under the Red Book, the design obligation for any part of the Permanent Works which the Contract specifies is

designed by the Contractor shall, when completed “be fit for such purposes for which the part is intended as are specified in the Contract”.

This may be a difficult standard to attain because it is expressed in absolute terms. So long as a purpose is expressed, the part of the Works which the contractor has agreed to design must fully meet that purpose.

Under English law the fitness for purpose obligation is recognised as being a particularly stringent one. In one case<sup>6</sup> one of England’s most respected judges said of a fitness for purpose obligation:

“It was therefore the duty of the Contractors to see that the finished work was reasonably fit for the purpose for which they knew it was required. It was not merely an obligation to use reasonable care, the Contractors were obliged to ensure that the finished work was reasonably fit for the purpose.”

Thus the standard applies even if a reasonably competent contractor could not have achieved it. The final product must achieve its intended purpose. This is not limited to design and includes material selection and workmanship quality.

The fitness for purpose obligation will not apply unless the purpose is set out in the contract – the most appropriate place will be in the Specification but it may also be incorporated into the Drawings or in special conditions or the Contract Agreement. Care is required to ensure that the intended purpose is adequately set out. Ambiguity exists as to the meaning of ‘specified in the contract’. Does this mean that the purpose must be expressly specified or will the deemed purpose for a particular item suffice? In the absence of an express statement of what the purpose of a part of the Works required to be designed by the Employer is, the Contractor is not obliged to meet the standard of fitness for purpose. However in the case of a road project it is probable that the purpose will be clearly spelled out.

A difficulty may arise where there is an inconsistency between the Specifications and Drawings and the ‘fitness for purpose’ obligation. This issue was considered in the case of *MT Højgaard A/S v E.On Climate and Renewables UK Robin Rigg East Ltd & Anor.*<sup>7</sup> The facts of the case revolved around an industry standard, J101, which was referred to in the contract. The standard was defective and therefore the works did not have a 20 year service lifetime, as required by the contract. At first instance the court held that the reference to a 20 year service lifetime was sufficiently clear and the risk regarding the error with J101 lay with the contractor. The Court of Appeal overturned the decision and held that the reference to a 20 year lifetime was not a warranty and that as the works had been constructed in accordance with J101 the risk lay with E.ON.<sup>8</sup> On 27 November 2015 the Supreme Court gave permission to appeal this

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<sup>6</sup> *Greaves v. Baynham Meikle* [1975] 1 W.L.R. 1095

<sup>7</sup> [2015] EWCA Civ 407

<sup>8</sup> See also *Greater Vancouver Water District v North American Pipe & Steel Ltd and Moody International Ltd* [2012] BCCA 337 where the court held that: “The general rule is that defects caused

decision and the outcome of the case is awaited. The decision may well have implications on Clause 4.1 (c) of FIDIC 1999.

Sub-paragraph (d) deals with the provision of “as built” documents and operation and maintenance manuals prior to the commencement of Tests on Completion. It should be noted that this Sub-paragraph applies where there are Tests on Completion irrespective of whether the Contractor carries out any design or not. The first paragraph of Sub-Clause 9.1 states: “The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.4 [*Testing*], after providing the documents in accordance with sub-paragraph (d) of Sub-Clause 4.1 [*Contractor’s General Obligations*].

## **Sub-Clause 4.2 Performance Security**

The Contractor must supply the Performance Security within 28 days of receipt of the Letter of Acceptance and at his own cost. The amount must be as stated in the Appendix to Tender and a copy of the Performance Security must also be provided to the Engineer. The form of the security and both the country and entity issuing the performance security must be approved by the Employer.

The Performance Security must remain valid until the end of the latest of the expiry dates of the Defects Notification Period. The Employer shall not make a claim under the Performance Security unless it is entitled to claim by reason of one of the events specified at (a) to (d) of the Sub-Clause.

### Introduction

This Sub-Clause consists of 6 paragraphs. The first two paragraphs is a re-worded version of the earlier Sub-Clause 10.1 of the Red Book 4<sup>th</sup> Edition. The origin of the third, fourth and sixth paragraphs, which have undergone much development in the 1999 Edition, are found at Sub-Clause 10.2 and Sub-Clause 10.3 of the 4<sup>th</sup> Edition. The fifth paragraph is new.

The obligation under Sub-Clause 4.2 relates to any Performance Security which is specified in the Contract. It is clear from the context that Sub-Clause 4.2 only applies to what would normally be described as performance securities i.e. on-demand or conditional bonds/guarantees. The FIDIC Red Book 1999 refers to these as ‘Demand Guarantee’ and ‘Surety Bond’ respectively. The standard forms are found at Annex C and D of the guidance section<sup>9</sup>.

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by an owner's specification are not the responsibility of the contractor, unless the contractor expressly guarantees that the construction would be fit for a specific purpose.”

<sup>9</sup> Although the Appendices to the Contract contain several other forms of draft documents (parent company guarantee, tender guarantee, advance payment guarantee, and retention money guarantee), none of these are what one would normally call a performance security (guarantee). There is no equivalent provision in the Contract body backing up the requirement for the provision of such guarantees. This is also clear from the list of circumstances under which the Employer is entitled to

FIDIC Red Book 1999 introduces new terms which require the Contractor to extend the validity period of the Performance Security. Furthermore various events and circumstances of Contractor based defaults are specified at paragraphs 4.2 (a) to (d) and it is only if one or more of these Contractor based defaults occur that the Employer's right arises under the contract to claim under a Performance Security. The earlier Clause 10 FIDIC 4<sup>th</sup> did not set out any contractor based default triggering events.

FIDIC 4<sup>th</sup> Sub-Clause 10.3 limits the Employer's right to make a call on the Security as it requires a notice to the Contractor setting out why the Contractor is in default. This only has real significance in relation to on-demand bonds as early notice may allow the Contractor to take steps (i.e. to obtain an injunction) before the monies are paid out to the Employer. However this has no practical effect where the Employer is not required by the terms of the demand guarantee to prove to the guarantor that a notice has been provided to the Contractor. This notice requirement is removed from the general conditions of the FIDIC Red Book 1999.

#### Procurement of Performance Security

Sub-Clause 4.2 requires any Performance Security to be provided within 28 days of the Letter of Acceptance. The sanction for failure is set out in (a) Sub-Clause 2.1 which entitles the Employer to deny the Contractor access to or possession of the Site and in (b) Sub-Clause 14.2(i) [*Advance Payment*] which prohibits interim certificates until the Performance Security is provided. These Sub-Clauses refer to a single Performance Security and is an indication that the definition is not intended to apply to parent company, advance payment or retention money guarantees.

The parties should attempt to agree on the form and both the entity and country prior to the Letter of Acceptance so that the Contractor has a period of more than 28 days to negotiate with the entity on the Performance Security<sup>10</sup>. Example forms are at Annex C and Annex D of the guidance section. The parties are not under an obligation to use the example forms and may use any of the forms of security for Sub-Clause 4.2. Sub-Clause 1.3 [*Communications*] provides that the Employer's approval shall be in writing and shall not be unreasonably withheld or delayed. In circumstances where the Employer has not given approval and the refusal is considered unreasonable then this could lead to a dispute. This delays procurement of the performance security and the sanctions against the Contractor (to deny access or possession of the Site and to prevent issue of Interim Payment Certificates) are ineffective for the reason that the delays are caused by the Employer. The contract is then not considered concluded and

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make a claim as set out in the fourth paragraph at the sub-paragraphs sub-clause 4.2 (a) to (d). None of these circumstances could logically apply to any of the other forms of guarantee contemplated by the Contract.

<sup>10</sup> FIDIC 4<sup>th</sup> A Practical Legal Guide by E.C. Corbett – see at page 107.

under English law the Contractor has no obligation to perform. The Contractor is entitled to be paid a reasonable sum for work done in absence of the contract<sup>11</sup>.

It is good practice to include in the tender documents; the Employer's requirements for the Performance Security and any Contractor preferences in the Contractor's proposals. Any disagreement between the Contractor and Employer can then be resolved early allowing the Contractor more time to negotiate with the entity for the Performance Security. The FIDIC Guide 1999 suggests that the Particular Conditions include the details of the Employer Requirements for the entity and the specified form. The reasonableness of withholding an approval then depends on the extent to which the Performance Security, and the entity which issued it, comply with the requirements specified in or annexed to the Particular Conditions. It is suggested that it is reasonable for the Employer to withhold approval of a form which is less favourable to the Employer than the annexed form to the Particular Conditions. The FIDIC Guide 1999 also points out that if a form was annexed, the Employer cannot then attempt to elect the alternative under the Contract of "another form approved by the Employer".

The obligation is on the Contractor to obtain the Performance Security in amounts referred to in the Appendix to Tender which is usually specified as a percentage of the Accepted Contract Amount. The amount may be increased under Sub-Clause 11.5 if a defective or damaged item of Plant is repaired off-site. The increased sum for the amount of the Security is an amount to reflect the full replacement cost of the item removed from the Site. Where there is no amount stated in the Appendix to Tender then Sub-Clause 4.2 does not apply.

#### Validity Period of the Performance Security

The Performance Security is only valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. The Sub-Clause introduces a clear Contractor obligation to extend the Performance Security if the completion of the Works is delayed. The extended validity period of the Performance Security should take into account all delays irrespective of whether they are Employer or Contractor risk and it should include the period for remedy of defects. The issuing entity may require a certain expiry date.

The Annex C form for demand guarantee includes a provision to extend the validity of the Performance Security whereas the Annex D form for the surety bond does not. However the Annex D form is expressed to be subject to the URCB no.524 (Uniform Rules for Contract Bonds, 1993) which provides that it will expire six months after the latest date for performance. The FIDIC Guide states that expiry is usually during

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<sup>11</sup> FIDIC 4<sup>th</sup> A Practical Legal Guide by E.C. Corbett – see at page 107.

the Defects Notification Period. If the Annex D form is adopted then the parties should ensure that it includes a provision to allow extension of the security period.

It is not until issue of the Performance Certificate by the Engineer under Sub-Clause 11.9 that the Contractor will have notice that the Performance Security is no longer required. A Performance Certificate will not be issued if a defect becomes apparent on the last day of the Defects Notification Period and the Defects Notification Period is extended under Sub-Clause 11.3. Extending the Performance Security validity period should take account of defects which may arise towards the end of the Defects Notification Period.<sup>12</sup> If the Contractor fails to comply with its obligation to extend the validity period the Employer is then entitled to bring a claim under sub-paragraph 4.2 (a). In such circumstances the Employer can claim for the full amount of the Security. There are no restrictions on the amount which the Employer can claim for contractor breach of the validity period.

There is no provision to extend the Performance Security if there is a dispute following the completion and the dispute goes to arbitration. If the Employer wishes to retain the benefit of the Performance Security as a means of ensuring that it will be paid any claim it makes against the Contractor it will therefore have to call the Security while it still remains valid or use the threat of such a calling to force the Contractor to extend the period of the Performance Security.

### Two Forms of Performance Security

As mentioned above, there are two draft forms of Performance Security. The type of performance security required should be specified in the Particular Conditions. Both of the example forms at Annex C and D contain an optional clause to allow for a percentage reduction of the sum guaranteed on issue of a taking over certificate for the 'whole' of the Works.

#### Annex C

Annex C is a demand guarantee and the Employer is entitled to call upon it without having to prove a default to the party who has given the security (the guarantor). A simple declaration without any evidence that the pre-conditions have been fulfilled suffices. There are no pre-conditions to the calling that could be challenged in arbitration or litigation.

The Annex C form is subject to ICC's URDG no.458 (Uniform Rules for Demand Guarantees, 1992). The obligations of the guarantor (bank entity) to pay the Employer are independent from the Contractor obligations to the Employer under the construction contract. The guarantor entity in considering payment will consider the URDG terms and not the terms of the Contract. The guarantor irrevocably undertakes to pay the Employer the sums specified on receipt of the Employer's written demand

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<sup>12</sup> See Ellis Baker et al at para 7.203 page 390.

and statement. The guarantor only needs to ensure that there is a clear statement by the Employer that the Contractor (a) is in breach of his obligations under the Contract; and (b) the obligation breached using expressions similar to those in the Contract<sup>13</sup>.

#### Annex D

The Annex D form is a surety bond subject to ICC's URCB no.524. It is described as a conditional 'accessory' bond in the FIDIC Guide as it is a conditional form of security co-extensive to the Contractor's contract obligations. This means that the guarantor's obligations depend on and are determined by the contract obligations. The guarantor is not obliged to pay the Employer until default by the Contractor is proved. The default or occurrence therefore has to be demonstrated to the guarantor before the obligation to pay comes into effect. The proof of Contractor default could be by way of an Engineer's Determination or the decision of a DAB.

Under Sub-Clause 3.5 the Parties are obliged to give effect to every Determination unless and until it is revised under Clause 20. Where a determination or decision of the Engineer or DAB is binding pending a further decision under Clause 20, this will still provide the basis for a calling of a demand guarantee. This is so, even though the Contractor may have immediately referred an Engineer's Determination to a DAB and the DAB overturns the Engineer's Determination. The Employer will have gained the right to call on the Performance Security before the DAB will be obliged to give a decision. Similarly under Sub-Clause 20.4, the decision of the DAB is binding until reversed in arbitration. This means that even in circumstances where the Contractor has submitted a notice of dissatisfaction of a DAB decision – the Employer will almost certainly have the right to call on the Performance Security.

By reason of the Guarantor's inseparable linked obligations and liabilities, the guarantor entity should consider both the terms of the URCB and the Contract together with the alleged default of the Contractor to assess whether the Employer is entitled to compensation under the contract and also entitled to make a call on the surety. The surety bond therefore provides security against the Contractor's inability or refusal to pay a proven claim.

#### Applicable Laws

The Performance Securities may be governed by a law different to the law of the FIDIC contract (due to the jurisdiction of the entity for example) and care is therefore required in drafting the securities.

The Annex C form requires the applicable law to be specified because the demand guarantee is independent to the contract. The URDG (Article 27) to which Annex C is subject defines the applicable law as that applied in the place of business of the guarantor. The Employer may specify a different applicable law.

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<sup>13</sup> See FIDIC Guide 1999

The Annex D form differs to Annex C as it is dependent on the contractual obligations. It is logical for the surety bond to be governed by the same law which governs the contract. This is what the form at Annex D provides. The FIDIC Guide 1999 states in selecting the applicable law the Employer should give consideration to enforcement issues of a valid demand such as the law of the country which has well-established case law for enforcement of independent conditional performance securities.

#### The Conditions at Paragraphs (a) to (d)

The justifications for a call by the Employer are set out at paragraphs (a) to (d) of Sub-Clause 4.2. They apply irrespective of the form of the Performance Security selected and/or approved by the Employer. This means that the independent demand guarantee at Annex C is a conditional demand form because one of the circumstances at paragraphs (a) to (d) must arise prior to making a call.

Paragraphs (a)<sup>14</sup> to (d) are very wide. In particular paragraph (d) is especially wide as it allows a call wherever the grounds exist for an Employer to terminate under Sub-Clause 15.2, whether or not the Employer has given notice. The circumstances in which Sub-Clause 15.2 gives a right to terminate are set out in detail in the commentary for Sub-Clause 15.2. For the present purposes, the most far-reaching reason justifying calling of the demand guarantee is that set out in 15.2 (c)(i) for the Contractor's failure to proceed with the Works in accordance with Clause 8. This is because Sub-Clause 8.1 requires the Contractor not only to proceed "with due expedition and without delay" which arguably means without any delay at all but also to proceed in accordance with the Sub-Clause 8.3 programme; although this will be subject to the *de minimis* rule. This means that the Contractor is under an obligation to proceed in the precise order and at the times set out in the programme. These are two obligations which even the most efficient and successful Contractor will probably breach from time to time even if, overall, the Works are proceeding very well.

