



NEC CONTRACTS: PROGRAMMING, PROJECT MANAGEMENT AND PRICING – HAVE THEY STOOD THE TEST OF TIME?

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A Introduction

We have now reached the milestone of twenty years since Sir Michael Latham's review of procurement and contractual arrangements in the UK construction industry. This review concluded with the publication of *Constructing the Team*, usually referred to as 'the Latham Report'.¹ The final Latham Report proposed and supported the use of the New Engineering Contract (NEC), and this paper now considers the changing use and development of the NEC in the light of those proposed reforms. Consideration is also given to recent developments as well as potential future changes in practice.

Touching briefly on the Latham Report, this paper then introduces the NEC generally (section B), before focusing on most of the distinctive aspects of NEC3: project management (section C), programming (section D), pricing (section E), compensation events and the time bar (section F), assessing compensation (section G) and disputes (section H).

The Latham Report

In 1993, Sir Michael Latham was given the task of investigating and writing a report detailing how the construction industry could work more effectively. The report was commissioned at a time when the UK construction industry was recovering from a recession, which contrasted starkly to the post-war years that had seen the construction industry boom. The situation was grim. Latham himself described the industry as 'ineffective', 'adversarial', 'fragmented' and 'incapable of delivering for its customers'.

In response to the situation, Latham set out in *Constructing the Team* what he called 'radical' recommendations to help steer the construction industry out of its slump. At the core of his report were the concepts of teamwork, collaborative working, partnering and efficient dispute resolution. Latham believed that by implementing a legal structure bound by incentives, both client and builders would begin to effectively collaborate and profit in the long run.

1 Sir Michael Latham, *Constructing the Team: Final Report of the Government /Industry Review of Procurement and Contractual Arrangements in the Construction Industry* (HMSO, 1994).

By establishing construction councils, checklists and a variety of government led construction bodies, the effect of this report were felt across the construction industry. Together, these uniform codes and basic contractual principles were quickly hailed as revolutionary and their adoption widely viewed as being the panacea that would help resurrect the construction industry in the 1990s and early 2000s.

Latham's report has since been supported by a number of further published reports, including the Egan Report in 1998 and the *Government Construction Strategy* in 2011.² The NEC is a key feature in the Latham Report, and although his report only helped to publicise its existence, these forms of contracts have become an important part of the construction industry as we know it today. By encapsulating Latham's recommendations, the NEC has helped pave the way for a construction industry built on teamwork and mutual trust.

B NEC overview

The NEC was a major attempt to draft a simple and direct standard form contract from first principles, without building on existing standard forms. The authors of the NEC, gathered under the auspices of the Institution of Civil Engineers, were principally led by Dr Martin Barnes. The specification prepared by him in 1987 set out the aims for the NEC:

- Achieve a higher degree of clarity than existing contracts
- Use simple commonly occurring language and avoid legal jargon
- Repeat identical phrases, if possible
- Produce core conditions and exclude contract specific data, to avoid the need to change the core terms
- Precisely and clearly set out key duties and responsibilities
- Aim for clarity above fairness
- Avoid including details which can be more adequately covered in a technical specification.

In summary, the NEC's core principles were intended to be:

1. Flexibility;
2. Simplicity and clarity; and
3. A stimulus for good management.³

One of the most noticeable features of NEC is its use of short direct clauses. The simplicity of language aims to reduce the occurrence of disputes. There have been three editions of the NEC contract: the first in 1993 and the second

2 Construction Task Force (chair: Sir John Egan), *Rethinking Construction* (DETR, 1998): <www.constructingexcellence.org.uk>; see also Cabinet Office, *Government Construction Strategy* (2011): <www.gov.uk/government/publications>.

3 See NEC3, Engineering and Construction Contract Guidance Notes: <www.neccontract.com>.

in 1995. Partly as a result of Sir Michael Latham's recommendations, and to allow some general tidying up of the drafting, in its third edition the NEC was re-branded as the 'Engineering and Construction Contract'. The publisher was, in effect, attempting to make it clear that the contract was equally applicable to the wider construction industry, rather than just the engineering sector. It also added some new documents to the NEC family, including a professional services and adjudicator's contract, but the major change was simply a cosmetic re-branding; despite that, the third edition is often known as NEC3.⁴

In November 2006, some corrections were necessary as a result of typographical errors that had been identified in the third edition, and amended versions of the NEC3 documents were issued by way of correction. In September 2011, further amendments to the third edition were made to reflect the coming into force of Part 8 of the Local Democracy, Economic Development and Construction Act 2009.⁵ The amendments made revisions to both the adjudication and payment provisions. The adjudication amendments appear at Option W2, or in the short contracts by way of additional conditions. The payment amendments appear at Option Y(UK)2, or again in the short contracts by way of additional conditions.

The changes introduced by the 2009 Act may be summarised as follows:

- Section 108(3A) requires that the contract must include a written provision for the correction of slips, and an amendment was necessary to refer to the correction of any typographic errors, clerical mistakes or ambiguity.
- A new section 108A was added to deal with the allocation of the costs of the adjudication which renders any provision restricting the power of the adjudicator to allocate his fees ineffective unless it is made after the giving of a notice of intention to refer. Option W2 was amended to give the adjudicator the power to allocate his fees and expenses between the parties.
- Section 110A makes substantial amendments to the previous arrangements in relation to payment notices. Where payment follows the issue of a payment certificate, the certificate and details of how the payment was calculated must be issued together, and these must be defined as the payment notice. Where payment is made without the issue of a certificate, the contractor's application or consultant's invoice will constitute the payment notice. Further, the timing of issue of the payment notice must be fixed in relation to the payment due date and may not be issued later than five days after the due date.

4 NEC3: *Engineering and Construction Contract* (April 2013): <www.neccontract.com>. The acronyms NEC and NEC3 are used throughout this paper. Quotations from NEC3 contract clauses preserve the typographical style of the original, in which words in italics with initial capital letters are defined terms; a term all in lower case italics is defined in the Contract Data.

