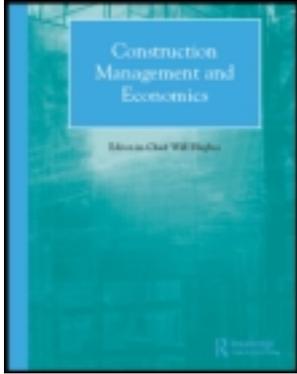


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The engineer under FIDIC's conditions of contract for construction

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FIDIC has over the years produced standard forms of contracts for the international procurement of projects. A source of continuing criticism of its Red Book concerns the duality in the traditional role of the engineer as the employer's agent and as an independent third party holding the balance fairly between the employer and the contractor. In response to this and other criticisms FIDIC produced a replacement for it in 1999. The role of the engineer under the new Red Book is critically examined in the light of relevant case law, expert commentaries and feedback from two multidisciplinary workshops with international participation. The examination identified three major changes: (1) a duty to act impartially has been replaced by a duty to make fair determination of certain matters; (2) it is open to parties to allow greater control of the engineer by the employer by stating in the appropriate part of the contract powers the engineer must not exercise without the employer's approval; (3) there is provision for a Dispute Adjudication Board (DAB) to which disputes may be referred. Although the duality has not been eliminated completely, the contract is structured flexibly enough to support those who wish to contract on the basis of the engineer acting solely as the agent of the employer.

Keywords: Contract, Dispute Adjudication Board, engineer, FIDIC

Introduction

FIDIC has over the years produced standard forms of contract for procurement of projects internationally. Its *Conditions of Contract for Works of Civil Engineering Construction* (FIDIC, 1987), known widely as the 'Red Book', was frequently used because of its adoption by the Multilateral Development Banks (MDBs), including the World Bank, in their procurement rules. It was essentially a modified version of the fourth edition of the Conditions of Contract of the UK's Institution of Civil Engineers (ICE). Its provision for administration of the contract by an engineer in the UK contracting tradition has been the subject of persistent criticism of the contract.

Traditionally, the architect/engineer (A/E) under the UK contracting system and associated systems has performed duties and exercised contractual powers in two separate capacities (see for example *Sutcliffe v. Thackrah* [1974] AC 727 at p. 737a–d; *Costain Ltd and*

Others v. Bechtel Ltd and Others [2005] EWHC 1018). With respect to some duties and authorities, he/she is an agent of the employer. Therefore, the contractor may treat any default by the engineer in the performance of such duties as a default by the employer. Examples of duties to which the agency status applies include provision of drawings and other information and issue of payment certificates. With other duties, the engineer is a neutral and independent third party professionally trained in holding the balance fairly between the contractor and the employer. The employer is not answerable to the contractor for defective performance of the latter group of duties although the contractor may, by invoking the applicable dispute resolution procedure, challenge the engineer's exercise of discretion in the performance of such duties. Examples are assessment of claims, valuation of variations, measurement and valuation for payment. It is the employer's breach of contract only if the engineer fails totally to perform these duties. However, it is not a breach if the engineer performs them wrongly or even negligently.

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The independence of the engineer under the old Red Book was given contractual expression in sub-clause 2.6, which required the engineer to be impartial in exercising professional discretion in decision making. The concept of the engineer as an independent and impartial party is unknown in continental and other civil law systems under which the contract administrator is an agent for the employer in all aspects. The main argument against the concept is that many factors create an unavoidable conflict of interest in most of the situations where the engineer is required to act as an independent and impartial third party (Goedel, 1983; Mortimer-Hawkins, 1984; Westring, 1984; Kristensen, 1985; Myers, 1985; Lloyd, 1986; Rubino-Sammartano, 1986; Seppala, 1986; Nicklish, 1990; Hughes, 1996; Bowcock, 1997; Hughes and Shinoda, 1999). The most commonly cited aspects of this conflict include: the engineer is usually also the designer of the works; the engineer is often the author of the problem being dealt with, such as delay in providing design and other information and variations to resolve design errors; the employer is the engineer's paymaster and can terminate the appointment at any time; the engineer may be looking for future work from the employer. Furthermore, some employers from developing countries expressed doubts as to the ability of the engineer to act impartially, as both the engineer and the contractor are usually from the developed world and may have developed relationships working together on previous projects (Bowcock, 1997, p. 50).