The terms at Sub-Clause 4.2 paragraphs (a) to (d) further limits the ability to call under the Performance Security. For example, while a failure to pay an amount determined as payable by the Engineer under Sub-Clause 2.5 is a default immediately, the Employer is not entitled to make a call under Sub-Clause 4.2 until 42 days after the Engineer determination has been made (see paragraph b). Similarly, although the Contractor is obliged under Sub-Clause 20.4 to give prompt effect to every decision of the DAB, the Employer is not entitled to call the demand guarantee for 42 days (see paragraph c).

Except for the Contractor's failure to extend the validity period (Sub-Clause 4.2(a) ), there is a restriction on the amount which the Employer can claim in regards to the other Contractor failures at Sub-Clause 4.2 (b), (c) and (d). The Employer's claim is limited to sums which the Employer is '*entitled under the Contract*'. This results in the need to crystallise the Contractor's contractual liability.

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<sup>14</sup> Paragraph (a) has already been considered above in relation to extending the validity period.

### Employer Breach

A call which does not fall within one of the justifications set out in (a) to (d) of the Sub-Clause 4.2 will be a breach of contract by the Employer. This might justify the Contractor itself in terminating under Sub-Clause 16.2(d) because a call by the Employer for the Performance Security in the absence of having a justification to do so is substantial failure of the Employer to perform his obligations under the Contract.

Where the right to call the Performance Security is based on default there is less likely to be controversy about the actual calling (see Surety Bond below).

### Indemnity

The penultimate paragraph of Sub-Clause 4.2 deals with rights and liabilities in the situation where the Employer successfully calls for the Performance Security however the call was either unjustified or the sum recovered exceeded the Employer's loss. The Employer is obliged to indemnify and hold the Contractor harmless of all damages. There is therefore an implied duty on the Employer to return the overpaid monies. The indemnity is for "*all damages*" to include legal fees and expenses. These heads of loss may not be recoverable in arbitration or Court action.

The indemnity provision does not extend to place an obligation on the Employer to reimburse the Contractor for any finance charges incurred or loss of reputation as a result of the incorrect call made on the Performance Security.

It should also be pointed out that the contract does provide that the Performance Security should be returned where there is termination for Employer based default (under Sub-Clause 16.2) or for convenience (under Sub-Clause 15.5).

### Calling a Demand Guarantee (Annex C Form)

Most controversy about the calling of Performance Securities arises from calls of a demand guarantee because there is always a risk that an Employer will call a guarantee even though there is doubt about the justification for a call. In circumstances where the Employer's declaration is subsequently proved to be incorrect, the Contractor may have recourse under the Laws and/or under the indemnity in the penultimate paragraph of Sub-Clause 4.2.

Even where the Employer's call for monies under the demand guarantee may arguably be justified, the Contractor will often wish to contest it. To reduce the possibility of subsequent disputes, the calling of the demand guarantee should take place after liability has been established by agreement or by the Engineer, DAB or arbitral decision.

### Court Intervention: Incorrect Calling of a Demand Guarantee

The guarantor is not entitled to refuse a call even if the Contractor alleges that the call is made without legal justification. The intention of the demand guarantee form is that there should be no room for argument. Historically, the courts in most common law jurisdictions would not intervene to prevent such a call, except where fraud was alleged. However, recently the English courts have re-considered when a party may be prevented from making a call on a bond. In *Simon Carves v Ensus UK*<sup>15</sup>, Akenhead J summarised 5 principles that the courts should have in mind when considering whether to prevent a call on a bond. At paragraph 33 of his judgment he stated:

*"(a) Unless material fraud<sup>16</sup> is established at a final trial or there is clear evidence of fraud at the without notice or interim injunction stage, the Court will not act to prevent a bank from paying out on an on demand bond provided that the conditions of the bond itself have been complied with (such as formal notice in writing). However, fraud is not the only ground upon which a call on the bond can be restrained by injunction.*

*(b) The same applies in relation to a beneficiary seeking payment under the bond.*

*(c) There is no legal authority which permits the beneficiary to make a call on the bond when it is expressly disentitled from doing so.*

*(d) In principle, if the underlying contract, in relation to which the bond has been provided by way of security, clearly and expressly<sup>17</sup> prevents the beneficiary party to the contract from making a demand under the bond, it can be restrained by the court from making a demand under the bond.*

*(e) The court when considering the case at a final trial will be able to determine finally what the underlying contract provides by way of restriction on the beneficiary party in calling on the bond. The position is necessarily different at the without notice or interim injunction stage because the Court can only very rarely form a final view as to what the contract means. However, given the importance of bonds and letters of credit in the commercial world, it would be necessary at this early stage for the Court to be satisfied on the arguments and evidence put before it that the party seeking an injunction against the beneficiary had a strong case. It can not be expected that the court at that stage will make in effect what is a final ruling."*

In *Doosan Babcock Ltd v Comercializadora De Equipos Y Materiales Mabe Limitada*<sup>18</sup> Edwards-Stuart J approved these principles. When applying to the court

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<sup>15</sup> [2011] BLR 340

<sup>16</sup> See also *Edward Owen Engineering Limited v Barclays Bank International* [1978] 1 All ER 976 (CA)

<sup>17</sup> In *MW High Tech Projects UK Ltd & Anor v Biffa Waste Services Ltd* [2015] EWHC 949 Edwards-Stuart J held that either an express or implied term may suffice.

<sup>18</sup> [2013] EWHC 3010

for an injunction it is not sufficient that there is a seriously arguable case that the beneficiary was not entitled to draw down; it must be positively established that he was not entitled to draw down under the underlying contract: *Permasteelisa Japan KK v Bouyguesstroi and Bank Intesa SpA*.<sup>19</sup> In this regard the test is more onerous than the one usually applied when seeking an injunction.<sup>20</sup>

The way in which the Courts will react to any attempt by the Contractor to obtain an order preventing an Employer calling a demand guarantee will depend on the jurisprudence of the country in which the bank or insurance company issuing the security is based, the law of the contract, whether or not the jurisdiction of the courts is displaced by an arbitration provision and what the arbitration law of the country provides where a party seeks an order from a court relating to an issue which is subject to the arbitration clause. The Federal Court of Australia in *Cough Engineering v ONGC*<sup>21</sup> sets out guidance as to the issues which it needed to consider. In further discussion about the commercial intention of demand guarantees, the Federal Court quoted another Australian case<sup>22</sup> in which the Court held that the commercial purpose of demand guarantees was to be as good as cash. This reference is reflected in the FIDIC form. The form of demand guarantee applies the URDG published as number 458 by the International Chamber of Commerce. A common international standard for securities is achieved by incorporation of these Rules. The FIDIC Guide provides that the URDG no.458 sets out the requirements for the Employer making a call for the demand guarantee. The introduction to these Rules states:

*“The Beneficiary wishes to be secured against the risk of the principal's not fulfilling his obligations towards the beneficiary in respect of the underlying transaction for which the demand guarantee is given. The guarantee accomplishes this by providing the beneficiary with quick access to a sum of money if these obligations are not fulfilled.”*

*“Whilst recognising the needs of the beneficiary, the principal can expect on the grounds of equity and good faith to be informed in writing that, and in what respect, it is claimed he is in breach of his obligations. This should help to eliminate a certain level of abuse of guarantees through unfair demands by beneficiaries.”*

These are explicitly modest controls. It is not expected that the process will limit all abuses. The intention that the Employer (beneficiary) receives cash is not to be limited by anything other than a requirement to notify the Contractor (principal) before a claim is made. This is similar to Sub-Clause 10.3 of FIDIC 4<sup>th</sup> provision

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<sup>19</sup> [2007] EWHC 3508 (QB); and *MW High Tech Projects UK Ltd & Anor v Biffa Waste Services Ltd* [2015] EWHC 949 [34]

<sup>20</sup> *American Cyanamid Co v Ethicon Ltd* [1975] AC 396.

<sup>21</sup> *Clough Engineering Limited v Oil and Natural Gas Corporation Limited* [2008] FCAFC 136 (22 July 2008 <https://www.i-law.com/ilaw/doc/view.htm?id=208147>)

<sup>22</sup> *Wood Hall Ltd v The Pipeline Authority* (1979) 141 CLR 443

which expresses the requirement for the Employer to give notice to the Contractor to state the nature of the default.

In the text of the ICC Rules the following is stated:

*“Article 2 (b)*

*Guarantees by their nature are separate transactions from the contract(s) or tender conditions on which they may be based, and Guarantors are in no way concerned with or bound by such contract(s), or tender conditions, despite the inclusion of a reference to them in the Guarantee. The duty of a Guarantor under a Guarantee is to pay the sum or sums therein stated on the presentation of a written demand for payment and other documents specified in the Guarantee which appear on their face to be in accordance with the terms of the Guarantee.”*

Again the underlying commercial intention is that the beneficiary holds the demand guarantee as security and that if there is a call it should be paid immediately and any issues between the parties resolved later.

Thus the conclusion reached by the Federal Court would also be relevant to a FIDIC demand guarantee. Having reached its conclusion, the Federal Court went on to discuss the only possible exceptions to the general commercial rule. These are:

1. Fraud. If the party calling the demand guarantee is acting fraudulently the court may intervene to prevent the calling.
2. Unconscionable actions.
3. Breach of a contract not to call on the demand guarantee.

The first of these exceptions is fairly clear, though what is treated as fraudulent can vary considerably from jurisdiction to jurisdiction.

The second is based on a section of the Trade Practices Act in Australia<sup>23</sup>, which forbids unconscionable behaviour in commercial transactions<sup>24</sup>. Such provisions are certainly not universal. However if the law applied to the contract and the contract includes such a provision it may be a tool to prevent calling of the demand guarantee. Many civil law systems include a provision which may be to a similar effect and this argument may be open under those systems. Whether it means anything much different from fraudulent behaviour is open to question. In the Australian cases the expression has been described as meaning the following:

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<sup>23</sup> The Australian provision reads as follows:

TRADE PRACTICES ACT 1974 - SECT 51AA

Unconscionable conduct within the meaning of the unwritten law of the States and Territories

(1) A corporation must not, in trade or commerce, engage in conduct that is unconscionable within the meaning of the unwritten law, from time to time, of the States and Territories

<sup>24</sup> *Olex Focas PTY Ltd. v Skodexport Co Ltd* [1998]VR 380

“...that a person should not be permitted to use or insist upon his legal rights to take advantage of another’s special vulnerability or misadventure for the unjust enrichment of himself ...”<sup>25</sup>

Whether the law is similar in other jurisdictions will depend on the underlying law and statute but it is quite possible that such an argument could be applied.

The third exception applies if it would be a breach of contract to call on the demand guarantee. This depends on the wording of the contract. When considering this ground regard should be had to the dicta of Akenhead J in *Obrascon Huarte Lain SA v Her Majesty's Attorney General for Gibraltar*<sup>26</sup> at paras 319-322 where the judge stated that in relation to termination for fault clauses the courts have construed them in a commercial way.<sup>27</sup> The judge then referred with approval to a statement in Hudson's Building and Engineering Contracts (12<sup>th</sup> Edition) at Para 8.056:

*“Termination clauses occasionally allow termination on the ground of "any breach" or "any default". Although in principle, parties may agree whatever they wish, the courts will generally be reluctant to read such wording literally. "Default" will be read as meaning a default relevant to the contract, and the courts will treat matters which are not a breach of contract as excluded from the meaning of default. "Any breach" will be held to refer only to important breaches, to exclude minor breaches, and to include only such breaches as are of substantial importance.”*

At paragraph 321 Akenhead J stated:

*“It follows that, in construing both Clauses 15.1 and 15.2 of the Contract, a commercially sensible construction is required. The parties can not sensibly have thought (objectively) that a trivial contractual failure in itself could lead to contractual termination. Thus, there being one day's culpable delay on a 730 day contract or 1m<sup>2</sup> of defective paintwork out of 10,000m<sup>2</sup> good paintwork would not, if reasonable and sensible commercial persons had anything to do with it, justify termination even if the Contractor does not comply with a Clause 15.1 notice. What is trivial and what is significant or serious will depend on the facts.”*

It follows that a call should not be made on the Performance Bond if the breach, which the Employer relies upon, is so minor or trivial breach that the Employer would not be entitled to terminate under Sub-Clause 15.2.

### **Calling a Surety Bond (Annex D - A Conditional Bond)**

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<sup>25</sup> *Stern v McArthur* (1988) 165 CLR 489, 525-527

<sup>26</sup> [2014] EWHC 1028

<sup>27</sup> *Antaios Compania Naviera SA v Salen Rederierna AB* [1985] AC 191

Given the draft wording in Annex D the pre-conditions at Sub-Clause 4.2 paragraphs (a) to (d) are likely to have considerable effect if the Employer decides it needs to call the Performance Security. Annex D spells out an obligation to pay the amount secured:

*“Upon Default by the Principal to perform any Contractual Obligation, or upon the occurrence of any of the events and circumstances listed in sub-clause 15.2 of the conditions of the Contract, the Guarantor shall satisfy and discharge the damages sustained by the Beneficiary due to such default, event or circumstances.”*

Proof of the contractor default of its obligations is required to call the surety bond. However, the Annex D form for a surety bond is not entirely consistent with Sub-Clause 4.2. The Annex D form envisages an obligation to pay for any failure to perform a Contractual Obligation as well as for an action which would entitle the Employer to terminate under Sub-Clause 15.2<sup>28</sup>, whereas not every failure to perform a Contractual Obligation justifies a call under Sub-Clause 4.2. In contrast Annex C for demand guarantees clearly states that the right to call on the demand guarantee is for the Contractor’s breach of obligation(s) ‘under the Contract’. This limits the right to call to the events and circumstances set out in Sub-Clause 4.2.

Sub-Clause 4.2 limits the ability to call the Performance Security even though there may have been a default of a nature which would require the guarantor to pay under the terms of the surety bond itself. For example, while a failure to pay an amount determined as payable by the Engineer under Sub-Clause 2.5 is a default immediately, the Employer is not entitled to make a call under Sub-Clause 4.2 until 42 days after the determination has been made. Similarly, although the Contractor is obliged under Sub-Clause 20.4 to give prompt effect to every decision of the DAB, the Employer is not entitled to call the surety bond for 42 days. Employers wishing to make calls on the default or conditional performance securities (the Surety Bond at Annex D) therefore need to take care to ensure that they have fulfilled their obligations under both Sub-Clause 4.2 and under the conditions of the Surety Bond.

### **Sub-Clause 4.3 Contractor’s Representative**

Prior to the Commencement Date the Contractor appoints its Representative for directing the Contractor’s performance of the Contract and to receive Sub-Clause 3.3 instructions from the Engineer.

Where the Contractor’s Representative is not identified in the Contract then the Engineer’s approval is required. The Engineer’s approval is also required if the Contractor seeks to revoke the appointment of and/or replace the Contractor’s

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<sup>28</sup> Annex D states the following *“Upon Default by the Principal to perform any Contractual Obligation, or upon the occurrence of any of the events and circumstances listed in sub-clause 15.2...the Guarantor shall satisfy and discharge the damages sustained by the Beneficiary due to such Default, event or circumstances”*.

Representative. The Contractor's Representative is entitled to delegate or to revoke the delegation of its powers or functions to an identified competent person. This is provided that signed notice by the Contractor is given to the Engineer identifying the powers, function or authority delegated or revoked.

The Contractor's Representative, including its replacements or substitutions, shall be fluent in the language specified in the Contract.

The Contractor's Representative shall have all authority necessary to act on the Contractor's behalf and is the individual responsible for directing the performance of the Contractor's obligations under the Contract. The Contractor's Representative is also responsible for directing the Contractor's Personnel and Subcontractor(s) and is required to be on Site whenever works are in progress (except where a replacement individual is approved). The FIDIC Guide highlights that the Contractor Representative plays an important role and more than inferred from the terms of Sub-Clause 4.3. It is therefore important that both the Contractor and the Employer are satisfied with the proposed Contractor Representative. Indeed the FIDIC Guide 1999 suggests that both parties should be satisfied with the competence of the individual proposed. The Engineer's approval is subject to Sub-Clause 1.3 and consent should be given in writing and shall not be unreasonably withheld or delayed.