5 Amending Part II of the Housing Grants, Construction and Regeneration Act 1996.

- Section 111 replaces the notice of intention to withhold payment with a requirement to pay the notified sum or give notice of any intention to pay less. The terminology and timing are revised in NEC3 contracts to comply with this new provision.
- Section 111(9) introduces a provision requiring payment to be made within seven days of a decision by the adjudicator which increases the amount due under any payment notice. This conflicts with the 14 day period for correcting clerical errors set out in Option W2, and Option W2 is therefore amended to change the 14 day period to five days, and to require payment of the amount determined by the adjudicator within seven days of the adjudicator's decision.
- Section 112 includes a right for the contractor to recover the costs of suspending performance due to non-payment of amounts due. By including suspension as a compensation event, the main NEC3 contracts already comply with this requirement. The short forms do not include any right to suspend, and they were therefore amended to identify suspension as a compensation event. The assessment is carried out as for other compensation events.

In April 2013, the first set of major amendments was published in order to bring the NEC suite up to date with relevant legal and industry developments. In particular:

- A new Professional Services Short Contract was introduced.
- Provision was made for the use of project bank accounts through secondary Option Y(UK)1, with a trust deed and joining deed.
- Seven 'how to' guides were published, including one entitled *How to use BIM with NEC3 Contracts*. As the title suggests, the guide includes guidance on using the Construction Industry Council BIM Protocol, issued in February 2013, which sets the standard for the future of Level 2 Building Information Modelling – compulsory for all government projects by 2016.
- The scope for compensation arising was broadened to include the issue of certificates and also correcting an assumption.
- Termination by the contractor for non-payment was changed to 11 weeks from the date payment should have been made, instead of 13 weeks from the date of the certificate.

Despite these amendments, the general approach remains the same, although there have been some notable changes to a number of the key clauses which will be discussed in this paper. The foundations of NEC3 and its predecessors are the nine sections containing the core clauses. Beyond these, a user selects the appropriate main option clauses (Options A-F, considered below) to produce the contract appropriate for the chosen procurement pathway. In respect of dispute resolution, there are two options⁶ and then 15 secondary option clauses (also further considered below). There are then two further

6 Options W1 and W2.

options, one relating to the Housing Grants, Construction and Regeneration Act 1996⁷ and one dealing with the Contracts (Rights of Third Parties) Act 1999.⁸

There is a series of additional conditions of contract known as Z clauses. These provide the parties, more usually the employer, with the opportunity to insert bespoke terms or amendments into the contract.

Two schedules of cost components are then set out. The second one is a shorter version of the first. The first is for use when Option C, D (target costs) or E (cost reimbursable) is used, while the shorter schedule is appropriate for any of Options A to E. The project specific information (start date etc) is contained in the contract data. Part 1 comprises data provided by the employer, such as the identity of the employer, the project manager, dates, payment intervals and insurance requirements. Part 2 contains data provided by the contractor, such as key contact details, information for the risk register and information in respect of the contractor design.

NEC in use

NEC2 was clearly well received by many sectors of the construction and engineering industry. There are, of course, critics; but NEC2 has been used by many of the utility bodies in the UK; in particular, the water industry, which has adopted the NEC for a large number of substantial projects.

The rail industry has also made use of the NEC, albeit with a considerable schedule of Z clauses. Other major projects have also used the NEC as the basis for their contracts; the contract for the Channel Tunnel Rail Link was based on NEC2, as was the national procurement project by the National Grid (Transco). NEC2 was adopted for use by the English National Health Service for its ProCure21 projects.⁹ British Airports Authority has used it for much of its work, most notably adapting it as the basis for the contract standard known as the 'Handbook' for the £5bn investment in Terminal 5 at Heathrow.

NEC3 has already been used in major UK projects, most notably for the decommissioning of nuclear power stations, again subject to a comprehensive schedule of Z clauses. It was also the contract of choice of the Olympic Delivery Authority, responsible for the planning, designing and building of the venues, facilities and accommodation (and developing the infrastructure to support these) for the 2012 Olympic Games. The Office of Government Commerce has also endorsed NEC3; the contract can therefore be selected if the procurement pathway is to meet the requirements of *Achieving Excellence in Construction*.¹⁰ NEC3 was used to construct the innovative Halley 6 Research Station, a project being constructed on a moving ice shelf in

7 Option Y(UK)2, dealing with payment, withholding and suspension.

8 Option Y(UK)3.

9 See <www.nhs-procure21.gov.uk>, also Simon Fullalove, 'ProCure 21 supply chain tightens', NEC Users' Group Newsletter 36 (July 2006): <www.neccontract.com>.

10 Chief Secretary to the Treasury, *Achieving Excellence in Construction* (1999): <www.constructingexcellence.org.uk/resources>.

Antarctica, said to be very technically challenging because of the extreme conditions.¹¹

Internationally, NEC has recently been widely used in Hong Kong: for instance, for a £53m underground storm water storage scheme, due for completion in 2018, the largest NEC3 Option C contract awarded by the Hong Kong Government to date.¹² NEC3 boasts success with the new Terminal 3 at Indira Gandhi International Airport, south west of New Delhi in India, the eighth largest in the world, which was completed on time in July 2010.¹³ It has apparently been widely used in South Africa,¹⁴ and in other countries in the transport, energy, process and mining sectors.

While NEC has been used on a number of major projects, it has yet to achieve as much penetration of the construction market as Sir Michael Latham would have liked. As is shown by the table presented in the National Construction Contracts and Law Survey 2013, JCT contracts remains the most popular by a significant margin.¹⁵ It is worth noting, however, that, broadly speaking, JCT contracts are selected for smaller projects, with NEC being selected for medium to large projects; only 12% of NEC contracts have a project value of less than £250,000, as opposed to 44% for JCT. This is consistent with suggestions that only the larger clients/projects have the management resources to operate NEC contracts, as it has been said that it is labour intensive to operate an NEC contract properly.