The UK has not been without some scepticism regarding the engineer's independence. The Latham Report concluded, from wide consultation within the UK construction industry, that the concept of an impartial A/E as contract administrator does not relate easily to 'the reality on modern construction sites' (Latham, 1994, p. 36). The ICE itself has developed a contracting model that abandons the traditional concept of the A/E. In its Engineering and Construction Contract (ICE, 1995) the traditional role of the A/E has been divided up and allocated to four separate post-holders: a project manager managing the contract to achieve the employer's overall objectives; a supervisor monitoring the work with the aim of ensuring compliance with the contract; an adjudicator jointly appointed and paid by the contractor and employer to decide disputes arising from the contract; and the employer's designer. All the post-holders except the adjudicator are fully agents of the employer.

From the mid-1990s a decision was taken that the contracts needed to be changed fundamentally and that this could not be achieved by the usual amendment (Bowcock, 1998). This decision led to the publication in 1999 by FIDIC of four sets of new forms of contracts employing new concepts and terminology, including

the *Conditions of Contract for Construction* (FIDIC, 1999), the replacement for the Red Book. As with the old Red Book, the new Red Book provides for an engineer as contract administrator. This paper presents a critical analysis of the role of the engineer under the new Red Book. The paper also identifies some aspects of the role that some stakeholders have been reported to amend. It is not part of the purpose of the paper to examine the impact of such amendments as the specific wordings of the amendments are likely to vary from contract to contract.

Research methods

The work is based on a critical review of case law and general literature on the role of the engineer under the UK contracting system and under the FIDIC contract: application of the principles of construction of legal documents to the new Red Book and examination of its provisions in the light of problem situations highlighted in case law and published commentaries by expert practitioners. This part of the study resulted in tables summarizing the duties and powers of the engineer under the contract. They fall into five categories: (1) design; (2) quality control; (3) communication of information to the parties; (4) certification; (5) determinations.

A particular concern of the research team was that sensitivities about disclosure of information concerning private contractual matters would impede access to the relevant knowledge. In the light of such sensitivities the research team concluded that the most appropriate method of gathering the relevant knowledge was to run multidisciplinary workshops in which issues of concern in relation to the engineer's role are identified and critically examined by international and multidisciplinary participants in contexts not associated with particular transactions. To create an environment of trust an international network of users of and experts on the FIDIC contract documents has been established. The website (www.fidic-net.org) developed for the network supports online debate on identified issues, and face-to-face workshops provide opportunities for exploring the issues in more depth.

The role of the engineer was examined in the first two workshops of the network. Stakeholders that participated in the first workshop came from six different countries and included senior management from Multilateral Development Banks (MDBs) and international consulting engineers, partners of international construction law firms, international contract consultants, international contract training organizations and members of FIDIC's Contracts Committee.

There were 26 participants, most of them possessing more than 30 years' experience from direct involvement in international contracting. Twenty-five participants of generally comparable profiles in terms of experience and geographical representation attended the second workshop.

Each workshop began in a base workshop room with introductory presentations on the 1999 editions of the FIDIC family of contracts, the aims and objectives of the research project and of the FIDIC-NET Network and the aspects of the contracts to be considered in the particular workshop. The first workshop was focused on the changes introduced in the new Red Book, particularly the role of the engineer and the participants' experience of amendments made to the contract. The second workshop focused on unforeseeable site conditions and time management. As the engineer is a key player in relation to these matters, it was inevitable that some comments were also made in the second workshop about the engineer's role.

After the introductory presentations the participants broke up into groups of five or six members in separate rooms. There was a rapporteur in each group with responsibility for facilitating the group discussions, keeping them limited to the issues relevant to the aims of the particular workshop, and preparing a group report for presentation to the reassembly of the all participants in a final general session. The members of each group were invited to correct or add to the report presented by their rapporteur. Comments were then invited from the participants who were not members of that group. The researchers took notes of the discussion, from time to time interjecting to require clarification or inviting additional comment. The reports of the rapporteurs (in flipchart form) and the notes were then analysed using the constant comparison technique.