The Contractor's Representative is referred to as the 'Contractor's Superintendence' in the earlier FIDIC 4<sup>th</sup> Edition at Sub-Clause 15.1. The earlier provision confers a right on the Engineer to withdraw its approval of a competent or authorised representative *at any time*. This is disruptive to a Contractor and this express right has been removed under FIDIC 1999.

The Contractor's Representative is equivalent to a Contractor's Engineer and is required to stay on Site to manage the Contractor's performance throughout the project to include the defects notification period. The Contractor has obligations which follow the defects notification period (after issue of the Performance Certificate) under Sub-Clause 11.10 [*Unfulfilled Obligations*] for obligations which remain unperformed. The Contractor's Representative may be required on Site to direct performance of any unfulfilled obligations.

The Sub-Clause largely speaks for itself; however it contains two almost hidden anomalies.

If the Contractors' Representative is named in the Contract, the Engineer has no power to ask for his removal. This power exists only if the Contractor's Representative was initially appointed with the Engineer's consent – the Engineer can then withdraw his consent. In circumstances where the Contractor's Representative is named in the tender and therefore in the Contract the parties should also consider to agree on a list of alternative Contractor's Representative at the tender stage should the situation arise where it is necessary to replace the Contractor's Representative for one of the reasons described in Sub-Clause 4.3.

In addition, whereas the appointment of the Contractor's Representative or his replacement is subject to the prior consent of the Engineer, the Contractor's Representative's power to delegate his powers, functions and authority is not subject to consent but only to the giving of prior notice. From the Employer/Engineer's point of view this tends to undermine the usefulness of the power to prevent the appointment of a suitable person to the role of Contractor's Representative. Any notice given on Site by hand should also be issued in accordance with Sub-Clause 1.3 [*Communications*] so that it is also sent to the recipient address specified in the Appendix to Tender.

#### **Sub-Clause 4.4 Subcontractors**

The Contractor is only permitted to sub-contract parts of the Works and not the whole Works.

Note that the Contractor's unlimited responsibility for the acts or defaults of the Subcontractors applies even if the Subcontractor is imposed on the Contractor by the Employer. The Contractor is therefore fixed with strict liability under the Contract for all Subcontractors. Since a Contractor must take full responsibility for the acts or defaults of any nominated Subcontractor it may be reasonable to insist that a nominated Subcontractor provides an indemnity or that a counter-indemnity is provided by the Employer. The Contractor is prohibited from submitting claims where it is caused by or arises out of Subcontractor responsibility.

Both parties are considered to have accepted a Subcontractor named in the Contract with the result that the Contractor is entitled to use such a Subcontractor without consent. In all other cases the prior consent of the Engineer is required for the engagement of Subcontractors, unless it is a supplier of Materials.

Naming of the actual or potential Subcontractors in the Particular Conditions removes the burden of obtaining Engineer consent to the appointment and the Engineer will have no right to raise any objection to those identified Subcontractors pre-approved.

#### **Sub-Clause 4.5 Assignment of Benefit of Subcontract**

The requirement to assign the benefit of the subcontract to the Employer applies to subcontractor obligations after the expiry of the relevant Defects Notification Period. The assignment is for all benefits under the subcontract (which can only apply for parts of the Works) as Sub-Clause 4.4 prevents subcontracting the whole of the Works. The rights assigned to the Employer are only those rights which the Contractor had against the subcontractor. The Employer cannot recover from the

Subcontractor its losses if the Contractor suffered no loss as a result of the subcontractor breach.

The Engineer may instruct the Contractor to assign the benefit prior to the expiry of the relevant Defects Notification Period. There is no obligation placed on the Contractor to inform the Employer of any Subcontractor obligations which extend beyond the relevant Defects Notification Period. For this Sub-Clause to be applied the Employer must have knowledge of the particular subcontractors continuing and assignable obligation extending post the relevant Defects Notification Period. It should be noted that Sub-Clause 4.4 (d) requires each subcontract to contain provisions to entitle the Employer to require the subcontract to be assigned to the Employer.

The Contractor in assigning all benefits under the subcontract, to include the right to make future claims against the subcontractor, may deprive itself of its right to seek any legal redress for future claims against the subcontractor. There is some protection in that following the assignment the Contractor is relieved of liability to the Employer for work carried out by the subcontractor post-assignment<sup>29</sup>. However for latent defects which become apparent after the assignment, the Contractor may have lost its pre-assignment rights. The assignment terms should be carefully considered by both parties and the FIDIC Guide recommends that the following terms are appropriate:

*“Entitle the Contractor to require the Employer to make the claim on the Contractor's behalf, and/or  
Relieve the Contractor from any **further** liability in respect of any work carried out by this Subcontractor”.*

Rights and obligations under the applicable law should be considered as in some jurisdictions subcontractor rights may be wide allowing a subcontractor to recover payment directly from the Employer for sums withheld by the Contractor<sup>30</sup>.

#### **Sub-Clause 4.6 Co-operation**

This Sub-Clause deals with two separate matters, one of which goes some way to being in the nature of “Co-operation” but the other of which relates to Contractor possession of foundations, structures, plant or access and has nothing to do with Co-operation at all.

The detail and scope of Co-operation required by this Sub-Clause is to be specified in the Contract.

#### **“Co-operation”**

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<sup>29</sup> The earlier Sub-Clause 4.2 of FIDIC 4<sup>th</sup> did not contain terms to limit or exclude the Employer from pursuing the Contractor for any defects caused by the subcontractor following assignment.

<sup>30</sup> Brian W. Totterdill, *FIDIC Users' guide, A practical guide to the 1999 Red and Yellow Books* Second Edition at page 127.

A common sense reading of the word “co-operation” would include not only the acts of allowing others on or near the Site to carry out work, but also the provision of information to them about things which might affect them, the exchange of information with them so that all on Site are aware of activities which might affect their programmes.

However this Sub-Clause requires only that the Contractor provide “appropriate opportunities for carrying out work” to those listed in the Sub-Clause (Employer Personnel, other Contractors employed by the Employer and public authority personnel) as specified in the Contract or instructed by the Engineer. This, it is submitted, has a narrower application than the previous Contractor obligation under the Sub-Clause 31.1 FIDIC 4<sup>th</sup> to provide ‘all reasonable’ opportunities. Such appropriate opportunities for carrying out work include allowing use of the Contractor’s Equipment, Temporary Works or access arrangements (this is not clear from the first paragraph but is clear from the second sentence of the fourth paragraph which describes what may be included in a Variation).

The extent of obligations will be clear if the Contract specifies them, but if it does not, the Contractor is not obliged to do anything without an instruction from the Engineer. The cost of the co-operation rests on the Employer to the extent it is not specified in the contract and is an Engineer instruction. If an Engineer instruction is given under Sub-Clause 4.6, the Contractor is expected to have allowed in his Tender for the Cost which an experienced contractor could reasonably have foreseen. Again this falls short of what might normally be considered “co-operation”. This places a heavy burden on the Engineer. Even routine co-operation and co-ordination requires his instruction.

The Contractor is obliged to obey the instruction but will only be paid for carrying it out if and to the extent that it incurs Unforeseeable Cost; i.e. to the extent that the Cost was not reasonably foreseeable by an experienced contractor. The information available at tender stage together with whether the instruction amounts to a Variation is considered to determine whether the cost is unforeseeable. In those circumstances the instruction will be treated as a Variation and Clause 13 will apply. Although the trigger for the Variation will be the incurring of Cost, the remuneration will be calculated in accordance with Clause 12 [*Measurement and Evaluation*] and may therefore include profit as well as Cost. The FIDIC Guide 1999 recommends that the tender document describes the extent of the appropriate opportunities. This will assist in determining whether any particular action taken by the Contractor is unforeseeable.

The co-operation obligation under Sub-Clause 4.5 is one sided. However there is a corresponding obligation on the Employer under Sub-Clause 2.3(a) [*Employer’s Personnel*] which requires the Employer to ensure that its personnel and other contractors co-operate with the Contractor’s efforts in carrying out its obligations under this Sub-Clause 4.6. The Employer is also required to take on similar responsibilities for Safety Procedures and Protection of the Environment. Delay to the Contractor’s works caused by the Employer’s personnel (to include lack of possession of Site under Sub-Clause 2.1) entitles the Contractor to an extension of

time under Sub-Clause 8.4(e) (or under Sub-Clause 8.5 if delay is caused by the public authority) for failure to co-operate.

### **Possession**

The Employer is required to give the Contractor possession of any foundation, structure, plant or means of access in accordance with the Contractor's Documents which are to be submitted in the time and manner stated in the Specification. It is implied that the Contractor's entitlement to possession relates to work designed by the Contractor given that possession is to be set out in the Contractor's Documents.<sup>31</sup>

### **Sub-Clause 4.7      Setting Out**

The Contractor is responsible for the correct positioning of all parts of the Works where the original points, lines and levels of reference are specified in the Contract or when notified by the Engineer to the Contractor. The Contractor is responsible to rectify any error to the Works positioned incorrectly. This is not at the Contractor's risk if the specification or notice for setting out is erroneous and the Contractor used reasonable efforts to verify their accuracy before use.

Sub-Clause 4.7 has developed from Sub-Clause 17.1 of FIDIC 4<sup>th</sup>. Sub-Clause 4.7 adds terms to allow the Contractor an extension of time (in addition to Cost) resulting from delays caused by an unforeseen error in the specification or Engineer's notice. This prevents time being set at large in situations where the delay is not a Contractor risk. The Contractor's claim is subject to the Sub-Clause 20.1 notice procedure and subsequent Engineer determination under Sub-Clause 3.5, (see commentary on Sub-Clause 20.1).

Sub-Clause 4.7 removes the terms which provided that the Contractor will not be relieved of his responsibility if the Engineer checks any setting out. It is submitted that removal of these terms does not change the position that the Contractor will remain responsible even in circumstances where the Engineer checks and approves the setting out. The provision should be read in accordance with Sub-Clause 3.1(c) which states that the Contractor shall not be relieved of any of its obligations despite an Engineer approval.

It is the Contractor's duty to set out the Works but the Employer is responsible for the accuracy of the information given to the Contractor. However, before the Contractor uses the information, it is obliged to use reasonable efforts to verify it. The Contractor should give notice under Sub-Clause 1.8 [*Care and Supply of Documents*] if an error is discovered. If those reasonable efforts would not have enabled the Contractor to discover the error and an experienced contractor would also not have discovered the error, the Contractor may be entitled to an extension of time, Cost and reasonable profit. This is for executing work resulting from an error in the Employer's contract

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<sup>31</sup> Brian W Totterdill, *FIDIC users' guide. A practical guide to the 1999 red and yellow books*, at page 128

specification or the Engineer's notification. There are four steps before the Contractor's right to compensation comes into effect:

1. There must be an error; and
2. The Contractor must have used reasonable efforts to verify the accuracy of the information provided;
3. Any error must be one that an experienced contractor would not reasonably have discovered. An objective standard is the standard which applies; and
4. The error must have caused the Contractor delay and/or Cost

The Contractor is therefore not entitled to assume the information is correct and then make a claim when he eventually suffers delay or Cost. The Contractor is very much part of the process of setting out and carries some of the risk of error. This is clear enough in principle but in practice the provision is difficult to operate.

The provision requires the Contractor to rectify 'any' error. This will include minor defects. In circumstances where an error is considered insignificant, expensive and disproportionate to remedy the parties should seek to agree a reduction in the value of the work. Sub-Clause 4.7, similar to its predecessor, does not place an obligation on the Employer to mitigate its loss<sup>32</sup>.

If the Engineer admits the error due to incorrect information supplied and elects to disregard the error then due to the terms of Sub-Clause 3.1(d), which does not place authority on the Engineer to relieve the Contractor of its obligations, the Contractor should ensure that the Employer is agreeable with the Engineer's decision for the remedial works not to be carried out.

Sub-Clause 17.1 of FIDIC 4<sup>th</sup> provides that the Contractor is obliged at its own cost to correct any error it made in the setting out of the Works, unless the error was caused by incorrect data supplied to it. The FIDIC 4<sup>th</sup> edition required the contractor to carefully 'protect and preserve all bench-marks, sight-rails, pegs and other things used in setting-out the Works'. This is particularly useful in scenarios where the Engineer confirms the point for setting out on Site and not by written notice. Given that there is no obligation to protect and preserve any marker under FIDIC 1999 the Contractor is advised to seek written confirmation of the location of any setting-out points or to take steps to preserve any marker. The omission of the Contractor obligation to protect and preserve the items used in setting-out the Works is a pity because it must have made it easier for the Engineer to judge whether the Contractor's setting out was accurate. Furthermore it often leads to disputes under this Sub-Clause 4.7 as it is common particularly in road works for the bench-marks, sight-rails, pegs and other things used for the original setting out of the Works by the surveyor or designer to have disappeared.

If the Contractor arrives on Site to find that some or all of the pegs have entirely disappeared then the Contractor may have to spend considerable time and cost

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<sup>32</sup> E.C. Corbett, *FIDIC 4<sup>th</sup> A Practical Legal Guide* at page 141

replacing them before he can even begin with the laying out and positioning of the Works. It is unlikely that the omission of the requirement to protect and preserve has made any difference to the Contractor's legal obligations. The Contractor remains responsible for setting out the Works accurately and will have to correct any error it should not have made. If the Engineer discovers an error during the course of work, the Engineer will still have the power under Sub-Clause 4.1 [*Contractor's General Obligations*] to order the Contractor to correct it.

If the Contract specifies a particular alignment by reference to setting out points which no longer exist, the Contractor is entitled to insist that before he begins setting out he is given sufficient information to locate the original points etc. This information can (in addition to being provided in the Contract) be notified by the Engineer. If what is notified by the Engineer differs from what is in the Contract this may require a Variation. However with modern GPS technology it is becoming increasingly unlikely that setting out will be entirely dependent on pegs in the ground and this issue may be about to disappear as a real basis for dispute.

#### **Sub-Clause 4.8 Safety Procedures**

The Contractor has safety obligations to the persons entitled to be on Site. The Contractor must also protect the public and the adjacent private land owners from execution of the Works by providing Temporary Works such as fences and guards. The Contractor's obligation to secure the Site and to guard the Works ceases on Taking Over.

The basic safety obligations imposed on the Contractor are set out in Sub-Clause 4.8. This Sub-Clause had its origin at Clause 19 of FIDIC 3<sup>rd</sup> Edition and underwent amendments in the FIDIC 4<sup>th</sup> Edition<sup>33</sup>. The provisions relating to Security and Protection of the Environment were dealt with in one Sub-Clause under FIDIC 4<sup>th</sup>. They are not contained in one Sub-Clause in FIDIC 1999 and they have been separated out into Sub-Clauses 4.18 and 4.22 with health and safety elements at Sub-Clause 6.7 of FIDIC 1999. A further safety obligation is imposed on the Contractor at Sub-Clause 6.4 [*Labour Laws*] for Contractor Personnel.

#### Safety Regulations

Under Sub-Clause 4.8(a) the Contractor is required to comply with the 'applicable' safety regulations which may be less onerous than the other safety obligations specified under this Sub-Clause that apply to the Works and/or the Site.

#### Safety of Persons on Site

Sub-Clause 4.8 (b) and (c) deal with safety of persons on Site and has developed from Sub-Clause 19.1(a) FIDIC 4<sup>th</sup>. Although Sub-Clause 4.8 is drafted more concisely in comparison to the corresponding provisions in FIDIC 4<sup>th</sup>, ambiguity remains. If the

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<sup>33</sup> E.C. Corbett, *FIDIC 4<sup>th</sup> A Practical Legal Guide* at page 147.