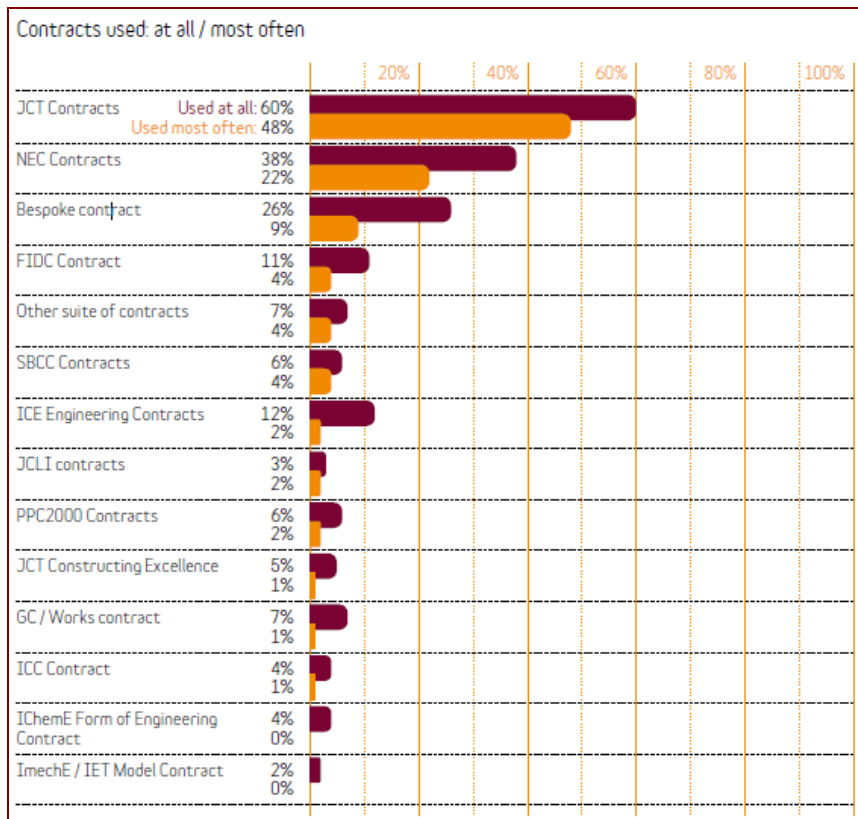
11 See <www.neccontract.com/about/halleyVI.asp> and also Simon Fullalove, 'NEC3 chosen for Halley 6 Ice Station', NEC Users' Group Newsletter 37 (December 2006): <www.neccontract.com>.

12 <www.neccontract.com/about/happy_valley_stormwater.asp>.

13 <www.neccontract.com/about/delhi_airport.asp>.

14 Simon Fullalove, 'South Africa sets stage for global NEC use', NEC Users' Group Newsletter 37 (December 2006): <www.neccontract.com>.

15 JCT contracts, published by the Joint Contracts Tribunal Ltd: see <www.thenbs.com/pdfs/NBS-NationalC&LReport2013-single.pdf>.



C Project management

Features of the contract

According to proponents of the NEC contract, its great strength is that it adopts a partnering approach whilst also placing great emphasis upon proactive project management. This is in line with Sir Michael Latham's recommendations that the role and duties of project managers be more clearly defined and his emphasis on collaborative working.

At the highest level, the emphasis on project management is demonstrated by the proactive forward-looking nature of the NEC3 contract drafting. A programme is required at the outset of the project, which is subject to the project manager's acceptance. An early warning system leads to the development of a risk register, which is once again ideally forward looking. As risk events are foreseen they are added to the risk register.

Change is also to be managed proactively. The project manager can instruct change; or the contractor can issue compensation event notices. The project manager may request quotations or alternative quotations in respect of compensation events, which then allows the management of time and cost in relation to those events. Time and money is dealt with in a composite manner in respect of each compensation event. This means that there is an obligation on the contractor to update the accepted programme regularly, as well as when a compensation event occurs. The programme is updated through to completion, thus providing a forward-looking useable project management tool, as well as an as-built record on conclusion of the project.

There are some particular aspects of the contract that encourage the parties to be forward looking and penalise parties failing to identify and manage risks proactively:

- *Early warning, risk identification and the updating of the risk register*: the early warning system is drafted to encourage the identification of problems and for the parties to work together in order to establish an early resolution. This provides that a contractor will only be compensated on the basis that an early warning had been given, based upon the date on which an experienced contractor would have, or ought to have, recognised the need to give a warning. Contractors are, therefore, encouraged to play their part in the early warning procedures, in order to avoid inadequate cost recovery for those problems which materialise later on.
- *Risk allocation*: those risks for which the employer is not expressly responsible under clause 80.1 are risks for which the contractor is liable. So there is an attempt to clearly allocate risks in one place in the contract.
- *Programme*: the production of an accepted programme, which is used to manage completion, sectional completion if appropriate, and key dates. The programme is updated regularly and used as an as-built record.
- *Time and money changes*: these are managed through the compensation events mechanism, which deals with any increase in the prices and changes to the completion date in a composite manner. The contractor is obliged to issue notices identifying compensation events within eight weeks of becoming aware of the event (or risk losing the right to bring a time and money claim) and the project manager may then obtain quotations, or alternative quotations, from the contractor in relation to the manner of dealing with those events. The project manager might decide not to instruct the change, instruct a change to the work, or might accept the quotation, amend them slightly or instruct the contractor to carry out the change, but then the project manager may assess the impact on time and cost later.
- *The target cost option*: this most clearly reflects the early warning proactive management approach by affecting the financial bottom line of the parties, in particular, the contractor.

The project manager's role: Costain v Bechtel¹⁶

In May 2005, in the Technology and Construction Court, Jackson J (as he then was) considered the project manager's role under an NEC-based contract to assess and certify sums due to the contractor. Costain were part of a consortium of contractors carrying out work in respect of the Channel Tunnel

¹⁶ *Costain Ltd v Bechtel Ltd* [2005] EWHC 1018 (TCC), [2005] TCLR 6.

Rail Link. The consortium entered into contract C105 to carry out the extension and refurbishment of St Pancras Station. This provided:

‘The Employer, the Contractor and the Project Manager act in the spirit of mutual trust and co-operation and so as not to prevent compliance by any of them with the obligations each is to perform under the Contract.’¹⁷

The contract, though amended, was based on the NEC form; it was a target cost contract with a ‘pay and gain mechanism’, providing for the Costain consortium to be paid actual cost less disallowed cost (as defined by the contract). The project manager (RLE) was a different consortium, whose largest shareholder was Bechtel Rail Link Engineering. Many of the RLE personnel who worked on the contract were also Bechtel employees.

In February 2005, RLE issued payment certificate no 47. This valued the work carried out as approximately £264m, but disallowed costs of some £1.4m. In April 2005, payment certificate no 48 was issued. This increased the total disallowed costs to £5.8m.