Appointment/replacement of the engineer

The old Red Book did not allow expressly for replacing the engineer. FIDIC justified this policy based on a perceived need to safeguard the contractor's expectations on the level of integrity and competence in the administration of the contract developed on the basis of the identity of the engineer stated in the tender documentation (FIDIC, 1989, p. 38–9). Under the new Red Book the employer has express authority to replace the engineer for any reason whatsoever, subject only to two procedural requirements stated in clause 3.1. First, the employer must notify to the contractor the name, address and relevant experience of the intended replacement not less than 42 days before the intended date of replacement. Second, the replacement

must not be a person against whom the contractor has raised reasonable objections. An objection based on clear evidence that the nominee lacks the competence necessary to perform the role properly would ordinarily be considered reasonable.

It would appear that the contractor may raise objections at any time before the replacement becomes effective and that if the contractor fails to do this, the right to object is lost upon the appointment. Many standard forms, as a strategy for avoiding delays from late objections, specify a time within which the contractor may raise objections.

Where the engineer ceases to act unexpectedly because of death or other reasons, administration of the contract could grind to a virtual halt unless the engineer had delegated certain functions such as certification of interim payment. This can be compounded by objections from the contractor and ensuing disputes as to their reasonableness. Furthermore, where there is a late objection on reasonable grounds, the period of 42 days would start all over again with a new prospective replacement engineer. Such delay would be in neither party's interest. Cash flow would dry up for the contractor since interim payment certificates cannot be issued. The employer may have to meet claims founded on delayed issue of instructions, drawings and the like.

There are a number of possible ways of reducing this risk of disruption on account of having to replace the engineer. For example, a consulting engineering firm or a duty post-holder in the employer's organization, rather than a named natural person, may be specified in the contract as the engineer. The new Red Book allows for this in the first paragraph of sub-clause 1.1: 'words indicating persons or parties include corporations and other legal entities'. An alternative is to provide a list of possible replacement engineers in the specification and deleting the contractor's right to object to any replacement from the list.

It was reported by participants in the first workshop that one of the most common amendments to the new Red Book gives the employer absolute power to replace the incumbent engineer, i.e., the contractor's right under sub-clause 3.1 to raise reasonable objections to the replacement is removed. Some of the participants were of the view that, in the light of the provision in that sub-clause that the engineer is an agent of the employer unless stated otherwise in relation to the relevant issue, there is nothing particularly objectionable about this type of amendment. Furthermore, it ensures smooth replacement of the engineer where such action is necessary. However, it also has implications for the likely perceptions of the fairness of the engineer's sub-clause 3.5 determinations.

This type of amendment appears to have received the endorsement of the MDBs because under the MDB harmonized edition of the Red Book published soon after the first workshop, the employer is only to give full and fair consideration to any objections raised by the contractor to the replacement. Exactly what amounts to 'full and fair consideration' is likely to be hotly debated. There is the further related question of whether the employer is entitled, for whatever reason, to go ahead with the appointment where such consideration shows that the contractor's objections are reasonable.

Many employers would claim an entitlement in principle to go ahead with the appointment in the face of reasonable objections. The likely response of contractors would be that such a course of action would amount to failure to give 'fair' consideration to the objection. If there is an entitlement to appoint in the face of objections, the need for such a provision is doubtful, as many employers would consider reasonable objections seriously in any case. Maybe it is intended as a reminder of good practice only. It has to be asked whether the value of such a reminder outweighs the risks of disputes as to the employer's entitlement to proceed with the appointment in any event.

Another change in the MDB harmonized edition is that the minimum notice required for the replacement to take effect is 21 days. This change is likely to be welcomed by contractors, as many would find even a month without an engineer on the job unacceptable. In particular, the contractor would face difficulties with getting interim payment without the engineer being on board to issue relevant certificates.

A very recent English decision suggests that, where the engineer originally specified in the contract is an organization independent of the employer, there would be no power to replace the original engineer with the employer's organization. In *Scheldebouw BV v. St James Homes (Grosvenor Dock) Ltd* [2006] EWHC 89 the party to perform the role of construction manager on a project on which the construction management procurement method was used was stated as 'Mace Ltd. or any further or other person notified in writing by the employer to the trade contractor from time to time'. The functions of the construction manager under the contract between the parties included most of the matters subject to the sub-clause 3.5 procedure under the new Red Book, e.g. ascertainment and certification of loss and expense claims, granting of extension of time and certification of interim payment. On a preliminary issue on whether, after ending the appointment of Mace Ltd, St James Homes (the employer) was entitled to appoint itself as the construction manager, Jackson J. held that there was no such entitlement. One

of his reasons was that it is so rare for an employer under a construction contract also to be the certifier that only an express term to that effect would entitle an employer to assume such a function. There was no such provision in the contract.