Employer has any particular requirements then these should be set out in the particular conditions.

Paragraph (b) provides that the Contractor must ‘*take care for the safety of all persons entitled to be on Site*’. The Contractor’s obligation to take care of the safety of persons on Site is not so straightforward. Sub-Clause 1.1.6.7 defines Site to include the places where the Plant and Materials are to be delivered and any other places specified in the Contract as forming part of the Site. The right and possession of the Site may not be exclusive to the Contractor and different parts of the Site may come into the Contractor’s possession at different times (see Sub-Clause 2.1 [*Right of Access to the Site*]).

There is no contractual obligation placed on the Contractor to take care of non-entitled persons on Site such as trespassers. Under some jurisdictions the Contractor will be considered responsible for the safety of persons not entitled to be on site. The extent of this duty should be considered under the Applicable Law.

The obligation to keep the Site free from obstructions to avoid danger to persons under paragraph (c) no longer uses the terms to ‘keep’ the Site and Works “*in an orderly state appropriate*”<sup>34</sup>. Instead the obligation is to keep the Site and Works “*clear of unnecessary obstruction*” and in doing so the Contractor is only required to use reasonable efforts. It is a matter of opinion as to what constitutes an unnecessary obstruction and reasonable effort. Introduction of these new terms removes a strict obligation on the Contractor. The Contractor is required under Sub-Clause 17.1(b) [*Indemnities*] to indemnify the Employer against claims, loss and damage for damage to persons or property.

Presumably FIDIC’s intention to limit the obligation to avoid danger to ‘these persons’ is to ensure that the duty to keep the work areas clear of unnecessary obstruction only applies to persons entitled to be on Site under paragraph (b).

Reciprocal responsibility is placed on the Employer under Sub-Clause 2.3(b) [*Employer Personnel*] to ensure that its personnel and other contractors on Site take similar actions to which the Contractor is required to take under Sub-Clause 4.8 (a), (b) and (c).

### Safety Measures

Sub-Clause 4.8(d) imposes a narrower obligation than its predecessor at Sub-Clause 19.1(b) of FIDIC 4<sup>th</sup> in respect of safety procedures. Paragraph (d) requires the Contractor to provide safety measures at the Site by way of fencing, guarding, lighting and watching of the Works. The safety measures listed are generic and the Employer should set out any other specific requirements within the contract such as to provide warning signs. The Contractor’s obligation to provide these measures extends for the duration of the Works until taking over (of the relevant part). This is a change from the FIDIC 4<sup>th</sup> position where the obligation to provide such measures depended on

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<sup>34</sup> See Sub-Clause 19.1(a) FIDIC 4<sup>th</sup> .

whether it is ‘necessary’ or instructed by the Engineer (or constituted authority) at the Contractor’s cost. FIDIC 1999 have made the obligation compulsory for the duration of the Works.

#### Temporary Works

Paragraph (e) requires the Contractor to provide the necessary Temporary Works for the use and protection of the public or adjacent land owners/occupiers. Temporary measures may include the safety measures identified in paragraph (d). If the Contractor does not have exclusive possession of the Site then the Sub-Clause may require amendment to reduce the scope of Contractor responsibility accordingly.<sup>35</sup>

If, in the event of Force Majeure, the Contractor is not prevented from carrying out these activities but is prevented from progressing the Works properly, he will in many circumstances not be entitled to any payment for the expense incurred, (refer to commentary on Clause 19).

### **Sub-Clause 4.9      Quality Assurance**

The Contractor is under an obligation to put in place a quality assurance system to show its compliance with the Contract requirements which may be audited as the Engineer may require. Implementation of a quality assurance system does not relieve the Contractor of his obligations under the Contract.

Many of the Clause 4 provisions make up the contractual framework for quality assurance. The Contractor is specifically required to institute a quality assurance system for the purpose of demonstrating contractor compliance with the contract obligations.

The quality assurance system is a new concept in FIDIC 1999 which must be in accordance with the details stated in the contract. Details of a quality assurance system provided in the contract may be proposed by tenderers. There is no similar requirement to implement a quality assurance system under the earlier provision of Sub-Clause 36.1 of FIDIC 4<sup>th</sup>. The change in FIDIC 1999 is due to the introduction of the concept for a quality management system by the International Standard ISO 9001 for demonstrating compliance with contract requirements.

#### Audit

The Engineer is given a right to audit any aspect of the quality assurance system although no right is granted to the Engineer under this Sub-Clause to issue an instruction as a result of an audit. The Contractor is not relieved from any non-compliance of its obligations under the contract even in circumstances where the Engineer approves or fails to raise any issue to the relevant quality assurance procedures and documents submitted. The Contractor must comply with all contractual obligations and responsibilities.

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<sup>35</sup> Brian W Totterdill, *FIDIC users’ guide. A practical guide to the 1999 red and yellow books*, at page 130.

### Document Submission

Prior to each design and execution stage the Contractor is also required to submit to the Engineer details of all procedures and compliance documents. This is a wide requirement. Such documents will include any document of a technical nature such as test results for tested Plant, Materials and other parts of the Works or workmanship and even for tests carried out at the place of manufacture, fabrication and preparation. The details to be submitted will also include Temporary Works. Particular requirements (if any) should be set out in the Specification.

A formality requirement is also introduced. The Contractor is required to mark up technical documents which it submits to the Engineer. This is a costly system and the additional cost to the Employer will not be justified where the Contractor is not experienced in operating his own quality control<sup>36</sup>. The FIDIC Guide recognises that the International Standard could be inappropriate for some Works or for work in some countries. This Sub-Clause should be deleted if there is no requirement for a quality assurance system.

### **Sub-Clause 4.10 Site Data**

The Employer is to hand over to the Contractor prior to the tender submission information and data in its possession relevant to the Site to include Environmental aspects. This obligation continues after tender submission for any new information which comes into the Employer's possession. The Contractor is responsible for interpreting the information.

Prior to submitting the Tender, the Contractor is deemed to have inspected the Site and its surroundings, obtained all necessary information to include information which may influence or affect the Tender or Works. The Contractor is also deemed to be satisfied as to all relevant matters such as ground conditions, weather, necessary works and Goods, the applicable Law and procedures as well as access to Site and other services required.

### Employer's Obligation

The initial obligation is for the Employer to provide the relevant sub-surface and hydrological data in the Employer's possession. Relevant data is explained in the FIDIC Guide as the data obtained from investigations for the Works or by others such as data which is publically available but is in the Employer's possession. This means that the Employer is not required to provide opinions or conclusions shown in the reports. The Employer is therefore not required to provide data which is not relevant to the Contractor's performance of contract obligations. The critical date is the Base Date defined at Sub-Clause 1.1.3.1 as 28 days prior to the latest date for submission of the Tender. The provision differs from the 4<sup>th</sup> Edition which provides:

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<sup>36</sup> Brian W Totterdill, *FIDIC users' guide. A practical guide to the 1999 red and yellow books*, at page 131.

*“The Employer shall have made available to the Contractor, before the submission by the Contractor of the Tender, such data on hydrological and subsurface conditions as have been obtained by or on behalf of the Employer from investigations undertaken relevant to the Works but the Contractor shall be responsible for his own interpretation thereof.”*

The old provision thus limited the Employer’s obligation to data obtained from investigations relevant to the Works and required the information to be up to date of Tender.

The new provision includes data which may not have been obtained specifically for these Works, so long as it is in the Employer’s possession and it is also relevant data. Information known to be incorrect is not ‘data’. However dubious data must be made available and the FIDIC Guide 1999 suggests that in such circumstances suitable explanations are given for this data.

Such information will often exist because many projects have been the subject of investigations carried out over many years or some information may have been obtained for other projects which have been executed at the site. The FIDIC 1999 guide mentions that it is in the interest for both the Contractor and Employer to have as much factual information relevant to the Site and Works, as is available.

Data is the factual material and not the conclusions which experts or consultants may derive from it.<sup>37</sup> Thus the Employer is not obliged to release expert or consultants’ reports. If the Employer decides to release such reports it would be wise to obtain an agreement from the Contractor that the Employer should not take responsibility for any interpretation of the data. Sub-Clause 4.10 only makes the Contractor responsible for interpretation of the data, not for the interpretation of any reports based on the data.

In this context the meaning of the word “Employer” may be of considerable importance. If the Employer is, for example, a government ministry without separate legal personality, it may be the case that the Employer is the government as a whole and that relevant materials anywhere in government possession may be covered by the Sub-Clause. Employers in this position should take care to define carefully in what parts of their organisation the material they plan to make available to the Contractor for his information is held.

Following the Base Date the Employer is required to make available any further data which comes into its possession. The Contractor is therefore expected to be in possession of all the relevant material in the Employer’s possession from time to time.

#### Employer Liability

There is no particular requirement for the timing of the release of the further data. The question is what are the consequences if the Employer fails to meet this obligation to

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<sup>37</sup> This is also the position taken by FIDIC in the FIDIC guide.

make data available which is in its possession? The timing of the delivery of the material may affect the Employer's liability. Information on sub-surface and hydrological conditions at the Site and environmental aspects will have an effect on the way in which the Contractor prices and performs the Works. In circumstances where the Employer fails to submit the data timeously or deliberately withholds the data and it affects the way in which the Contractor carries out the Works the Contractor may have a claim against the Employer (such as in breach of contract). This is supported by the FIDIC Guide 1999 in that the Contractor may claim against the employer for negligent or intentional withholding of data. The damages are likely to be assessed as the difference in contract price had the data been made available<sup>38</sup>.

#### Contractor's Deemed Knowledge

It is clear in practical terms that if the Contractor is deprived of some available information and plans or works on a different basis until the correct position is ascertained it will incur Cost and may be delayed. A normal consequence of such a breach of contract would be a claim by the Contractor for time or money. The same consequences can also follow if the information given is wrong – perhaps because of errors in the studies or surveys carried out in preparation for the Works. However, whilst this is the normal consequence of such a breach, the Contract is not as clear as it might be that this is the consequence. Sub-Clause 4.10 continues after imposing the above obligation on the Employer:

*“To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works.”*

Taking into account practicability the Contractor cannot be required to have obtained information which was in the Employer's possession but was not disclosed. Further the realities of the business of contracting and the need to make many Tenders in order to obtain enough work to keep the business viable means that it is not normally practicable to make extensive investigations prior to tender.

However the Sub-Clause continues further by deeming the Contractor (but again only to the extent practicable), to have inspected and examined the Site, its surroundings, the Employer's data and other available information and to have satisfied itself not only as to the other matters listed but also as to all other relevant matters.

Clearly again the Contractor cannot be deemed to have examined data he has not been given. However he is also expected to have examined “other available information” – this would include publicly available geotechnical information for example. The Contractor's obligation to obtain information is not therefore limited to the information provided by the Employer.

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<sup>38</sup> E.C Corbett, *FIDIC 4<sup>th</sup> A Practical Legal Guide*, Clause 11 at page 112.

### ***Site and Surroundings***

It should be noted that the obligation for the Employer to provide information relates to the Site alone and the Contractor's obligation to inspect and examine relate to the Site and its surroundings. There is a gap here – the Employer does not have to provide the information he has about surroundings, but the Contractor is deemed to have inspected the data relating to the surroundings.

Site in accordance with Sub-Clause 1.1.6.7 normally means only the area where the Permanent Works will be carried out. The Employer's obligations in respect of provision of information do not apply to off-Site locations which may be very relevant to the Works – for example the routes for access or the location of borrow areas and quarries.<sup>39</sup> The Contractor's obligations for inspection and examination of the Site and data however extend to both the Site and its surroundings. Further not every area relevant to the Works is on the Site or its surroundings. In that case, while the Employer will not be required to provide information, the Contractor will not be deemed to have inspected and examined them.

In summary, this Sub-Clause leaves both parties with a considerable degree of uncertainty. The Contractor has a right to expect the information which the Employer has in its possession for the Site, but not beyond it. However he is deemed to have satisfied himself as to all risks etc – and this assumption applies even if the Employer has no information to provide him. The Contractor's obligations in any event extend well beyond the Site – even if the Employer might have been in a position to provide useful information. The test of what is “practicable” is very vague so neither party can really be sure as to whether the Contractor has met his obligations.

Overall the Sub-Clause therefore seems to place far heavier burdens on the Contractor than on the Employer. Given that the Employer is usually in a far better position to know about its Site and about working conditions in its environment, this is not necessarily the most sensible way to share risk. The Contractor, aware that he does not have a great deal of local knowledge, must price the risk of an error into his bid. Under Sub-Clause 4.11 [*Sufficiency of the Accepted Contract Amount*] the Contractor is deemed to have based the Accepted Contract Amount on all the relevant matters referred to in this Sub-Clause 4.10. The Employer may well be able to save money by taking more of the risk and carrying out more extensive pre-award investigations. The only modification of what otherwise appears to be an imperfect risk sharing model is the limitation on the Contractor's obligations to that which is “practicable (taking account of cost and time)”. This language appears to have been introduced so as to recognise the fact that in terms of cost and time for obtaining the information the Contractor is in a much worse position than the Employer and, in trying to interpret what it means in any particular set of circumstances, this needs to be taken into account.

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<sup>39</sup> *ICC Partial and Final Awards in Case 11499*, ICC Bulletin Vol 19/2 2008 at page 48

The parties should address the further available data by way of an addendum to the contract (or particular conditions if prior to signing the contract) if the further data affects a party's obligations and risks under contract.

In the common situation where a project has been undergoing planning and designing for 5 years or longer before it is put out to tender and where the Employer will have made his estimates (for budgeting purposes) of the likely cost of the works it must normally be arguable that if the Employer took this long to reach tender, the tenderers cannot be expected to make themselves as well aware of all the risks in the tender period – which will usually be weeks rather than years. Thus the “practicable (taking account of cost and time)” test can often be argued to push the risk back in the direction of the Employer. Employers may well be best advised to make this explicit and to openly agree to take more physical condition risk by providing as much information as possible.

The effect of Sub-Clause 4.10 will be relevant in considering the effect of the two following Sub-Clauses affecting the allocation of risk of pricing and physical conditions. However, in the event that the Employer fails to meet its obligations under Sub-Clause 4.10 the Contractor will also have a breach of contract claim for any mispricing, costs or acceleration or prolongation costs which may follow. This will include both Costs and loss of profit. The information available at tender stage is relevant to determine risk allocation for encountering unforeseeable physical conditions under Sub-Clause 4.12 [*Unforeseeable Physical Conditions*]. Although under Sub-Clause 4.12 [*Unforeseeable Physical Conditions*] the Contractor is only entitled to an extension of time and to recover his Costs, if there is a failure on the part of the Employer to provide all relevant data in his possession which then leads to the problematical adverse physical conditions being Unforeseeable, the Employer will also be liable for loss of profit.

### ***The Five Deemed Examples***

The Sub-Clause lists five specific examples of matters the Contractor is deemed to be satisfied at paragraphs (a) to (e). These are considered below.

*"(a) the form and nature of the Site, including the sub-surface conditions".*

See Sub-Clause 4.12 [*Unforeseeable Physical Conditions*] for sub-surface conditions which places the risk on the Employer for unforeseeable ground conditions (such as the sub-surface conditions). Under Sub-Clause 4.12, the data provided and available to the Contractor influences whether the ground conditions are actually considered to be unforeseeable.<sup>40</sup>

*"(b) the hydrological and climatic conditions".*

See Sub-Clause 8.4 [*Extension of Time for Completion*] at paragraph (c) where "exceptionally adverse climatic conditions" are grounds for an extension of time. Whilst there is an apparent mismatch in that weather may be exceptionally adverse despite the fact that the information indicating the probability of such weather was

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<sup>40</sup> ICC Partial and Final Awards in Case 11499, ICC Bulletin Vol 19/2 2008 at page 48

available to the Contractor at tender stage, this Sub-Clause may have the effect of imposing an additional requirement before an extension of time is granted. For the Contractor to show that the specific adverse climatic conditions delayed him, he must presumably demonstrate that such conditions were not allowed for nor deemed to have been allowed for in his tender and therefore in his programme and that, bearing in mind the information given to the Contractor, they are in fact exceptional. See also Sub-Clause 4.12 where hydrological conditions are treated as physical conditions and where foreseeability will be able to be judged to some extent in relation to the amount of information provided by the Employer.