The Costain consortium alleged that, at a meeting in April 2005, Mr Bassily, the executive chairman of RLE (and a Bechtel manager), instructed all Bechtel staff to take a stricter approach to disallowing costs, and to disallow legitimate costs when assessing the payment certificates. The Costain consortium was concerned that Bechtel had deliberately adopted a policy of administering the contract unfairly and adversely to them. Accordingly, the consortium issued a claim against Bechtel and Mr Bassily, alleging that they had committed the tort of unlawfully procuring breaches of contract by the employer. The claim which came to court sought interim injunctions, restraining the RLE consortium from acting in this way in relation to the assessment of the contractor’s claims.

On the evidence before the court, the judge found that Mr Bassily had in fact been telling Bechtel staff to exercise their functions under the contract in the interests of the employer; that is, not impartially. Bechtel argued that they were obliged to look after the employer’s best interests and they therefore owed no duty to act impartially when considering payment applications. Jackson J disagreed, holding that it was properly arguable that, when assessing sums payable to the contractor, RLE as project manager did owe a duty to act impartially as between employer and contractor.

17 Compare this text with NEC3 clause 10.1: ‘The *Employer*, the *Contractor*, the *Project Manager* and the *Supervisor* shall act as stated in this contract and in a spirit of mutual trust and co-operation’. Judge Humphrey Lloyd QC in *Birse Construction Ltd v St David Ltd (No 1)* 78 Con LR 121, [1999] BLR 194, TCC, as well as the Court of Appeal in *Baird Textile Holdings Ltd v Marks & Spencer Plc* [2001] EWCA Civ 274, [2002] 1 All ER (Comm) 737, [2001] CLC 999, touch on the subject of partnering and on the terms ‘trust’ and ‘co-operation’.

The judge considered the authorities, starting with *Sutcliffe v Thackrah*, where the House of Lords discussed the role and duties of an architect in that situation.¹⁸ Here Lord Reid said:

‘It has often been said, I think rightly, that the architect has two different types of function to perform. In many matters he is bound to act on his client’s instructions, whether he agrees with them or not; but in many other matters requiring professional skill he must form and act on his own opinion.

Many matters may arise in the course of the execution of a building contract where a decision has to be made which will affect the amount of money which the contractor gets. Under the RIBA contract many such decisions have to be made by the architect and the parties agree to accept his decisions. For example, he decides whether the contractor should be reimbursed for loss under clause 11 (variation), clause 24 (disturbance) or clause 34 (antiquities), whether he should be allowed extra time (clause 23); or when work ought reasonably to have been completed (clause 22). And, perhaps most important, he has to decide whether work is defective. These decisions will be reflected in the amounts contained in certificates issued by the architect.

The building owner and the contractor make their contract on the understanding that in all such matters the architect will act in a fair and unbiased manner and it must therefore be implicit in the owner’s contract with the architect that he shall not only exercise due care and skill but also reach such decisions fairly, holding the balance between his client and the contractor.¹⁹

Jackson J noted that these comments had generally been accepted by the construction industry and the legal profession as correctly stating the duties of architects, engineers and other certifiers under the conventional forms of construction contract. The issue here concerned the duty of certifiers in general, but also the specific duties of the project manager under the present contract. Four reasons were put forward as to why the contract here was different:

‘(i) The terms of the present contract which regulate the contractor’s entitlement are very detailed and very specific. They do not confer upon the project manager a broad discretion, similar to that given to certifiers by conventional construction contracts. Therefore there is no need, and indeed no room, for an implied term of impartiality in the present contract.

(ii) The decisions made by the project manager are not determinative. If the contractor is dissatisfied with those decisions, he has recourse to the dispute resolution procedures set out in section 9 of the contract. The existence of these procedures has the effect of excluding any implied term that the project manager would act impartially.

18 *Sutcliffe v Thackrah* [1974] AC 727, HL; also [1974] 2 WLR 295, [1974] 1 All ER 859, [1974] 1 Lloyd’s Rep 318.

19 *Sutcliffe v Thackrah* [1974] AC 727, page 737.

(iii) The project manager under contract C105 is not analogous to an architect or other certifier under conventional contracts. The project manager is specifically employed to act in the interests of the employer. In *Royal Brompton Hospital NHS Trust v Hammond* Judge Humphrey Lloyd QC ... described the project manager as ‘co-ordinator and guardian of the client’s interest’.²⁰

(iv) The provisions of clauses Z.10 and Z.11 prevent any implied term arising that the project manager will act impartially.²¹

Jackson J view in relation to point (i) was that:

‘When the project manager comes to exercise his discretion in those residual areas, I do not understand how it can be said that the principles stated in *Sutcliffe* do not apply. It would be a most unusual basis for any building contract to postulate that every doubt shall be resolved in favour of the employer and every discretion shall be exercised against the contractor.’²²

In respect of point (ii) he stated:

‘Mr Boswood [*counsel for the defendants*] points out that under clause 92.1 the adjudicator is obliged to act impartially. Therefore, he submits, there does not need to be any similar duty upon the project manager. This submission has surprising consequences. If (a) the project manager assesses sums due partially and in a manner which favours the employer, but (b) the adjudicator assesses those sums impartially and without favouring either party, then this is likely to lead to successive, expensive and time-consuming adjudications. I do not see how that arrangement could make commercial sense.’²³

On point (iii) he concluded:

‘... I do not see how this circumstance detracts from the normal duty which any certifier has on those occasions when the project manager is holding a balance between employer and contractor. In *Royal Brompton*²⁴ (upon which defence counsel rely in paragraph 33 of their skeleton argument) the contractual arrangement was very different from that set up in the present case. There were architects and others who would carry out the functions of certification and assessing what was due to the contractor. The role of Project Management International in the *Royal Brompton* case was far removed from that of RLE in the present case.’²⁵

In respect of point (iv), he decided that clause Z.10 was not relevant. He then quoted clause Z.11:

20 *Royal Brompton Hospital NHS Trust v Hammond (No 9)* [2002] EWHC 2037 (TCC), 88 Con LR 1, para [23] (note: the judgment incorrectly describes the case as ‘No 8’).

21 *Costain v Bechtel*, note 16, para [40].