By corollary, it would appear that where the original engineer under the Red Book is a named person from a consulting engineering firm the employer would have no power to appoint its directly employed employee as a replacement. It is also arguable that there is no power unless the original engineer was such an employee and that objections to appointment of the employer's employees in such circumstances are likely to be found reasonable.

Engineer's determinations

Some attempt at movement away from the independent role of the engineer is discernible in the new Red Book. There would appear to be now no requirement for the engineer to 'act impartially' although it is questioned later in the paper whether this duty has not been reinstated by a 'new' duty to make 'fair determinations'. Clause 3.1 of the new Red Book provides, *inter alia*, that '*except as otherwise stated in these Conditions, whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Engineer shall be deemed to act for the Employer*'. It may therefore be concluded from the highlighted text that the duality in the role of the engineer has not been abandoned completely. One area of decision making where it is clear that the engineer does not act as the employer's agent is where the engineer is required to proceed in accordance with sub-clause 3.5. Most the matters subject to the sub-clause 3.5 determination procedure are claims by the employer and the contractor against each other. Sub-clause 3.5 states:

Whenever these Conditions provide that the Engineer shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Engineer shall consult with each Party in an endeavour to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances. The Engineer shall give notice to both Parties of each agreement or determination, with supporting particulars. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [*Claims, Disputes and Arbitration*].

Under the old Red Book the engineer also had responsibility for deciding the matters now subject to the sub-clause 3.5 procedure. In making such decisions

the engineer was obliged to do so after 'due consultation' with both parties. A party dissatisfied with the engineer's decision could refer the matter back to the engineer as a dispute under clause 67 for a decision within 84 days after such referral.

Under the new Red Book the engineer's duty is to 'consult with each party in an endeavour to reach agreement'. Failing agreement the engineer is to make a fair determination of the matter. For parties and engineers steeped in the use of the earlier editions of the Red Book the importance of knowing the differences in the way the engineer is to make decisions as an independent third party cannot be overstated. In particular, they need to know:

- (1) the differences between the engineer making 'fair determinations' as required by the new Red Book and exercising professional discretion impartially as required under the previous one;
- (2) the steps required of the parties and of the engineer to discharge the engineer's duty to 'consult with each party in an endeavour to reach agreement';
- (3) the timetable for sub-clause 3.5 determinations;
- (4) whether there is a duty to determine fairly matters not expressly subject to the sub-clause 3.5 procedure.

Making fair determinations/exercising discretions impartially

The question is whether the change to a duty to make fair determinations under the new Red Book addresses the concerns regarding the requirement in the old Red Book to act impartially on certain issues. The *Oxford English Dictionary's* definition of 'impartial' in such a context is 'not favouring one party or side more than another; unprejudiced; unbiased; fair; just; equitable'. The same dictionary has more than three pages of different nuances of meaning for the term 'fair'. The meaning most applicable to the engineer's role include: 'free from bias, fraud, or injustice; equitable; legitimate' and 'affording an equal chance of success; not unduly favourable or adverse to either side'. There is therefore considerable overlap in meaning between the terms. However, while the old Red Book sought to regulate the process of making the decision, the new Red Book requires the decision itself to be fair. The changes have been referred to as a 'temporary uneasy compromise' (Corbett, 2000, p. 255) and 'tinkering with the role of the engineer without, in substantive terms, addressing the continuing dichotomy between the agent and certifier' (Hoyle, 2001, p. 11). From the initial reaction

from these and other expert commentators, there is some risk of disputes as to the exact nature, extent and impacts of the change.

Consultations with the parties

The engineer's duty to 'consult with each party in an endeavour to reach agreement' could be interpreted differently in terms of the specific actions required of the engineer. One interpretation is that the engineer is to make a provisional determination, present it to the parties and implement the outcome agreed to by both parties. Failing agreement, the engineer makes and implements a final determination taking into account the parties' comments on their merits.