*"(c) the extent and nature of work and Goods..."*.

The purpose of this paragraph is to forestall claims for variations, under Sub-Clause 13.1 [Variations], on the ground that the Contractor did not know such work was necessary. This is to be read in conjunction with Sub-Clause 4.1 [Contractor's General Obligations] which requires that *"the Contractor shall provide...all other things...required in and for this design execution..."*.

*"(d) the Laws, procedures and labour practices of the Country."*

The purpose of this paragraph is to forestall claims for extensions of time or variations based on alleged law, procedure or labour practices which, though adverse to the Contractor should have been anticipated. Arguably this rules out claims for delays in customs clearance and the issue of government permits if such delays are endemic in the Country. This is a wide requirement. The Contractor would need to consider many areas of law to include local laws covering insurance, tax, health and safety, labour and equipment importation restrictions.

*"(e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services"*.

The issue of access is also dealt with in Sub-Clause 4.15 [Access Route]. This item is to be read in conjunction with Sub-Clause 2.1 [Right of Access to the Site]. This is intended to forestall claims based on difficulties related to access or accommodation etc. The Contractor is deemed by this provision to be satisfied prior to submitting its Tender for all access requirements.

#### **SUB-CLAUSE 4.11 SUFFICIENCY OF THE ACCEPTED CONTRACT AMOUNT**

The basic structure of Sub-Clause 4.11 has not changed from the earlier Sub-Clause 12.1 of FIDIC 4<sup>th</sup> in that the Contractor is deemed to have satisfied himself as to the correctness of the Accepted Contract Amount (as required under Sub-Clause 4.11) covering all the Contractor's obligations to complete the contract. However terms introduced in FIDIC 1999 require the Accepted Contract Amount to be based on data and information referred to in Sub-Clause 4.10. The effect of this new provision is that, having based the Accepted Contract Amount on his knowledge of the matters set out in Sub-Clause 4.10, the Contractor is then deemed to be happy with the Accepted Contract Amount. If the matters set out in Sub-Clause 4.10 are wrong, the Contractor's satisfaction with the Amount will prove to be a mistake. Further a

satisfaction which is deemed as at the date of agreement with the Employer does not necessarily imply such satisfaction will continue – in practice it very often does not.

Thus there is a question as to what is the intention and meaning of this Sub-Clause.

If the Contractor is not satisfied with the price, what effect would this have on the rights of the parties? The last paragraph of Sub-Clause 4.11 makes it clear (as does the Contract Agreement) that, subject to the exceptions set out in the Contract, the Accepted Contract Amount is all that the Contractor is entitled to receive for carrying out the Works. His satisfaction or otherwise with this Amount is irrelevant – this is the price he agreed to carry out the Works.

If the Contractor's initial satisfaction is based on interpretations of the data and his own investigations which subsequently prove to be erroneous, the Contractor would not normally expect to be relieved from his bad bargain. Sub-Clause 4.10 makes it clear that in some cases where it is not practicable to obtain certain information (such as for the reason of time or cost) the Contractor will not be deemed to have obtained all the necessary information to make his Tender. It would seem therefore that if, as a result of his inability for reasons of cost or time to verify all the information he needs to make the Tender at a price which will be correct and sufficient, he can no longer be said to be responsible for the Accepted Contract Amount and it will have to be adjusted to take account of the actual facts once it has been possible to verify them.

This has many interesting implications throughout the Contract. For example under Sub-Clause 4.7 the Contractor is responsible for setting out the Works and their correct positioning. It is common for Contractors to find, once they have time to investigate, that certain points have disappeared or moved over time. Sub-Clause 4.7 places the risk on the Contractor who must include the costs of replacing missing points in his price. However, if, under Sub-Clause 4.11, the Contractor can show that because of the short period available for making his Tender he did not have time to check the survey, he will be able to argue that his price was therefore not sufficient and he may be able to make a claim for the additional amount.

The same arguments would apply if the data provided by the Employer turns out to be inaccurate and means that the Accepted Contract Amount is therefore inadequate. If the Employer is in breach of its Sub-Clause 4.10 obligations, the Contractor may have grounds to make a claim against the Employer for additional payment. It is submitted that this would not apply where the Contractor could have discovered errors or omissions in the information provided by the Employer.

#### **SUB-CLAUSE 4.12 UNFORESEEABLE PHYSICAL CONDITIONS**

Van Oord UK Ltd & Anor v Allseas UK Ltd [2015] EWHC 3074 (TCC) (12 November 2015)  
Shepherd Homes Ltd v Encia Remediation Ltd [2007] EWHC 70

This is one of the most important provisions of the Contract in that it allocates the risk of physical conditions (other than bad weather) between the Contractor and the Employer. Where these conditions are unforeseeable then the risk is borne by the

Employer and the Contractor may be entitled to recover time and Cost (but not profit). Cost recoverable may be subject to a deduction for advantageous physical conditions.

### **Physical Conditions**

The definition of physical conditions has a broad meaning as it extends to categories such as natural, man-made and sub-surface conditions (although climatic conditions are excluded). See Sub-Clauses 4.10, 8.4 and 17.3 for other references to weather. The meaning of physical conditions is however restricted to conditions on the Site. Given the definition of “Site” in Sub-Clause 1.1.6.7 this may be a considerable limitation on the Contractor’s ability to claim. The Site normally only includes those areas where Permanent Works are to be carried out and other places which may be specified in the Contract. Areas where access roads or temporary storage areas have to be constructed may not be included in the Site and the Contractor may have to take all risk of adverse conditions. Similarly areas such as quarries which the Contractor may be relying on in order to carry out the Works are often not part of the Site, even though the Employer may have allocated them or indicated their availability in tender documents. A Contractor who wishes to ensure he has a remedy in case such areas might not have the physical characteristics he expects will need to ensure that relevant special conditions are included in the Contract.

### **Contractor’s Claims**

The final paragraph of this Sub-Clause, points towards a precaution that the Contractor can take during the tendering process. In deciding whether the physical conditions were foreseeable, the Engineer can take into account any evidence of what the Contractor actually foresaw when submitting the Tender. The Engineer is not bound to accept such evidence. However in light of his obligation under Sub-Clause 3.5 to act fairly, he cannot simply ignore it. Thus the more substantial the evidence and the reasoning behind the assumptions the Contractor has made, the more difficult it will be for the Engineer to ignore it. Contractors should take care to record what physical conditions they assume in preparing their pricing and why they assume this. This does not form part of the tender – simply part of the background to the pricing decisions.

However the final paragraph of the Sub-Clause is not entirely clear. It is arguable that it is likely to be intended to apply only to the penultimate paragraph (i.e. the immediately preceding paragraph) in the Sub-Clause. This penultimate paragraph does not deal with adverse physical conditions. Instead it considers beneficial physical conditions and applies a test based on what the actual Contractor should have foreseen at the time of submitting his tender and not on what the hypothetical “experienced contractor” might have foreseen. Similarly the final paragraph refers to conditions which were foreseen by the Contractor and not information which might have been foreseen by the hypothetical “experienced contractor”. If this interpretation is correct, evidence of what the Contractor actually foresaw does not need to be taken into account by the Engineer when considering the effect of adverse physical conditions. Where physical conditions are more favourable than reasonably foreseen at the time of the tender then the penultimate paragraph allows the Engineer to determine or agree a reduction in Cost as a result without reducing the Contract Price.

### **Unforeseeable**

The Contractor may only claim for Unforeseeable physical conditions. “Unforeseeable” as defined in Sub-Clause 1.1.6.8 means “*not reasonably foreseeable by an experienced contractor by the date for submission of the Tender.*” The test is thus an objective one for the measure of foresight which could work both ways. A contractor who has not foreseen a particular physical condition may not be able to claim for it because an experienced contractor would have foreseen it. A Contractor who has foreseen it might still be able to claim because, in foreseeing it, he showed more foresight than the normally experienced contractor. The test is 3 pronged:

1. The first thing to consider is whether the event or circumstance is foreseeable
2. The test introduces the standard to be applied to assess point 1 above. The standard is that of an experienced contractor and is therefore an industry standard. This may be a higher standard than that of an ordinary contractor.
3. The factual circumstances of the physical conditions which were reasonably foreseeable at the time of tender.

However, in light of the fact that the Contractor is deemed under Sub-Clause 4.10 to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Works, it is difficult to see how an experienced contractor could fail to predict most physical difficulties. The Contractor is also deemed under Sub-Clause 4.11 to be satisfied of the Accepted Contract Amount based on the deemed information under Sub-Clause 4.10.

What may or may not be foreseeable by an experienced contractor will depend on the particular condition encountered, the information which was available to the Contractor and the other information which an experienced contractor might have reasonably had access to. The issue is never an easy one, it involves exercise of judgment regarding whether the physical condition is unforeseeable and often results in different views. Is a contractor, otherwise experienced but new to a particular country, expected to meet the standards of a local contractor when an authority has deliberately decided not to award the contract to local firms because they lack capacity and perhaps other elements of the actual contractor’s experience?

This provision has recently been considered by the English courts. In *Obrascon Huarte Lain SA v Her Majesty’s Attorney General for Gibraltar*<sup>41</sup> Akenhead J rejected a contractor’s claim based on unforeseen ground conditions. The contractor argued that the ground conditions were not expressly identified in the geotechnical information provided pre-contract. Akenhead J stated:

“I am wholly satisfied that an experienced contractor at tender stage would not simply limit itself to an analysis of the geotechnical information contained in the pre-contract site investigation report and sampling exercise. In so doing

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<sup>41</sup> [2015] EWCA Civ. 712

not only do I accept the approach adumbrated by Mr Hall [the defendant's geotechnical expert] in evidence but also I adopt what seems to me to be simple common sense by any contractor in this field."

In the recent case of *Van Oord UK Ltd & Anr v Allseas UK Ltd*<sup>42</sup> Coulson J followed a similar approach to Akenhead J in the *OHL* Case. The contractor based its case on a probe survey which it claimed did not accurately reflect the conditions on Site. Coulson J commented that the contractors were provided with all available information as to the ground conditions, however, it was ultimately a matter for their judgment as to the extent to which they should rely upon the information provided:

"Every experienced contractor knows that ground investigations can only be 100% accurate in the precise locations in which they are carried out. It is for an experienced contractor to fill in the gaps and take an informed decision as to what the likely conditions would be overall."

### **Notice Procedure**

When the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable the Contractor is required to give notice to the Engineer as soon as practicable: *Van Oord UK Ltd & Anr v Allseas UK Ltd*<sup>43</sup>. It should be noted that this obligation only applies to adverse conditions. The Sub-Clause later in the penultimate paragraph deals with the consequence of advantageous physical conditions but the Contractor is under no obligation to notify these to the Engineer.

The burden of proof is on the Contractor to show that the physical conditions are unforeseeable. Therefore it is required that the notice has to contain an explanation of why the Contractor considers the conditions Unforeseeable and also contain enough information to enable the Engineer to inspect them i.e. it is a subjective based notice. This provision departs from previous FIDIC Contracts as the 1999 Edition now requires the Engineer to inspect the conditions in order to make his decision. The obligation is spelled out again later in the Sub-Clause where it is stated:

*"After receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with Sub-Clause 3.5 ..."*

Under Sub-Clause 12.2 of the old Red Book it was generally considered that it was up to the Contractor to prove that the conditions were adverse and unforeseeable. Sub-Clause 4.12 takes a different path. The Engineer is obliged to make his own investigations and (in view of his obligations under Sub-Clause 3.5 to act fairly) these will have to be comprehensive. Thus while the Contractor sets the process in motion with his notice, the determination of the effect and nature of the conditions is expected to be a collaborative process between the Contractor and the Engineer.

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<sup>42</sup> [2015] EWHC 3074 (TCC)

<sup>43</sup> [2015] EWHC 3074 (TCC)

The Contractor is not relieved from its obligations as a result of an adverse physical condition which the Contractor considers to be unforeseeable. On giving notice the Contractor is required to continue executing the Works. The Contractor is obliged to use proper and reasonable measures as are appropriate for the physical conditions and must also follow any resulting instructions given by the Engineer. The Engineer may instruct a suspension of the Works or part under Sub-Clause 8.8 [*Suspension of Work*] for the purpose of carrying out investigations and to consider any required Clause 13 variations.

Subject to the Contractor compliance with notice requirements under Sub-Clause 20.1 [*Contractor's Claims*] the Engineer then determines the extension of time and the Cost resulting from the adverse physical conditions. There is therefore a two-step notice procedure. The Sub-Clause provides firstly that the Contractor gives a subjective based notice as soon as practicable on encountering an Unforeseeable adverse physical condition. This differs to FIDIC 4<sup>th</sup> which requires notice to be given immediately (“forthwith”). It is followed by an objective notice under Sub-Clause 20.1 which is given within 28 days of becoming aware of delay and/or cost suffered resulting from the Unforeseeable physical condition.<sup>44</sup> This second notice is expressed to be condition precedent to the Contractor’s recovery of time and/or Cost if there is failure to comply with this notice (see Sub-Clause 20.1 commentary). The Contractor is not in this case entitled to any mark-up by way of profit on his Costs (see definition of Costs at Sub-Clause 1.1.4.3). Usually one notice may suffice for both notices depending on the specific facts of each case and content of the notice.

This exclusion of the right to claim profit only applies where the Unforeseeability was a result of the nature of the conditions themselves, not where it is a result of failure on the part of the Employer to provide data as required under Sub-Clause 4.10. If the physical condition was Unforeseeable as a result of the Employer not providing data which was in his possession, the Unforeseeability will be the consequence of a breach of the Contract by the Employer and in the normal course of events, the losses which the Contractor should be able to recover as a result should include loss of profit, (see commentary on Sub-Clause 4.10).

The Sub-Clause applies to “...when executing the Works”. In situations where the Engineer has not issued a Sub-Clause 8.1 notice to commence the Contractor is advised to avoid carrying out works such as digging trial pits. The Employer may be entitled to argue that Sub-Clause 4.12 did not apply prior to issue of the commencement notice where Unforeseeable Physical Conditions are discovered<sup>45</sup>.

### **Reductions to Cost for advantageous physical conditions**

The penultimate paragraph in this Sub-Clause 4.12 places a limitation on the amount of Cost (note that this is only Cost not time or loss of profit) which can be awarded. Before Cost is finally agreed or determined under Sub-Clause 3.5, the Engineer is given the right to review whether other similar physical conditions in similar parts of the Works were more favourable than could reasonably have been foreseen when the

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<sup>44</sup> *Obrascon Huarte Lain SA v Her Majesty's Attorney General for Gibraltar* [2014] EWHC 1028

<sup>45</sup> See FIDIC 4<sup>th</sup> A Practical Legal Guide by E.C. Corbett – see at page 120

Contractor submitted the Tender i.e. an advantageous physical condition. The Engineer may then adjust the relevant Cost element in the Contract Price.