22 *Costain v Bechtel*, note 16, para [44].

23 *Costain v Bechtel*, note 16, para [47].

24 *Royal Brompton Hospital v Hammond*: note 20.

25 *Costain v Bechtel*, note 16, para [48].

‘This contract supersedes any previous (negotiations, statements, whether written or oral), representations, agreements, arrangements or understandings (whether written or oral) between the employer and the contractor in relation to the matters dealt within this Contract and constitutes the entire understanding and agreement between the employer and the contractor in relation to such matters and (without prejudice to the generality of the foregoing) excludes any warranty, undertaking, condition or term implied by custom.’

And the judge then stated:

‘At the moment I do not see how clause Z.11 impacts upon the present issue. The implied obligation of a certifier to act fairly, if it exists, arises by operation of law not as a consequence of custom.’²⁶

Nonetheless, the judge decided against an interim injunction:

‘[The claimants] have satisfied the threshold test in *American Cyanamid*.²⁷ They have shown that there are serious issues to be tried in their claims against both defendants. Nevertheless, when it comes to the question of balance of convenience, [they] have failed to show that this is a proper case for the grant of an interim injunction. On the contrary, I am quite satisfied that this is not a proper case for the grant of such an injunction.’²⁸

A definitive answer on the issue raised in *Costain v Bechtel* would, therefore, be extremely welcome. If the project manager does not owe a duty of impartiality, it is difficult to see how this can sit comfortably with the supposedly overriding objective of NEC contracts to attempt to foster collaborative working and avoid confrontation. The role of the project manager is still, today, an area of uncertainty.

The most likely position is that the project manager, when acting for the employer, need not be impartial; however, when those actions involve making a valuation or payment decision, the project manager has a duty to act impartially and balance the interests of the employer and contractor.

D Programming

The NEC contract provides a clear and objective requirement for a detailed programme, together with method statements and continuous updates. This is an important aspect of the core clauses dealing with time under the NEC. This is also key in terms of managing the project well, as the impact of any changes or delays should be identified easily and quickly.

The main programme tool is known as the ‘Accepted Programme’ and is defined at clause 11.2(1) as:

26 *Costain v Bechtel*, note 16, para [51].

27 *American Cyanamid Co v Ethicon Ltd (No 1)* [1975] AC 396, [1975] 2 WLR 316, [1975] 1 All ER 504, HL.

28 *Costain v Bechtel*, note 16, para [66].

‘... the programme identified in the Contract Data or is the latest programme accepted by the *Project Manager*. The latest programme accepted by the *Project Manager* supersedes previous Accepted Programmes.’

The programme might be identified in the contract data and so attached to the contract, or, alternatively, the contractor may submit a programme to the project manager for acceptance. The contractor’s programme must show not only the start date, access dates, key dates and completion dates, but also planned completion, the order and timing of operations (both the contractor’s and the work of others), together with provisions for float, time risk allowances, health and safety requirements and other procedures set out in the contract. Clause 31.2 sets out the requirements for a programme that may then be accepted:

‘The *Contractor* shows on each programme which he submits for acceptance

- the *starting date*, *access dates*, Key Dates and Completion Date,
- planned Completion,
- the order and timing of the operations which the *Contractor* plans to do in order to Provide the Works,
- the order and timing of the work of the *Employer* and Others as last agreed with them by the *Contractor* or, if not so agreed, as stated in the Works Information,
- the dates when the *Contractor* plans to meet each Condition stated for the Key Dates and to complete other work needed to allow the *Employer* and Others to do their work,
- provisions for
 - float,
 - time risk allowances,
 - health and safety requirements and
 - the procedures set out in this contract,
- the dates when, in order to Provide the Works in accordance with his programme, the *Contractor* will need
 - access to a part of the Site if later than its *access date*,
 - acceptances,
 - Plant and Materials and other things to be provided by the *Employer* and
 - information from Others,
- for each operation, a statement of how the *Contractor* plans to do the work identifying the principal Equipment and other resources which he plans to use and

- other information which the Works Information requires the *Contractor* to show on a programme submitted for acceptance.’

If the contractor needs access at a particular time, and in respect of a particular part of the site, then that must also be indicated in the programme, together with dates by which acceptances are needed and information from others as well as plant and materials and other ‘things’ that are to be provided by the employer. A statement of how the contractor is to plan and carry out the work must also be included, together with any other specific information required in the works information for that particular project. However, the NEC3 does not expressly request a programme that has been prepared using the critical path method nor does it expressly require the accepted programme to show the critical path.

The project manager has two weeks to either accept the programme or set out reasons for rejecting it. There are four default reasons set out in clause 31.3:

- if the contractor’s plans are not practicable;
- if the programme does not show the information required by the contract;
- if it is not realistic; or
- if it does not comply with the works information.

These are the listed reasons; however, the project manager could set out further reasons for not accepting the programme. He is obliged to set out some reasons, rather than simply rejecting the programme.

The regime for revising the accepted programme is set out in clauses 32.1 and 32.2:

‘The *Contractor* shows on each revised programme

- the actual progress achieved on each operation and its effect upon the timing of the remaining work,
- the effects of implemented compensation events and of notified early warning matters,
- how the *Contractor* plans to deal with any delays and to correct notified Defects and
- any other changes which the *Contractor* proposes to make to the the Accepted Programme.

The *Contractor* submits a revised programme to the *Project Manager* for acceptance

- within the *period for reply* after the *Project Manager* has instructed him to,
- when the *Contractor* chooses to and, in any case
- at no longer interval than the interval stated in the Contract Data from the *starting date* until Completion of the whole of the *works*.’

When the contractor submits a revised programme, that programme must record the actual progress made in respect of each operation and the effect upon the remaining works. The use of programmes, therefore, is an active and on-going management tool. Further, a programme is to be submitted at the completion of the whole works, thus finally updating the programme to the point where it becomes almost a record of the as-built works.

The project manager may request the contractor to provide a quotation for accelerating the works in order to achieve completion before the completion date.²⁹ NEC is, therefore, one of the few contracts that provides express power for the employer (or rather, in this instance, the project manager on behalf of the employer) to request the contractor for a price for accelerating the works. Nonetheless, any acceleration is, of course, subject to the contractor submitting a quotation that is acceptable, and, indeed, being in a position to accelerate the works.