The requirement for an 'endeavour to reach agreement' suggests that the engineer is to adopt a more proactive role. Indeed, according to another interpretation, the engineer is to act as a sort of mediator or conciliator but with two main distinctions from the common understanding of these types of third party resolution methods: while mediators and conciliators are usually neutral parties, the engineer can hardly be said be that; while mediators and conciliators make non-binding recommendations, the engineer's determination is binding pending the decision of a DAB or an arbitration tribunal (Nisja, 2004). For mediation or conciliation by the engineer to be effective, the employer must have a clear position on the matter of interest against which that of the contractor is compared to identify areas of disagreement for amicable settlement. Ideally, the employer must have adequate professional resources independent of the engineer to collect project information that will allow the employer to be as well informed as the contractor and the engineer concerning the matter being determined.

Traditionally, however, employers have not been required to retain such independent resources. Instead, there has been reliance upon the engineer to ensure that the contractor gets only its entitlements under the contract. An employer without access to professional expertise independent of the engineer's would expect to be advised by the engineer on the merits of the contractor's case. If this advisory function is to be exercised when making sub-clause 3.5 determinations the integrity of any process of mediation or conciliation is likely to be seriously impaired.

Timetable for determinations

Where the matter to be determined is a contractor's claim for extension of time or additional payment for which a sub-clause 20.1 notice is served the timetable

for the procedure would be as specified under that sub-clause. The contractor must submit a fully particularized claim within 42 days after the date of awareness of the causative event or circumstance. This period may be extended subject to the engineer's approval of the extension. The full claim must contain particulars on its quantum and legal justification. The engineer must respond to a particularized claim with approval or disapproval within 42 days after receiving it or receipt of further particulars supporting it. It is not obvious what 'approval' in this context means. As it is also stated in the penultimate paragraph of sub-clause 20.1 that the engineer is to follow the sub-clause 3.5 determination procedure to agree or determine the contractor's entitlement to extension of time and/or additional payment, it is arguable that 'approval' refers to the engineer's acceptance in principle only of the entitlement asserted by the contractor's notice and that the sub-clause 3.5 procedure applies only to quantum matters. A problem with this construction is that there is then no time limit for completion of the sub-clause 3.5 procedure.

Alternatively, the draftsman may have intended 'approval' as the advice to the contractor on the outcome of the sub-clause 3.5 consultation/determination process. This construction of sub-clause 20.1 has the advantage of a definite timetable within which sub-clause 3.5 determinations triggered off by a sub-clause 20.1 notice must be completed. A counterargument against this construction is that it lays down a timetable for sub-clause 3.5 procedure for only the contractor's time and money claims. No definite timetable is provided where the matter for determination is an employer's claim against the contractor. Also, approval in that sense would be redundant as sub-clause 3.5 requires the engineer to give notice to both parties of their agreement or of the engineer's determination.

Matters not expressly subject to sub-clause 3.5

The contract is extensively and meticulously annotated with 'the Engineer shall proceed in accordance with sub-clause 3.5 to agree or determine' against provisions for various matters. Such express requirement for fair determination of some matters raises the question whether the engineer may make an unfair determination of any matter not expressly stated to be subject to the sub-clause 3.5 procedure. Commenting on this question, Corbett (2000, p. 255) is of the view that, if challenged by the contractor that a determination is unfair, the engineer would be entitled to respond: 'but we don't have to be fair'. Such an approach is unlikely

to assist the employer if the matter is referred as a dispute to the DAB or an arbitrator because any of these tribunals would be expected to determine the matter fairly in accordance with the contract. It could however be an effective defence for the engineer against an employer's action to recover any loss suffered as a consequence of the engineer's unfair determination.

The employer's control over the engineer

Probably in response to the criticism from civil lawyers, the Red Book provides a mechanism for cutting back the independence of the engineer where the parties are to contract on such a basis. The third paragraph of sub-clause 3.1 of the new Red Book states:

The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the approval of the Employer before exercising a specified authority, the requirements shall be as stated in the Particular Conditions. The Employer undertakes not to impose further constraints on the Engineer's authority, except as agreed with the Contractor.

The MDB harmonized edition states in the general conditions that the engineer is not to exercise certain authorities without the approval of the employer. These are:

- (1) agreeing or determining extension of time or additional cost to which the contractor is entitled on account of encountering unforeseeable physical conditions;
- (2) issuing a variation instruction unless either the issue is in response to some emergency or the variation will not increase the contract price by more than a ceiling amount stated in the contract data;
- (3) accepting a value engineering proposal;
- (4) specifying the currencies of any adjustment to the contract price for a variation.