This provision contains several elements which are not immediately obvious:

- The review can only be carried out before the additional Cost is determined under Sub-Clause 3.5. The timing is not relative to the finding of the adverse physical condition but relative to the timing of the Determination. The longer the Determination is delayed the more opportunities the Engineer gains to take other (advantageous) conditions into account.
- The right to exercise this power only applies to the period before the Determination. Thus if the Engineer has made a Determination which is disputed before a DAB or Arbitration, the DAB or arbitral tribunal cannot take anything into account except conditions which already had a beneficial effect on the Contractor prior to the Determination.
- The test in this case is not reasonable foreseeability (objective) but whether the better conditions “could reasonably have been foreseen when the Contractor submitted the tender.” This is not a purely subjective test but it is only objective in relation to the particular Contractor – could this Contractor with his level of experience and knowledge reasonably have foreseen the better conditions.
- The date for applying this different test of foreseeability is not “by the date for submission of the Tender” as in the definition of Unforeseeability but “when the Contractor submitted the Tender.” The difference may seem slight but there may be a difference if the Contractor has submitted the Tender before the final date for submission.
- The reference is to “other physical conditions in similar parts of the Works.” The question is what does “similar” mean? It is clear that not all beneficial physical conditions can be set off. The issue of what is similar is discussed below.
- The reference to “physical conditions in similar parts of the Works” is, unlike the reference to adverse physical conditions which is not limited to the Site. Thus although the Contractor cannot get Costs or time for adverse physical conditions affecting the Works off the Site, it is possible that Costs awarded in respect of Works on Site will be offset by Costs deducted for favourable conditions encountered off Site.
- The only adjustment the Engineer is entitled to make is to Cost. In other words if the positive physical conditions have enabled the Contractor to gain time this will not be offset against an extension which might have been granted as a result of encountering adverse physical conditions.
- The netting off provision provides:

*“However the net effect of all adjustments under sub-paragraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works shall not result in a net reduction in the Contract Price”*

This only limits the netting off where the additions and the reductions are encountered in similar parts of the Works. This may mean that where the Contractor has received Cost for adverse physical conditions in one part of the Site which themselves have not been offset by a reduction in the costs in a similar part of the Works, they may later be offset when another claim in a different part of the Site has an offset due to positive physical conditions in a similar part of the Works. This could result in a net reduction in the Contract Price.

### **Similar parts of the Works**

The issue of what are considered to be “similar parts of the Works” for the purpose of an off-set of costs is a difficult one. The answer may seem obvious in some cases. Assume, for example, that the Contract involves the digging of deep foundations and the Contractor has assumed a certain amount of rock in each foundation excavation. The first few foundations have been very easy with no rock at all encountered. The Contractor then encounters a series of excavations where there is far more and far harder rock than he expected. In these circumstances the two parts of the Site are similar and the set off provision can be easily applied. (The situation might be different if the first foundations show the problem and the easy excavations happen after the Engineer has issued his Determination).

However few situations are as simple as this. Another example will demonstrate the point. In constructing a hydro dam, the Contractor is required to excavate foundations. These excavations take place in the former river bed which affects the nature of the excavation process. It plans to use the material recovered elsewhere in the job. However there will not be enough so it plans to use a quarry elsewhere on Site to obtain similar materials. The quarry is not in the river bed so the process of excavation differs. It turns out that the foundations are much easier than expected, but the materials won are therefore less used than expected. Meanwhile the quarry is much more difficult and that, though the materials to be won are as useful as expected, the cost of recovery is much higher. It makes a claim under Sub-Clause 4.12 in respect of the quarry and the Engineer seeks to offset the reduced cost of excavation in the foundations. Both parts of the works are similar in that they involve excavation, but they are not similar in that the purpose of the excavation is different. This is particularly so since the element of material recovery in the foundations has been lost due to the easier physical conditions. Is the test of similarity, similarity of physical activity, similarity of purpose or similarity of location? The answer to whether an offset is permissible will depend on the answer and the degree of similarity the Engineer wishes to apply.

Unfortunately there are no clear answers to these questions, so Engineers can expect to find their determinations challenged either by the Contractor or by the Employer and the outcome of DAB or arbitration proceedings are not easily predictable.

## **SUB-CLAUSE 4.13 RIGHTS OF WAY AND FACILITIES**

Sub-Clauses 4.13 and 4.15 (see separate commentary) provide for responsibility for paying for and maintaining access.

This Sub-Clause remains essentially the same as its predecessor FIDIC 4<sup>th</sup> Sub-Clause 42.3 although there is a slight change to the vocabulary. The title of the Sub-Clause has also changed from ‘Wayleaves and Facilities’.

This clause must be read in conjunction with Sub-Clause 2.1 which places on the Employer the obligation to give to the Contractor a “right of access to” the Site. It is therefore the Employer’s obligation to give a right of access but the Contractor’s obligation to pay for any special or temporary rights of way. Under Sub-Clause 4.15 [*Access Route*] the Contractor is required to have considered the suitability and availability of the access routes and be responsible for such costs where the access routes are not suitable or available.

The Contractor is also permitted to obtain additional facilities outside of the Site. For example the Contractor may require additional offices which may need to be located outside of the Site. Perhaps an alternative quarry with wagon transport may be required where there are problems with obtaining materials from the particular quarry stated in the contract. The additional areas for facilities or for use of rights of way outside of the Site require the Engineer’s agreement under Sub-Clause 4.23 [*Contractor’s Operations on Site*] for use of the additional areas.

The distinction between permanent access and temporary rights of way for access to the Site will not always be clear<sup>46</sup>. As a result FIDIC creates liability for one party for these matters, the Contractor. The Contractor requiring temporary rights of way such as for site access is liable for those costs and charges. Whether the access is private or public, the Contractor is obliged to bear the costs of obtaining and using it (Sub-Clause 4.13) and of maintaining it (Sub-Clause 4.15(a)). If permits are necessary (this probably only applies to public access), these must be obtained by the Contractor, Sub-Clause 4.15(b). For additional facilities the risk (and the cost) is placed on the Contractor. This means that the Contractor will be responsible for loss or damage to the additional facilities. The Contractor is also required under Sub-Clause 7.3 to give Employer’s Personnel access to the temporary or special areas and to allow inspection of facilities<sup>47</sup>.

If the Engineer issues a variation which results in the requirement for special or temporary rights of way (or facilities) to be executed by the Contractor then the Contractor should be entitled to recover those costs and charges in complying with the variation to obtain such rights of way and facilities. It is a cost which the Contractor

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<sup>46</sup> Mentioned by E C Corbett at page 242 the author of FIDIC 4<sup>th</sup>, A Practical Legal Guide

<sup>47</sup> Brian W Totterdill “FIDIC users’ guide. A practical guide to the 1999 red and yellow books”. See at page 137.

could not have allowed for in its tender. This situation was not considered in FIDIC 4<sup>th</sup> and it remains unconsidered in FIDIC 1999. The result is that the Contractor will have to rely on the terms “which he may require” in arguing that the particular special or temporary rights of way and additional facilities outside the Site result from variations required by the Employer.

#### **Sub-Clause 4.14      Avoidance of Interference**

This Sub-Clause has undergone slight amendments<sup>48</sup> predominantly to the terms of indemnity in comparison to its predecessor at Sub-Clause 29.1 of FIDIC 4<sup>th</sup>.

The Contractor is required to indemnify the Employer for third party claims for interference which is ‘unnecessary’ or ‘improper’ to the convenience of the public or to access, use and occupation of roads and footpaths. This applies to access which is in possession of the public, Employer or private parties.

The terms unnecessary interference and improper interference are not defined. Claims which may fall outside of the Contractor’s liability are those where interference is either necessary or proper. However it should not be assumed that necessary or proper interference will not be the Contractor’s responsibility<sup>49</sup>. Some guidance is given under Sub-Clause 4.15 which refers to Contractor efforts considered proper in respect of roads and bridges and Sub-Clause 4.8 which deals with the Contractor’s duty to provide Temporary Works necessary for protection of the public. In summary the Contractor is liable for the avoidable claims.

The terms of the Contractor’s indemnity obligation are specific to claims of interference:

*“shall indemnify...resulting from any such unnecessary or improper interference”).*

This is a welcomed amendment given that the corresponding indemnity terms under the earlier FIDIC 4<sup>th</sup> required the Contractor to provide an indemnity for damages, loss and expenses whatsoever arising out of, or in relation to, any such matters insofar as the Contractor is responsible for.

It is now clear that the indemnity obligation term applies specifically to the claims of interference and avoidance, however this obligation is far reaching. For example, if the Contractor is in breach of Sub-Clause 4.23 for failing to confine operations, Contractor’s Equipment or Personnel to the Site (or to the additional agreed areas) and interference to the public (or to access, use of roads and footpaths) results then the

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<sup>48</sup> This provision is virtually unchanged from the 3<sup>rd</sup> Edition of FIDIC. See FIDIC 4<sup>th</sup>, A Practical Legal Guide by E C Corbett at page 183.

<sup>49</sup> Brian W Totterdill “FIDIC users’ guide. A practical guide to the 1999 red and yellow books”. See at page 137.

Contractor will be required to indemnify the Employer for resulting damages and loss in accordance with this sub-clause.<sup>50</sup>

The Employer does have an indemnity obligation to the Contractor for third party injury or property damage under Sub-Clause 17.1 for matters excluded from insurance cover at Sub-Clause 18.3(d); however the Contractor should take care to adopt appropriate measures for performance of his contractual obligations to ‘minimise’ claims from third parties. One reason for this is that the Employer is not required to indemnify the Contractor if damage results from particular arrangements and methods which the Contractor elected to adopt to perform his obligations. The Employer’s liability to indemnify the Contractor under Sub-Clause 18.3(d)(ii) is limited to the damage arising from unavoidable claims<sup>51</sup>.

### **Sub-Clause 4.15 Access Route**

This Sub-Clause concisely deals with access routes to the Site which were previously dealt with across various sub-clauses under FIDIC 4<sup>th</sup> at Sub-Clauses 11.1, 30.1, 30.2, 30.3 and 42.1. FIDIC 4<sup>th</sup> Sub-Clauses 11.1 and 30.1 are incorporated into Sub-Clause 4.15 FIDIC 1999 although in less descriptive terms, however significant changes have been made to FIDIC 4<sup>th</sup> Sub-Clauses 30.2, 30.3 and 42.1.

Obligations and responsibilities imposed on the Contractor are set out at paragraphs (a) to (e) of this sub-clause. These paragraphs also set out limitations of obligation and responsibility of the Employer.

The Contractor is responsible for damage claims to any road or bridge which is caused by Contractor ‘traffic’ or by the Contractor’s Personnel. The Contractor will not be responsible for damage caused by others such as Employer Personnel and other contractors. The Contractor has a defence to damage claims where the Contractor can show that it has used ‘reasonable efforts’ to prevent damage such as by ‘*proper and appropriate use*’ of vehicles and routes. The terms proper and appropriate use replaces the examples described at sub-clause 30.1 and 30.2 FIDIC 4<sup>th</sup> such as careful selection of routes, load distribution and necessary alterations to roads and bridges. The Contractor must comply with any legislative or other governing law requirement which applies to the use of access routes and to damage which may arise. The Contractor’s duty to exercise reasonable efforts to prevent damage to any road or bridge applies to all scenarios of use or otherwise.

The Contractor remains ‘deemed’ to be satisfied of the suitability and availability of the access routes to the Site and is responsible to contemplate and resolve all possible logistics for the duration of the Works. If access is not suitable or possible for the Contractor’s use, say due to large or heavy equipment or plant, responsibility for costs rests on the Contractor (sub-clause 4.15(e)). Paragraph (e) therefore imposes liability

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<sup>50</sup> Brian W Totterdill “FIDIC users’ guide. A practical guide to the 1999 red and yellow books”. See at page 137 and 138.

<sup>51</sup> See FIDIC Guide 1999

on the Contractor for any claim which may arise from use or otherwise of the access routes. This liability is not limited to cause or use by Contractor's traffic or Contractor's Personnel and no defence based on reasonable efforts is expressed to apply. The result is that the Contractor will be liable for all other types of claims such as injury claims or for failure to comply with any regulation irrespective of whether the Contractor access route used is proper and the reasonableness requirement referred to elsewhere in this Sub-Clause is satisfied.<sup>52</sup> The Contractor should take care to clarify access suitability and availability issues prior to submission of its tender.<sup>53</sup> The Employer does not take the risk for suitability or availability of access routes.

Pursuant to Sub-Clause 4.15(a) the Contractor is responsible to provide any maintenance required for the Contractor's use of access routes. The Contractor's responsibility for costs will include maintenance costs for any non-suitable access routes (see paragraph (e)). The Contractor remains responsible to the Employer ("As between the Parties") for maintenance even in situations where a third party has exclusive rights to an access route which cannot be granted to the Contractor<sup>54</sup>.

Access routes which have undergone maintenance but turn out to be unsuitable or unavailable are not considered as a variation even if the Contractor has to find alternative means as a result (attracting further maintenance obligations). Before tender submission the Contractor is deemed to have satisfied itself regarding the practicalities of the access routes to Site.

Paragraph (b) creates a new obligation for the Contractor to provide all necessary signage. It is also the Contractor's obligation to obtain the necessary permissions for use of the access routes. This is a significant change from FIDIC 4<sup>th</sup> where at Sub-Clause 42.1 the Employer was required to give the Contractor possession of access to the Site.

The Employer has no responsibility for any claims arising from non-suitability or non-availability of use (or otherwise) of the access routes. The Employer also does not guarantee suitability or availability of particular access routes, (see paragraphs (c) and (d)). The result is that the Contractor is to bear all costs arising from such claims. The Contractor should ensure that any difficulties for transporting Materials, Plant and Contractor Equipment to and from the Site are resolved early .

#### **Sub-Clause 4.16      Transport of Goods**

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<sup>52</sup> Brian W Totterdill "FIDIC users' guide. A practical guide to the 1999 red and yellow books". See at page 138.

<sup>53</sup> Brian W Totterdill "FIDIC users' guide. A practical guide to the 1999 red and yellow books". See at page 138.

<sup>54</sup> Ellis Baker, Ben Mellors, Scott Chalmers and Anthony Lavers 'FIDIC Contracts: Law and Practice', White & Case, Informa London 2009 – see at page 81, paragraph 3.118.

This Sub-Clause deals with the Contractor's responsibility as regards the bringing of Goods onto the Site. It also contains an indemnity by the Contractor for damages and losses resulting from the transport of Goods generally.

This Sub-Clause refers throughout to the transport of Goods, so it is necessary to refer to the definition in Sub-Clause 1.1.5.2. This is very broad and includes Contractor's Equipment, Materials, Plant and Temporary Works. It should be noted that Plant is distinct from Equipment in that its definition (Sub-Clause 1.1.5.5) refers to various mechanical items for incorporation into the Works.

Sub-Clause 4.16(a) is limited to Goods which are to be delivered to the Site, whereas the other two paragraphs (b) and (c) are not so limited.

Sub-Clause 4.16(a) requires that the Contractor give 21 days notice to the Engineer of the date on which any Plant or *major item* of other Goods will be delivered to the Site. Thus the obligation applies to any Plant at all, however minor but only to *major items* of other Goods. There is no definition of "major item" so the extent of the Contractor's obligation is not clear. Certain items will be obviously "major" but at the margins there is no certainty. Further the Sub-Clause does not seem to be capable of being applied to materials which are normally measured in quantities – for example it is not possible to describe a large shipment of cement as a major item, although it may well be a major quantity.

The Contractor is responsible for access, delivery and storage arrangements of Plant and Goods. Paragraph (a) does not make any provision for the situation where the Contractor fails to give the prior notice or fails to give sufficient prior notice for the date of delivery of items to the Site, nor what happens when Goods, which a notice has said will be delivered on a certain day are delivered earlier or later. There is no sanction that can be applied to the Contractor if this happens. The purpose of the notice is not expressed and, given that the Employer/Engineer is only really interested in progress, payment and supervision, the notice should refer to dates given in the programme and monthly programme<sup>55</sup>.

Thus the Sub-Clause can be regarded as a useful indication of good practice, but if the Engineer needs notice, it will be necessary, before execution of the Contract to draft a Particular Condition which fills the gaps in paragraph (a) and makes it more balanced as between Plant and other Goods.