The idea of a detailed and considered programme promotes efficiency of time and resource. As Sir Michael Latham stated, ‘It is best practice if all projects are fully planned ... That remains the ideal ... This assumes perfection and no changes of circumstance in time, demand or finance.’³⁰ This is the ultimate goal; but while changes are practically unavoidable, the next best thing is a detailed programme which is updated and agreed regularly. This is something the NEC3 focuses on with the aim of getting closer to that ideal; it is a step in the right direction.

In line with NEC3 philosophy, there is an express right to encourage submission of a programme if one has not been included in the contract data.³¹ One quarter of the price for the work done at a valuation assessment date is withheld until the programme is submitted.

Sectional completion and key dates

The contractor is to start on site on the first access date and is to complete the work on or before the completion date. The project manager is to certify the date of completion within one week of completion. The contractor must also carry out the work such that any condition stated for a key date is met by that key date.

Key dates are distinct from sectional completion dates. If sectional completion is required, then secondary Option X5 must be included within the contract. Sectional completion provisions are short, and so the detail of the work to be carried out and completed in any particular section must be carefully identified in the contract data. By comparison a ‘Key Date’ is:

‘... the date by which work is to meet the Conditions stated. The Key Date is the *key date* stated in the Contract Data and the Condition is the

29 NEC3, clause 36.1.

30 Sir Michael Latham, note 1, para 4.11.

31 NEC3, clause 50.3.

condition stated in the Contract Data unless later changed in accordance with this contract.’³²

The distinction between a sectional completion date and a key date, therefore, is that the contractor must simply meet the condition stated in the contract on or before the key date; while a certified (sectional) completion date means that the employer must take over those works not later than two weeks after completion.³³

The Guidance Notes to NEC3³⁴ state that key dates are applicable for projects when two or more contractors are working on the same project, albeit under separate contracts, but with a common employer and most usually the same project manager. If one contractor’s work is dependent upon the actions of the other, then the use of key dates within a project programme allows the project manager to monitor the completion of a particular activity by a contractor for part of the works. It is said that key dates can be used to precisely programme timescales in order to achieve a particular condition, thus allowing other contractors, or indeed the employer, to proceed to an overall project programme.

In practice, there may be some difficulty in defining precisely what it is that must be done in order for a contractor to achieve a key date, just as there is with adequately and properly defining each section, where a particular project is subject to sectional completion. The difficulty can only be greater in attempting to define conditions which are something less than the completion of a section, but which are readily identifiable.

An example of a key date may be the completion of the contractor’s design in respect of a particular section of the works or a design reaching a defined stage. The purpose would be to allow others to then carry on with their design or to commence construction. No doubt, with a true commitment to a proactive, project management based approach, the use of key dates could be invaluable.

Completion and taking over the works

Clause 35.1 provides that the employer will take over the works not later than two weeks after completion. If the contractor completes the work early, then the employer might not be obliged to take over the works before the completion date, but only if he has set out in the contract data that he is not willing to do so.

Partial possession is possible if the employer begins to use a part of the works, unless it is simply to suit the contractor’s method of working or for a reason stated in the works information. If the employer does take over part of the works then the project manager is to certify the partial taking over within one week.

32 NEC3, clause 11.2(9).

33 NEC3, clause 35.1.

34 Summary of *NEC3 Engineering and Construction Contract Guidance Notes* (NEC Users’ Group): <www.neccontract.com>.

Early warning

The early warning mechanism is contained in clause 16.1:

‘The *Contractor* and the *Project Manager* give an early warning by notifying the other as soon as either becomes aware of any matter which could

- increase the total of the Prices,
- delay Completion,
- delay meeting a Key Date or
- impair the performance of the works in use.

The *Contractor* may give an early warning by notifying the *Project Manager* of any other matter which could increase his total cost. The *Project Manager* enters early warning matters in the Risk Register. Early warning of a matter for which a compensation event has previously been notified is not required.’

Under this procedure:

- The contractor is to give the project manager a warning of relevant matters;
- A relevant matter is anything which could increase the total cost or delay the completion date or a key date or impair the performance of the finished (in use) work;
- The contractor and project manager are then required to attend an early warning meeting if one or the other party request it. Others might be invited to that meeting; and
- The purpose of the early warning meeting is for those in attendance to co-operate and discuss how the problem can be avoided or reduced. Decisions focus on what action is to be taken next, and identify who is to take that action.

It could be said that this is a partnering based approach to the resolution of issues before they form entrenched disputes. Co-operation between the parties at an early stage of any issue identified by the contractor or project manager provides an opportunity for the parties to discuss and resolve the matter in the most efficient manner.

This is a departure from the usual approach, under which the contractor serves notices of events that have taken place. A contractor may receive compensation for addressing issues raised by way of the early warning system. On the other hand, if a contractor fails to give an early warning of an event which subsequently arises, and that he was aware of, then any financial compensation awarded to the contractor is assessed as if he had given an early warning at the right moment.³⁵ If, therefore, a timely early warning would have provided an opportunity for the employer to identify a more efficient way

³⁵ See clause 63.5.

of resolving the issue, then the contractor will only be paid for that method of dealing with the event.

Risk register

The requirement to maintain a risk register appeared for the first time in the third edition of the NEC.³⁶ As defined by Clause 11.2(14):

‘The Risk Register is a register of the risks which are listed in the Contract Data and the risks which the Project Manager or Contractor has notified as an early warning matter. It includes a description of the risk and a description of the actions which are to be taken to avoid or reduce the risk.’

The risk register will initially contain risks identified by the employer and contractor, but the risk register will develop as the project proceeds. It works hand in hand with the early warning process and in conjunction with the proactive project management approach of the contract.

There are three main objectives of the risk register:

1. To identify the risks associated with the project;
2. To set out how those risks might be managed; and
3. To identify the time and cost associated with managing those risks.

It may be possible to precisely and specifically identify risks that can be added to the register; in other instances, the risk register may simply contain some generic risks. The process of identification allows the parties to consider how those risks might be managed before turning their attention to the time and cost implications. If Option A or B applies, then the employer will only bear the costs in terms of time and money if a risk is covered by a compensation event. Otherwise, the contractor bears all other risks. The approach is similar for Options C and D (target cost contracts), in that the employer will bear the risk if the event is one listed in clause 80.1. If not, the employer will in any event initially bear the risk, but the risk will then be shared through the risk share mechanism set out in clause 53.