Thus, under both versions of the Red Book, the employer is given free rein as to the extent of control over how the engineer's role is performed provided the particular conditions state the powers the engineer is not to exercise without prior approval of the employer.

It is suggested in the *FIDIC Contracts Guide* that, in pricing their tenders, tenderers are likely to take into account the stated degree of the employer's control over the engineer (FIDIC, 2000, p. 82). Such limitations could also cause delays for which the contractor may be entitled to submit claims. For example, the engineer may be unable to provide drawings, instructions or other information requested by the contractor

under sub-clause 1.9 if awaiting the employer's written approval. Furthermore, where the engineer issues such information without prior approval by the employer the contractor may put the information to its intended use without waiting for the employer's approval. This proposition is supported by the statement in sub-clause 3.1 that the employer would be deemed to have approved the engineer's exercise of the relevant authority. However, it is arguable that the contractor may elect to wait until there is evidence of such approval and that there could be entitlement to claim more time and money for any consequent delay.

The employer's undertaking not to impose further constraints on the engineer's authority without the contractor's agreement is absent from the MDB harmonized edition. Instead, the employer may make any changes to the engineer's authority provided prompt notice of such changes is given to the contractor.

Dispute resolution and the engineer

In an attempt to address the conflict of interest objection to the engineer and also provide a wider pool of expertise and skills for effective dispute resolution, the new Red Book provides for a DAB comprising either one or three suitably qualified persons. Where either party is dissatisfied with the determination of the DAB, as in the Red Book, arbitration may be embarked upon after 56 days if during that time the parties have failed to resolve their dispute by amicable settlement.

Two issues in particular call for some comment. First, has the role of the engineer as the first instance tribunal been eliminated as often claimed? The second issue concerns the engineer as a sole-member DAB.

The engineer as the first instance tribunal for disputes

Under English law and other jurisdictions, a dispute crystallizes when the parties fail to agree. It is therefore arguable that the engineer, in making fair determinations, acts as a tribunal of first instance. However, pending the engineer's determination, there is no provision that stops immediate reference of the dispute to the DAB although the intention is probably that the parties are to wait until the engineer's determination. The fact that, other than in relation to time and financial claims notified under sub-clause 20.1, there is no express time limit within which the engineer must make a determination, may provide the contractor with an incentive to refer the matter to the DAB. The incentive would be particularly irresistible where there

is a history of the engineer failing to act with due expedition or the contractor has serious doubts as to the engineer's ability to make fair determinations. Perhaps the intention is that the dispute resolution process is to operate as just described and that the engineer, as a matter of practicality, imposes a determination that must be complied with to avoid the impasse that would otherwise reign pending the decision of the DAB.

On any interpretation of the sub-clause 3.5 procedure, there is no doubt that the dispute resolution role of the engineer has been reduced considerably. However, probably to the disappointment of the critics of the traditional engineer's role, the engineer is still involved in a capacity other than as an agent of the employer. Whether the reduction is sufficient to silence such critics remains to be seen although, to the many large contractors from civil law jurisdictions involved in international construction, this debate may be only academic, as most of them are now flexible enough to operate comfortably with or without an engineer in the traditional role (Einbinder, 1994).

The engineer as a DAB

It is contemplated in the *Guidance to the Preparation of Particular Conditions*, provided as part of the New Red Book, that contractual parties from common law jurisdictions may opt to retain the traditional concept of the engineer as contract administrator by appointing the engineer as a sole-member DAB where the engineer is an independent consulting engineer. The contract is to be amended accordingly. The sample clause provided requires the engineer, when acting as DAB, to act 'fairly, impartially and at the cost of the Employer'.

Dispute resolution by a sole-member DAB shares most of the attributes of adjudication under the UK's Housing Grants, Construction and Regeneration Act 1996. Under this legislation a party to a construction contract has a right to refer at any time any dispute under the contract to adjudication. The adjudicator is appointed either by agreement or by nomination by an adjudicator nominating body. The adjudicator is under a duty to act impartially and to reach a decision within 28–42 days after the dispute is referred. Therefore, the only material distinctions are the statutory backing for adjudication and the fact that the adjudicator must reach a decision within a much shorter timetable than a DAB, which is allowed 84 days.