Sub-Clause 4.16(b) can perhaps be said to state the obvious. A Contractor who did not pack and protect his Goods would be foolish. However paragraph (b) may be important in a situation where, for example, the Employer provides storage space off-Site or makes transport available. It is clear that despite the provision of such assistance by the Employer the Contractor will (in the absence of an express agreement to the contrary) remain responsible for care and transport of his Goods.

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<sup>55</sup> Brian W Totterdill "FIDIC users' guide. A practical guide to the 1999 red and yellow books". See at page 139.

The indemnity under Sub-Clause 4.16(c) is effectively a promise on the part of the Contractor to insure the Employer against all claims which may arise from the transport of Goods. It is not limited to the Contractor's own transport of Goods and would thus arguably also apply to any transport undertaken by the Employer or the Engineer. There are no limits – so even if the Employer or the Engineer has been negligent the indemnity still applies. Clearly the Contractor will be required to provide the indemnity where the Goods are being transported by its suppliers or sub-contractors. The Contractor is also required to negotiate third party claims.

Paragraph (c) is probably mainly directed (a) at the situation where a claim is made against the Employer by a third party who is injured or whose property is damaged during the transport of Goods by the Contractor; and (b) at the situation where the Employer's property is damaged (for example an access road damaged by overloading). The indemnity clearly covers these situations but is also broader in scope. The Contractor is likely to be insured against accidental damage caused by its *own* transport of Goods. Care is required to ensure that the insurance cover is widely enough worded to cover the other risks to which the Contractor is exposed. It should be noted that the Employer is responsible under Sub-Clauses 17.1(2) to indemnify the Contractor for items listed at Sub-Clause 18.3(d) which are excluded from insurance cover. This includes damage which is an unavoidable result of the Contractor's obligation in carrying out the Works.

### **Sub-Clause 4.17 Contractor's Equipment**

This Sub-Clause had its origins in FIDIC Red Book 3<sup>rd</sup> edition and at clause 54.1 of the 4<sup>th</sup> edition. Sub-Clause 54.1 of the FIDIC 4<sup>th</sup> edition, however, dealt with Contractor's Equipment, Temporary Works and materials.

It should be read in conjunction with Sub-Clause 1.1.5.1 – “Contractor's Equipment” definition and Sub-Clause 1.1.5.2 – “Goods” definition. “Goods” are defined as including, inter alia, Contractor's Equipment. Reference to Contractor's Equipment is also found in:-

- Sub-Clause 2.2 Permits, Licences and Approvals
- Sub-Clause 4.6 Co-operation
- Sub-Clause 4.13 Contractor's Operations on Site
- Sub-Clause 6.10 Records of Contractor's Personnel and Equipment
- Sub-Clause 8.3 Programme
- Sub-Clause 11.11 Clearance of Site
- Sub-Clause 13.6 Daywork
- Sub-Clause 15.2 Termination by the Employer
- Sub-Clause 15.5 Employer's Entitlement to Termination
- Sub-Clause 16.3 Cessation of Work and Removal of Contractor's Equipment
- Sub-Clause 18.1 General Requirement for Insurances

- Sub-Clause 18.2 Insurance for Works and Contractor's Equipment
- Sub-Clause 19.6 Optional Termination, Payment and Release

The object of this Sub-Clause is to ensure that apparatus, machinery etc., intended for completion of the Works, are not diverted to other projects on which the Contractor may be working. Removal of the Contractor's Equipment is subject to the Engineer's consent; however, pursuant to Sub-Clause 1.3 that consent should not be unreasonably withheld or delayed.

There is no date specified in Sub-Clause 4.17 as to when the Contractor may remove Equipment. Sub-Clause 11.11, however, states that the Contractor must remove the Contractor's Equipment on the issue of the Performance Certificate. In *FIDIC 4<sup>th</sup> A Practical Legal Guide*<sup>56</sup> it was suggested that the Engineer may not withhold consent once the execution of the works, subject to any necessary remedial works in the defects liability period, has been substantially completed. Where the contract is terminated then removal of the Contractor's Equipment is dealt with at Sub-Clause 16.3 or Sub-Clause 15.2 – depending on what type of termination occurred.

The Engineer will be faced with competing interests when a Contractor requests permission to remove its Equipment prior to completion of the Works. First, the Engineer may wish the Equipment to remain if it considers that it may be used again or that there may be defects, which the Contractor will need to resolve. However, if the Engineer refuses to consent to the removal of the Equipment and there is subsequently a delay event then the Contractor will claim the costs of that Equipment remaining on Site during the period of the delay. The Contractor is entitled to challenge a refusal by the Engineer to give consent and such a dispute would be referred to the DAB.

There are many construction contracts which contain a similar clause to Sub-Clause 4.17 and each one must be considered individually. Similar clauses appear in the ICE conditions of contract, as well as in earlier FIDIC conditions. The Construction Law Handbook<sup>57</sup> sets out broad principles in relation to these types of clauses.

“(a) If the contract says that title passes on delivery of the plant to site, it will be treated as an absolute transfer to the employer (*Bennett & White v Municipal District of Sugar City* [1951] AC 786).

(b) If, instead of a clear transfer, the contract ‘deems’ the plant to be the employer's property for the purposes of the contract, the contract will be treated as ambiguous and subject to rules of construction (*Re Cosslett Contractors* [1997] 4 All ER 117).

(c) If the court concludes that, notwithstanding the ambiguity, the parties did intend to create a proprietary right, it will so hold (*Brown v Bateman* (1867) LR 2 CP 272).

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<sup>56</sup> EC Corbett (1991), Sweet and Maxwell at p.330

<sup>57</sup> *Construction Law Handbook*, Ramsey J at page 563

(d) Otherwise, the provisions will be treated as having no legal effect, leaving the employer to rely on any protection in the termination clause (*Re Keen & Keen, ex parte Collins* [1902] 1 KB 555).”

### Removal of the Contractor’s Equipment following Termination by the Employer

Sub-Clause 16.3 deals with termination by the Contractor, termination at will and termination because of a Force Majeure event. The Sub-Clause states:

“After a notice of termination under Sub-Clause 15.5 [*Employer’s Entitlement to Termination*], Sub-Clause 16.2 [*Termination by Contractor*] or Sub-Clause 19.6 [*Optional Termination, Payment and Release*] has taken effect, the Contractor shall promptly:

- (a) ...
- (b) hand over Contractor’s Documents, Plant, Materials and other work, for which the Contractor has received payment, and
- (c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.”

As the definition of “Goods” includes the Contractor’s Equipment there is no right for the Employer to hold-on to the Contractor’s Equipment in these circumstances. The situation is different when termination occurs under Sub-Clause 15.2 [*Termination by Employer*]. This Sub-Clause states that, “The Contractor shall then leave the Site and deliver any required Goods ... to the Engineer.” The Sub-Clause then proceeds to state:

“After termination, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Goods, Contractor’s Documents and other design documents made by or on behalf of the Contractor.

The Employer shall then give notice that the Contractor’s Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Employer, these items may be sold by the Employer in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.”

This provision, which allows the Employer to retain and use the Contractor’s Equipment, has been the subject of much litigation. Problems have occurred especially where the Contractor has hired equipment or the Contractor has become insolvent. The definition of “Contractor’s Equipment” does not make any distinction between equipment owned or equipment which has been hired. In each case when construing this clause regard must be had to the substantive law of the contract and the law of the place of performance.

### The Law of the Contract

Regard must be had to whether the substantive law of the contract permits a party to seize the contractor's property. Romanian law, for example, would not permit a party to seize plant and equipment without a court order. An exception to this situation is where there has been a pledge of the plant or equipment by the owner in accordance with Title VI – The Regime of Security Interests on Movable Assets, of Law no. 99/1999. Sub-Clause 14.7 is therefore unlikely to be enforceable in Romania. Equally, if the contractor is not prepared to hand over the plant and equipment then the Employer cannot simply take it forcibly. A court order would be required. Similarly, a clause in a contract to sell or to apply the plant and equipment to the discharge of its claim will only be enforceable if there is a pledge set up which is registered. If an Employer, under Romanian law, wishes to use the contractor's plant then it would need to go to the court or an arbitrator and have the obligation to use the plant and materials recognised.

### Insolvency of the Contractor

If under the substantive law of the contract the Employer has a right to use the Contractor's Equipment then this right may exist solely against the Contractor. If an Employer terminates the Contract under Sub-Clause 15.2 and the Contractor thereafter becomes insolvent, there will be a conflict between the position of the Employer, who may wish to use the Contractor's Equipment to complete the Works, and the administrator of the insolvent contractor, who will be required to collect in the assets of the Contractor. This situation arose in the case of *Smith (Administrator of Cosslett (Contractors) Ltd.) v Bridgend County BC*.<sup>58</sup> The case concerned a contract which had a clause similar to Sub-Clause 15.2 of FIDIC's Red Book 1999. Cosslett went into administration and the administrator demanded the return of items of contractor's equipment (coal washing plant). The Employer argued it was entitled to use the equipment and thereafter sell it. The House of Lords concluded that the employer's right to use and then sell the property created a floating charge and that so long as it was unregistered it was void against a liquidator or administrator.<sup>59</sup> Therefore the sale of the equipment by the employer was an act of conversion and the administrator of the insolvent company was entitled to recover its losses. Any claim that the employer had against Cosslett would then have to be included as a claim in the administration.

The Editors of the Building Law Reports, in their commentary on the Smith case, remarked: "An employer contracting under the 5th, 6th or 7th Edition ICE Conditions should take care to ensure that his security is registered. A failure to register will expose him to a claim for conversion if he seeks to exercise the power of sale against a company in administration or liquidation." The Employer should also note that it needs to register the charge within 21 days of the signing of the contract in order to comply with the Companies Act, so as to be able to rely upon the power of sale.

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<sup>58</sup> [2001] UKHL 58

<sup>59</sup> *ibid* per Lord Foscote at para 67

### The Contractor not being the legal owner of the Contractor's Equipment

Problems may also arise where the Contractor is not the legal owner of the Contractor's Equipment. The following cases from India are to be read having regard to the substantive law.

In the Indian case of *National Highways Authority of India ("NHAI") v M/S You One Maharia JV & Ors*<sup>60</sup> a dispute arose regarding whether Contractor's Equipment, owned by a sub-contractor, could be removed from Site. The contract was an amended FIDIC 4<sup>th</sup> Red Book and therefore contained clauses similar to Sub-Clause 4.17 and 15.2. The contract was terminated by the Employer who used the Contractor's Equipment to complete the Works. The Respondent, who owned the Contractor's Equipment, claimed that it was not bound by a clause between the Employer and Contractor. The Respondent relied upon an earlier 2005 decision between it and the NHAI in which the court interpreted similar contractual terms to mean that only equipment and machinery which had been purchased by the contractor from out of the mobilisation advance provided by NHAI could be taken possession of and used by NHAI in the eventuality that the contract was terminated. The High Court of Delhi however distinguished the previous decision and held: (a) that an arbitral tribunal had no *locus standi* to make an award relating to the assets of a third party; and (b) that the Employer was in any event entitled to retain and use the equipment brought to site by the Contractor to complete the works and therefore the Respondent was not entitled to seek release of the equipment.<sup>61</sup>

The reasoning of The High Court of Delhi was as follows:

"The aforesaid two clauses [i.e. the ones similar to Sub-Clause 4.17 and 15.2] did not use the expression '*equipment owned by the contractor or belonging to the contractor*'. From the standpoint of the employer, i.e. NHAI, all the equipment which the contractor provided at the site of works was 'the contractor's equipment', in contradistinction with any equipment that may have been brought to site by NHAI. All such equipment brought to the work site by the contractor is deemed to be exclusively intended for execution of the works."

The High Court of Delhi then went on to consider the case of *KPM Builders Pvt. Ltd v NHAI & Anr.*<sup>62</sup> The case was again similar. A contractor hired equipment, its contract with the employer was then terminated and the hirer sought the return of its equipment from the employer. The court held that it was material that the hirer did not notify the employer that its equipment and machinery were being hired to the contractor and that it was the owner of particular pieces of machinery. In this case the hirer was aware of the contract between NHAI and the contractor and also its terms

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<sup>60</sup> (2010) Arb.A.6/2010

<sup>61</sup> *ibid* at para 21

<sup>62</sup> Civil Appeal Nos.3300-3301 of 2008

and that its failure to seek to exclude its machinery from the operation of Clause 61 [Sub-Clause 15.2] was relevant.

The High Court of Delhi felt itself bound by the decision of *KPM Builders Pvt. Ltd v NHAI & Anr*<sup>63</sup> and concluded that the hirer “ought to have carried out due diligence to make itself aware of the contractual terms between the [employer] and the [contractor] before hiring out its equipment and machinery to the [contractor]. It failed to do so, it must take the consequences.”<sup>64</sup>

These cases must be read having regard to the substantive law. In Romania, as illustrated above, the position would be different. In England and Wales the position is that a clause which purports to transfer title of a third party’s equipment from the contractor to the employer would only be effective in so far as ownership is passed from the third party to the contractor. Liquidators and administrators should also exercise care when considering ownership because equipment which does not belong to the insolvent contractor is beyond the liquidator’s or administrator’s reach.

#### **Sub-Clause 4.18 Protection of the Environment**

This Sub-Clause places an obligation on the Contractor to protect the environment.

The majority of construction contracts now include very comprehensive provisions dealing with the Contractor’s responsibility for the environment and it is unlikely (and indeed undesirable) that this vague provision should not be amended. It should be noted that under Sub-Clause 2.3 the Employer is responsible for ensuring that its personnel and other contractors on Site take similar actions to those which the Contractor is required to take under this Sub-Clause 4.18.

The obligation is to take *reasonable* steps to protect *the environment*. What is “reasonable” is particularly difficult to define in this context as it presupposes a balance between the risk of damage to the environment and the cost or difficulty of eliminating this risk. If some element of the environment is particularly precious, for reasons of scarcity, sustainability, or aesthetics the *reasonable* steps would be far more rigorous than what might be required if the environment, while still needing to be protected is less important. These issues are far too important to be left to such vague terminology. Further there is no clarity at all of what the position should be if the Works themselves endanger the environment even if carried out precisely as specified. A Contractor could argue that the Engineer will need to issue a Variation in order to make it possible for the Contractor to meet this obligation.

If this lack of clarity is not enough, the term *the environment* is entirely undefined. What does this term mean? In current usage ‘*the environment*’ is often taken to include the existing landscape, the air above and the sub-surface, including aquifers and other natural resources and the living organisms on it – both plant and animal. If

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<sup>63</sup> Civil Appeal Nos.3300-3301 of 2008

<sup>64</sup> (2010) Arb.A.6/2010 at para 40

this is what the Sub-Clause means it exposes the Contractor to risks which, if the Engineer wishes to take the concept to anywhere near the extreme position, the Contractor is unlikely to be able to manage.

The Contractor is also obliged to *limit* damage and nuisance to people and property resulting from pollution noise and other results of his operations. The term *limit* is also unclear. What exactly is the Contractor to do if the Engineer instructs the Contractor to so reduce what is obviously assumed to be a degree of damage and nuisance, that it effectively makes it impossible for him to achieve the necessary progress. Once again it is essential that the specifications deal with this important issue with more clarity. If there is no specific requirement, the Contractor is exposed to possibly unmanageable risk, because the Contract can quite legitimately be read in a way that will make the Contractor's task far harder than he envisaged.

The second paragraph of the Sub-Clause merely cross refers to requirements set out in the Specification and by law. In this sense it is unnecessary as this is in any event the Contractor's obligation. The Contractor is required to comply with the applicable Laws and is deemed to be satisfied and have considered the Laws and procedures under Sub-Clauses 1.13 and 4.10(d). The paragraph is limited to obligations in relation to emissions, surface discharges and effluent. This is not a comprehensive list of the environmentally dangerous activities the Contractor may carry out. Care is required where the maximum values in the Specification for emissions, surface discharge and effluent are not in compliance with local law. The previous paragraph refers to pollution, noise and other results of his operations and these will also be covered by law and ought to be covered by the Specification.