There is, however, also the impact of the concept of Disallowed Cost, discussed below. If an element of cost is disallowed, then the risk will be the contractor’s in any event. Finally, the employer bears almost all the risk under Options E and F (cost reimbursable contracts). This is unless the risk is covered by the definition in clause 11.2(25) or 11.2(26), again relating to disallowed costs.

The important aspect of the risk register is not just the early identification, but also the ability to then appraise and re-appraise, as well as proactively manage risks *before they occur*. The overall effect of a well run risk register is a greater assessment of the overall financial outcome of the project and a greater ability to manage time for completion of the project.

³⁶ NEC3, clauses 16.1-16.4.

The early warning procedure and the risk registers emphasise the strong focus on risk management that the NEC places. This leads to a proactive role in project management and helps to tackle issues with a hands-on approach. This risk sharing philosophy and management approach, which the NEC boasts, requires that the client is aware of situations, is a part of the decision making and ultimately is an active participant in the risk reduction process of the project. This involvement and collaboration is on track with Sir Michael Latham's recommendations and is an improvement over the procedures in the past.

E Pricing

The options

The foundations of NEC3 and its predecessors are the nine sections containing the core clauses. Beyond these, a user selects the appropriate main option clauses (Options A-F below) to produce the contract appropriate for the chosen procurement pathway:

- A Priced contract with activity schedule;
- B Priced contract with bill of quantities, providing that the contractor will be paid at tender prices;
- C Target contract with activity schedule;
- D Target contract with bill of quantities – this provides that the financial risks are shared between the contractor and the employer in agreed proportions;
- E Cost reimbursable contract; and
- F Management contract – a cost reimbursable contract where the risk is therefore largely taken by the employer, under which the contractor is paid for his properly incurred costs, together with a margin.

Options A and B are lump sum fixed price contracts. An activity schedule (breaking down the price into elements or activities comprising the works) is to be prepared by the contractor, although in practice it will be directed to follow a particular format. Options C and D operate a pain/gain share mechanism.

Defining price

Price is defined by reference to each option. So for Option A, clause 11.2(27) defines the 'Price for Work Done to Date' as:

- '... the total of the Prices for
 - each group of completed activities and
 - each completed activity which is not in a group.

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.'

Two schedules of cost components are then set out. The second one is a shorter version of the first. The first is for use when Option C, D (target costs) or E (cost reimbursable) is used, while the shorter schedule is appropriate for any of Options A to E.

As with the philosophy described above regarding programming, this is meant to encourage partnering and provide incentives to work together to complete on budget. However, one of Sir Michael Latham's major themes was the fact that value was not necessarily found in the lowest price. He recommended that a small task force be set up to identify and endorse a specific quality and price assessment mechanism.

Quality and price assessment

A working group comprised of representatives from across the construction industry was subsequently formed to pick up on this recommendation. Under the auspices of the now defunct Construction Industry Board (CIB), the group prepared *Selecting Consultants for the Team: Balancing Quality and Price*.³⁷ The report made a number of recommendations regarding selection and assessment processes, including identifying a number of key steps which an employer should take during the tender process in order to establish a quality/price mechanism:

- Appoint a *tender board* to set and apply the mechanism
- The tender board should then establish the *quality/price ratio* appropriate to the project; complexity, the degree of innovation and flexibility required in its execution are influencing factors
- *Weighting of quality criteria*: once the quality/price ratios are established, the board must establish project-specific quality requirements to assess tenderers
- *Marking and scoring*: an objective rating system for assessment must be established, using an absolute scoring system. The weighted mark is then calculated by multiplying the awarded mark by the project weighting for that criterion
- *Quality threshold*: this is the absolute minimum quality score acceptable, determined by the employer and established prior to the issue of tenders
- *Price scoring*: the lowest price is given 100 points, one point being deducted from the other tenders for each percentage point above the lowest.

These quality/price mechanism recommendations were later included within the CIB *Code of Practice for the Selection of Subcontractors*,³⁸ these mechanisms now being widely used in tendering processes across the industry.

37 Construction Industry Board, *Selecting Consultants for the Team: Balancing Quality and Price* (1996).

38 Construction Industry Board, *Code of Practice for the Selection of Subcontractors* (1997).

‘Defined Cost’ and ‘Disallowed Cost’

The phrase ‘Actual Cost’ has been changed in NEC3 to ‘Defined Cost’. The impact of ‘Defined Cost’ also differs between the main Options. Under all the main Options it is the basis for assessing the financial impact of compensation events, while under Options C, D and E it is also the basis for reimbursing the contractor for the price for work done to date, as discussed below.

The definition of ‘Defined Cost’ under Options A and B is found in clause 11.2(22):

‘... the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events.’

Under Options C, D and E it is found in clause 11.2(23):

‘... the amount of payments due to Subcontractors for work which is subcontracted without taking account of amounts deducted for

- retention,
 - payment to the *Employer* as a result of Subcontractor failing to meet a Key Date,
 - the correction of Defects after Completion,
 - payments to Others and
 - the supply of equipment, supplies and services included in the charge for overhead cost within the Working Areas in this contract
- and
- the cost of components in the Schedule of Cost Components for other work

less Disallowed Cost.’

There are two schedules of cost components. The shorter is used with Options A and B, and, if agreed, with options C-E. The schedules are a set of rules to define those components of the contractor’s cost which are included in Defined Costs. Each schedule is split into the following sections:

- People
- Equipment
- Plant and Materials
- Charges
- Manufacture and fabrication
- Design
- Insurance.

There is also a concept of Disallowed Cost: a cost that the contractor may have incurred that falls within the definition of Defined Costs, but is disallowed for any of the reasons listed in clause 11.2(25):

‘Disallowed Cost is cost which the *Project Manager* decides:

- is not justified by the *Contractor’s* accounts and records,
 - should not have been paid to a Subcontractor or supplier in accordance with his contract,
 - was incurred only because the *Contractor* did not
 - follow an acceptance or procurement procedure stated in the Works Information or
 - give an early warning which this Contract required him to give
- and the cost of
- correcting Defects after Completion,
 - correcting Defects caused by the Contractor not complying with a constraint on how he is to Provide the Works stated in the Works Information,
 - Plant and Materials not used to Provide the Works (after allowing for reasonable wastage) unless resulting from a change to the Works Information,
 - resources not used to Provide the Works (after allowing for reasonable availability and utilisation) or not taken away from the Working Areas when the *Project Manager* requested and
 - preparation for and conduct of an adjudication or proceedings of the *tribunal*.’