Experience of adjudication in the UK throws some light on the role of the engineer as a sole-member DAB. Two particular issues deserve comment in this respect. The first concerns whether there is a duty on the

engineer to comply with the rules of natural justice. An adjudicator must comply with the rules of natural justice to the extent possible within the time constraints of adjudication (*Amec Capital Projects Ltd v. Whitefriars City Estates Ltd* [2004] EWCA Civ 1418). It has been decided by English courts that, although the engineer must act fairly and independently in the traditional role as first instance tribunal under the equivalent of clause 67 of the old Red Book, there is no obligation to comply with the rules of natural justice (*London Borough of Hounslow v. Twickenham Garden Developments Ltd* [1971] 1 Ch 233; *Amec Civil Engineering Ltd v. Secretary of State for Transport* [2005] BLR 227; *Scheldebouw BV v. St James Homes (Grosvenor Dock) Ltd* [2006] EWHC 89). However, by analogy with adjudicators, the engineer acting as a sole-member DAB would be expected to comply with the rules of natural justice.

The second issue concerns the ability of the engineer *qua* DAB even to comply with the narrower obligation only to act fairly and impartially. The test of bias applicable to courts and adjudicators is whether the 'circumstances [alleged to give rise to bias] would lead a fair-minded and informed observer to conclude that there was a real possibility, or a real danger, the two being the same, that the tribunal was biased' (*Porter v. Magill* [2002] 2 AC 357; *Amec Capital Projects Ltd v. Whitefriars City Estates Ltd* [2004] EWCA Civ 1418).

Discounting all the conflicts of interest already highlighted, it has to be asked whether the fact of the engineer having already decided a matter as part of the sub-clause 3.5 procedure would not lead a fair-minded observer to conclude that there is real danger of the engineer *qua* DAB being predisposed to make a decision consistent with an earlier sub-clause 3.5 determination. In *Glencot Development and Design Co. Ltd v. Ben Barrett (Contractors) Ltd* [2001] BLR 207 (hereafter *Glencot v. Barrett*) an adjudicator appointed to adjudicate upon a dispute was invited by both parties to act as mediator first. The mediation failed to resolve the dispute fully. The mediator then resumed his role as an adjudicator and made a decision on the outstanding issues. It was held that there was such a risk of bias from the earlier mediation that his subsequent decision as adjudicator could not be enforced.

However, the courts have also stated that adjudicators, particularly those from professional backgrounds, are perfectly capable of changing their minds on new facts and that the fact of having decided the same dispute on a prior occasion would not necessarily predispose them towards making the same decision if the matter were referred to them again but in a different context (see for example *RG Garter Ltd v. Edmund Nuttall Ltd* [2002] BLR 359; *Amec Capital Projects Ltd v. Whitefriars City Estates Ltd* [2004] EWCA Civ 1418).

It may be that *Glencot v. Barrett* can be distinguished as applicable to situations where the adjudicator had *ex parte* communications with one side, as would have happened in his role as mediator, or where there was no agreement by the parties on the dual role.

The engineer as a DAB would therefore be appropriate only where the relationship between the contractor and the employer is very good; there is genuine common intention to comply with decisions of the engineer *qua* DAB pending the outcome of any reference to arbitration; and both parties have confidence in the professionalism, competence, impartiality and integrity of the engineer.

Conclusions

In response to criticism and modern developments some attempt has been made by FIDIC to move away from the traditional concept of the engineer in three directions. First, it is provided expressly in the contract that the engineer is deemed to act as an agent of the employer unless in relation to any particular duty or power a different capacity is indicated. Second, parties who wish to contract on the basis of further reduced independence of the engineer may do so by stating in the Particular Conditions the powers the engineer is not to exercise without the employer's approval. Third, the contract provides for a DAB to which the parties may refer any dispute, including any dissatisfaction with the engineer's determinations. The DAB's decision must be implemented pending final resolution of the dispute by arbitration.

There may be disappointment in some quarters that FIDIC has not gone all the way to provide that the engineer is to act as the agent of the employer in relation to everything done as contract administrator. However, there is sufficient flexibility in the structure of the contract to support appropriate amendments where parties wish to contract on the basis that the engineer is to act solely as the employer's agent.

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