The Sub-Clause thus draws an unjustifiable distinction between "pollution noise and other results" and "emissions, surface discharges and effluent." If the Sub-Clause were read too literally this would mean that the contractor is not to be taken as bound by the Specifications and law for the former and is by the latter. This surely cannot be the intention but it makes it all the more important that proper environment protection is built into the Specification.

Sub-Clause 4.18 does not deal with indemnities from the Contractor. However the Contractor indemnities at 17.1 for damage to third party property may cover environmental damage.<sup>65</sup>

### **Sub-Clause 4.19 Electricity, Water and Gas**

This Sub-Clause gives the Contractor the right to use for the purposes of the Works supplies of electricity, water, gas and other services which are both available on the Site and the prices of which are included in the Specification. The Contractor is required to pay the Employer for these services.

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<sup>65</sup> Ellis Baker, Ben Mellors, Scott Chalmers and Anthony Lavers 'FIDIC Contracts: Law and Practice', White & Case, Informa London 2009 – see at page 112, paragraph 3.263.

The Sub-Clause is straightforward as far as what the Contractor is entitled to use, but it should be noted that even if one of the services is available, the Contractor is not entitled to use it unless details and prices have been included in the Specification. In other words, if there are no details and prices included in the Specification, access and pricing will have to be separately negotiated and the Employer is neither obligated to allow the Contractor to use the services, nor to be reasonable in the pricing. Sub-Clause 4.19 does not therefore impose any obligation on the Employer to make such service available irrespective of whether the services are available on Site.

The Contractor is deemed under Sub-Clause 4.10(e) to have been satisfied with its requirements for power, water and other services before submitting its Tender. The Contractor is responsible at his risk and cost both for the method of using the services and for their measurement, but this is subject to the checking of the Engineer. The Engineer will have no independent means of verifying quantities. If he suspects the Contractor's measurements he is entitled to make his own determination under Sub-Clause 3.5 [*Determinations*]. The Sub-Clause, however, gives no specific power to the Engineer to test or verify the Contractor's equipment. The testing provisions of Clause 7 [*Plant, Materials And Workmanship*] are not relevant as they only apply to the Works and Materials. Thus any argument over the quantities actually used or the verification of measurements will have to be resolved without resort to specific powers under the Contract. It would be useful to include a provision in the Specification dealing not only with the supplies and prices but also specifically providing how they are to be measured.

The Contractor is under an obligation to pay the Employer for supplies used – the amount being as agreed or determined under Sub-Clause 3.5. There is no express time before which these payments have to be made. Further these payments are not specifically referred to in Sub-Clause 14.3 [*Application for Interim Payment Certificates*] unless it is covered by 14.3(f)

“any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 20 [*Claims, Disputes and Arbitration*];”

It is arguable that it does on the basis that the amounts due from the Contractor to the Employer are deductions, but Sub-Clause 14.3 is not sufficiently clear.

The issue may be significant in the situation where the Contractor has not paid amounts due for these services and the Employer wishes to deduct them from amounts otherwise due to the Contractor. There is no clear provision empowering the Engineer to make the deduction in the Interim Payment Certificate. If he does so despite this, the Contractor may argue that the Engineer has failed to certify and that this then opens an entitlement to suspend and ultimately to terminate under Sub-Clauses 16.1 [*Contractor's Entitlement to Suspend Work*] and 16.2 [*Termination by Contractor*]. The same situation arguably applies if the Engineer issues an Interim Payment Certificate which does not include a set-off and the Employer decides to deduct the amounts he believes the Contractor owes.

Sub-Clause 2.5 [*Employer's Claims*] appears to resolve the situation, but because of its awkward drafting it can be misleading. The Sub-Clause provides that the Employer is not required to make any claim for payment under Sub-Clauses 4.19 and 4.20, under Sub-Clause 2.5, but in fact only permits a set-off or deduction after such a claim has been made:

“The Employer shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.”

Thus, notwithstanding the fact that the Employer is not required to make a claim under Sub-Clause 2.5 [*Employer's Claims*], the safest way for the Employer to act where the Contractor is not paying for services under Sub-Clause 4.19 and 4.20 is to make a claim under Sub-Clause 2.5 before making a deduction.

In practice this situation is most likely to arise where there has been a disagreement between the Engineer and the Contractor over the need for or amount of payment for the services. This will have been referred to the Engineer under Sub-Clause 3.5 [*Determinations*] and the Employer then has an opportunity at the same time to give a notice of claim under Sub-Clause 2.5 [*Employer's Claims*] so both issues will be dealt with by the Engineer at the same time. However, even if the Employer overlooks this step it can still make a claim under Sub-Clause 2.5 [*Employer's Claims*].

#### **Sub-Clause 4.20 Employer's Equipment and Free-Issue Material**

The Employer shall supply the Contractor with Employer's Equipment in accordance with the Specification. The Contractor is to pay for use of the Employer's Equipment and any disagreement will be determined under Sub-Clauses 3.5 and 2.5. A deduction of payment to the Contractor can be made under Sub-Clause 14.3(f).

The Contractor takes over responsibility of the Employer's Equipment during the time when the equipment is operated by the Contractor's Personnel. The risk placed on the Contractor is wide and onerous as it also includes the time when the Employer's Equipment is in the Contractor's possession or control. Any wear and tear or breakdowns which occur whilst it is in the Contractor's possession or control will be at the Contractor's risk even if the cause is due to some earlier use.

The Employer shall supply, free of charge, the “free-issue materials” (if any) in accordance with the details stated in the Specification. Free-issue materials are not captured within the definitions of Materials or Goods at Sub-Clause 1.1.5. The Employer shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them, and shall promptly give notice to the Engineer of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Employer shall immediately rectify the notified shortage, defect or default. The Contractor will be responsible for shortage, defect or default in material which it should have discovered on a visual inspection.

After this visual inspection, the free-issue materials shall come under the care, custody and control of the Contractor. The Contractor's obligations of inspection, care, custody and control shall not relieve the Employer of liability for any shortage, defect or default not apparent from a visual inspection.

The Employer is obliged to provide specified free-issue materials as covered by the Specification. The Employer is responsible for any shortages or other defaults although the Contractor is responsible for their care.

This provision will only come into effect if there is specific provision in the Specification. If the Specification is clear, the operation of this Sub-Clause should be straightforward.

Despite the fact that the Sub-Clause deals with free-issue materials, the Contract elsewhere contemplates that the Contractor may have to pay for these materials. Sub-Clause 2.5 [*Employer's Claims*] makes specific reference to the possibility that the Employer will wish to recover the cost. Should this be the case, the Engineer should not (without the Contractor's agreement) deal with any payments due under the Interim Payment Certificate Procedure, and nor should the Employer deduct any amount payable. Please refer to the discussion above in reference to Sub-Clause 4.19 [*Electricity Water and Gas*].

The Employer may be required to find alternative Employer Equipment or free-issue material for items which do not comply with the Specification otherwise the Employer may face cost implications if the Contractor is required to obtain the items for which the Employer is in default. To the extent of unavailability of Employer Equipment or Free-Issue Material which the Employer agreed to provide the Contractor will be entitled to claim an extension of time under sub-clause 8.4(e).

#### **Sub-Clause 4.21      Progress Reports**

A new requirement is introduced under Sub-Clause 4.21 for a Contractor's duty to report on its progress. Unless otherwise stated in the Particular Conditions the Contractor is required to provide the Engineer with monthly progress reports. The FIDIC Guide provides that the detailed monthly progress report "*is considered to be an essential part of competent project management*". Sub-Clause 4.21 sets out detailed requirements at paragraphs (a) to (h) of information which must be included in the reports. This task is onerous as the information to be disclosed is wide. Amongst other things the Contractor is asked to provide detailed descriptions of progress, equipment and personnel as well as photographs, charts, test results and other statistics. Information connected with environmental and public relation activities is also necessary.

If the reporting requirements are not all relevant to a particular project then the report content should be agreed early between the parties to remove any unnecessary obligations<sup>66</sup>. However the Contractor must also ensure that it complies with any relevant record keeping requirements under the applicable law.

The first report to be submitted after the Commencement Date should cover the period up to the end of that calendar month. Each report is to be submitted within 7 days of the end of the period it covers. The reports must continue until the completion of all work outstanding at the completion date stated in the Taking-Over Certificate in accordance with Sub-Clause 11.1. Although the progress report is submitted to the Engineer, there is no requirement for the Engineer to approve or agree the report. The parties should arrange for monthly progress meetings to allow the Engineer or the Employer to raise any items in the report which are queried. This may at early stages limit disputes from arising. Any issue of claim notices are likely to rely on the content of the reports and by that stage it would be better for the Contractor to have some idea regarding possible counterarguments and merits.

The Contractor must provide in its report comparisons of actual and planned progress with details of any events or circumstances which may jeopardise the completion in accordance with the Contract. The measures to be adopted to overcome the delays must also be provided, see paragraph (h). The important role of the programme under FIDIC is to allow monitoring of work progress in this comparative manner, actual against planned progress. In line with this, the Contractor also has the obligation under Sub-Clause 8.3 to submit revised programmes where inconsistent with the Contractor's actual progress. The Contractor should report on the methods and major stages in execution of the Works and give detailed estimates of resources required on site for each major stage.

The Contractor also has the onerous obligation to provide details of the progress of work carried out by nominated Sub-contractors. Collating and recording the full information required for Sub-contractor progress may be problematical (see paragraph (a)).

The Contractor in its application for an Interim Payment Certificate under Sub-Clause 14.3 is required to include the Sub-Clause 4.21 [*Progress Report*] as part of the supporting document to the Statement. The issue of an Interim Payment Certificate under Sub-Clause 14.6 by the Engineer to the Employer should not be withheld in the event that the Sub-Clause 4.21 [*Progress Report*] has not been submitted (or only submitted in part) as part of the supporting document to the Statement.

## **Sub-Clause 4.22      Security of the Site**

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<sup>66</sup> See FIDIC Guide

The Contractor is responsible for security on Site unless stated otherwise in the Particular Conditions. The Contractor is responsible for keeping unauthorised persons off the Site. The Sub-Clause limits authorised persons to Contractor and Employer Personnel and others authorised by the Employer or the Engineer. The means by which this is achieved is left to the Contractor and any particular requirements for controlling access to the Site should be set out in the Particular Conditions such as dividing the Site. In addition the Particular Conditions should include any additional requirements to control access to the Site. This is important where the Site is part of a larger site or where the project work is confidential. The Contractor's security obligation should be considered in conjunction with its obligations under the following Sub-Clauses which will be affected if the Contractor does not have full control of the Site<sup>67</sup>.

- Sub-Clause 4.6 [*Co-operation*].
- Sub-Clause 4.8 [*Safety Procedures*]
- Sub-Clause 17.2 [*Contractor's Care of the Works*]

Usually the Contractor is the only organization on Site full-time. Where the Employer has more than one Contractor on Site problems may arise as it may be difficult for the Contractor to identify and check employees and sub-contractor's other than the Contractor's own and the Employer's Personnel. In such circumstances the Employer should consider amending this provision to accept responsibility for security or alternatively ensure that detailed site security procedures are set out in the Particular Conditions or Specification.

### **Sub-Clause 4.23 Contractor's Operations on Site**

This Sub-Clause places an obligation on the Contractor to confine operations to the Site and to the additional working areas (obtained with agreement from the Engineer). The Contractor must keep its equipment and personnel off the adjacent land. The requirement to confine the Works to the above mentioned locations will also apply to other sub-contractors and personnel. This is similar to the requirement to provide Temporary Works to protect owners and occupiers of adjacent land and the no interference obligation towards the public under Sub-Clauses 4.8(e) and 4.14 respectively.

Many obligations imposed by this Sub-Clause apply only to works on Site. The Contractor is only required to keep the 'Site' free of unnecessary obstruction during Work execution. The obligation to remove rubbish and Temporary works is also only referred to in terms of the Site. This requirement is similar to the safety provision obligation at Sub-Clause 4.8(c). Sub-Clause 4.23 does not expressly impose these removal type burdens on the Contractor for the additional agreed working areas. The FIDIC Guide in fact makes clear that these obligations apply to the area of the Site which the Employer has made available for execution of the Permanent Works and to

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<sup>67</sup> Brian W Totterdill "FIDIC users' guide. A practical guide to the 1999 red and yellow books". See at page 144.

which the Plant and Materials are delivered. Permanent Works are not executed on the additional areas as they are not part of the Site. This does not mean to say that the additional areas do not contain Temporary Works (such as administrative offices) or do not suffer from deposition or wreckage resulting from carrying out the Works.

The Contractor is required to remove from the Site to which the Taking Over Certificate refers its equipment as well as rubbish and Temporary Works. This clearance obligation applies post issue of the Taking Over Certificate. The Taking Over Certificate cannot be withheld for the sole reason that the Contractor has failed to comply with its obligations during the execution of the Works under this Sub-Clause to clear and remove the same items (unless this prejudices safe use<sup>68</sup>). The obligation to remove various items may apply indirectly to the additional working areas upon issue of the Taking Over Certificate if the additional agreed areas are connected to the part of the Site taken over.

Once the Taking-Over Certificate is issued, the Contractor must evacuate the part taken over (leaving it in a clean and safe condition), except that any necessary Goods may be retained on the Site for the Contractor to fulfill its obligations during the Defects Notification Period (see Sub-Clause 11.7). The right to retain necessary Goods does not apply to the additional working areas. Given that the Contractor has the right to retain such Goods on the part of the ‘Site’ taken over by the Employer, the parties should agree on an area of the taken over part of the Site where the Contractor can store the Goods.

#### **Sub-Clause 4.24 Fossils**

Geological or archaeological items of value or interest found on the Site must be surrendered to the Employer or otherwise placed under his authority. The Contractor shall take steps to preserve them and will promptly give notice of the find to the Engineer and follow his instructions. If these cause delay or Cost and he gives a further notice to the Engineer, the Contractor will be entitled to an extension of time and reimbursement of his Cost.

The 1999 edition has replaced the concept of the Employer owning any items of archaeological value with one of his being custodian for their care. It also now requires the Contractor to provide the Engineer with an initial written notice of such finds and a further written notice of any possible delay and Cost if the Contractor wishes to claim these.

The purpose of this clause is to ensure that items of interest are “*placed under the care and authority of the Employer*” so that ownership or entitlement or the best means to deal with them may be established in accordance with local law. The law may protect ancient monuments, archaeological artefacts or geological deposits and provide penalties for their damage or removal. A Contractor would have incentive to

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<sup>68</sup> See FIDIC Guide

hide such discoveries if he would suffer financially as a consequence of their discovery. For this reason, many standard forms of contract have a fossils or antiquities clause placing the financial risk of such discoveries on the Employer. Notably however, the Contractor is not entitled to receive profit under this Sub-Clause.

The Contractor's entitlement to an extension of time and costs however depends upon the relevant delay and the costs arising as a result of "complying with the instructions" of the Engineer and also upon his giving a Sub-Clause 20.1 notice to the Engineer. One would expect the Engineer to give instructions to the Contractor equally as promptly as the Contractor is required to give notice of the initial find to the Engineer. If this does not occur, the Contractor might suffer. For example, if critical work stops whilst the Engineer is informed of the discovery and decisions are made, possibly after bringing in experts to examine the archaeological context, and the result is only an instruction by the Engineer to proceed because the "find" proves to be a false alarm or of no significance, the Contractor will apparently be entitled to no extension of time or Cost. However, under Sub-Clause 8.4 (e), the Contractor is entitled to an extension of time if delayed by "any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel (which includes the Engineer) or the Employer's other contractors on the Site.

The FIDIC P&DB and EPCT contracts contain an equivalent clause in identical terms.

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