Under the target cost options, an issue which can cause confusion is the cost of correcting defects. After completion, this is treated as a Disallowed Cost; however, the cost of correcting defects *before* completion is generally allowed. Why should an employer be expected to pay for the contractor to rectify defects, simply because the defect has arisen prior to completion? However, employers do receive an indirect benefit from this provision. When the contractor is paid for rectifying a defect, his Defined Cost increases, meaning the contractor’s gain share may be reduced. The contractor may have to pay money back to the employer if the target cost is exceeded. There is, therefore, an incentive for the contractor to not only minimise defects (thereby keeping defined cost down and hopefully ensuring a bigger gain share) but also to ensure there is a snag-free handover so he does not have to meet the cost of rectifying any defects post-completion.

F Compensation events and the time bar

Core clause 60 deals with compensation events. If a compensation event occurs, which is one entitling the contractor to more time and/or money, then these will be dealt with on an individual basis. If the compensation event arises from a request of the project manager, then the contractor is asked to

provide a quotation, which should also include any revisions to the programme. The project manager can request the contractor to revise the price or programme, but only after he has explained his reasons for the request.

The general scheme of clause 60 is to define those events which are compensation events. In the April 2013 amendments to NEC3, the categories of these were reduced from twelve to four. Notice provisions are contained in clauses 61 and 16.1. The early warning notice requirements in clause 16.1 should not be ignored, because a failure to issue an appropriate early warning notice may affect the assessment of the compensation event.

The April 2013 amendments to clause 61.4 re-emphasise the requirement for the project manager to notify the contractor whether an event is a compensation event. There is also greater emphasis on the failure of the project manager to reply to a quotation or assess a compensation event, where the contractor is able to point to the project manager's failure to do so. Clauses 61.5 and 63.5 deal with the assessment of compensation events in situations where the contractor did not give an early warning of a compensation event which an 'experienced contractor' could have given. In this situation the event is assessed as if the contractor had given early warning.

Following the early warning notice, a quotation in respect of a compensation event may then be requested by the project manager. The contractor can be asked to submit alternative quotations.³⁹ The contractor should submit its quotation within three weeks of a request by the project manager. The project manager then replies within two weeks, accepting the quote, instructing a further revised quote, notifying the contractor that the proposed instruction will not be given or notifying the contractor that the project manager will make his own assessment.⁴⁰

Compensation events are assessed under clause 63. A compensation event is assessed by reference to the 'actual Defined Cost of the work already done, the forecast Defined Cost of the work not yet done and the resulting Fee'.⁴¹ Clause 52 deals with defined cost, which provides that the 'All the Contractor's costs, which are not included in the Defined Cost, are treated as included in the Fee.' The defined cost comprises the rate and percentages that are set out in the contract data less any discounts, but subject to an additional fee.

A delay to the completion date is assessed by reference to the planned completion shown on the accepted programme. The adjustment to the time for completion is, therefore, based upon assumptions which may take account of risks associated with the forecasting of any particular event. There is, however, no change to any adjustment to the time for completion if the assessment turns out to be wrong.⁴²

39 NEC3, clause 62.1.

40 NEC3, clause 62.3.

41 NEC3, clause 63.1.

42 NEC3, clause 65.2: 'The assessment of a compensation event is not revised if a forecast upon which it is based is shown by later recorded information to have been wrong.'

Notifying change

The NEC terminology does not refer specifically to claims, but instead requires notification of any matter which could increase the total of the prices, delay completion, delay the meeting of a key date or impair the performance of the works in use (as in clause 16.1 above). This is extremely wide language. It is therefore important to consider the early warning mechanism, the notification requirements and then how the assessment of compensation differs, depending on whether an early warning was given. The old NEC2 two-week period for notification has been replaced with an eight-week period in NEC3, but the consequences for a contractor are potentially more serious in the current clause 61.3:

‘The *Contractor* notifies the *Project Manager* of an event which has happened or which he expects to happen as a compensation event if

- the *Contractor* believes that the event is a compensation event and
- the *Project Manager* has not notified the event to the *Contractor*.

If the *Contractor* does not notify a compensation event within eight weeks of becoming aware of the event, he is not entitled to a change in the Prices, the Completion Date or a Key Date unless the event arises from the *Project Manager* or the *Supervisor* giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption.’

Clause 61.3 appears to operate as a bar to the contractor in respect of the time and financial consequences of any breach of contract by the employer, if the contractor fails to notify in time; clause 60.1(18) states that a compensation event includes:

‘A breach of contract by the *Employer* which is not one of the other compensation events in this contract.’

Impact of the time bar⁴³

The courts have for many years been hostile to such clauses.⁴⁴ In more modern times, there has been an acceptance by the courts that such provisions might well be negotiated in commercial contracts between businessmen.⁴⁵ The House of Lords’ case of *Bremer v Vanden-Avenne* provides authority for the proposition that for a notice to amount to a condition precedent it must set out the time for service and make it clear that failure to serve will result in a loss of rights under the contract.⁴⁶ This seems relatively straightforward.

43 See also Hamish Lal, ‘The Rise and Rise of Time-Bar Clauses for Contractors’ Claims: Issues for Construction Arbitrators’, SCL (UK) Paper 142 (September 2007): <www.scl.org.uk>.

44 Time bar clauses are treated by the courts as limitation clauses and are therefore construed strictly and *contra proferentem*: see the Privy Council in *Dairy Containers Ltd v Tasman Orient Line CV (New Zealand)* [2004] UKPC 22, [2005] 1 WLR 215, [2004] 2 All ER (Comm) 667, [2004] 2 Lloyd’s Rep 647, [2004] 2 CLC 794.

45 See for example *Photo Production Ltd v Securicor Transport Ltd* [1980] AC 827, [1980] 2 WLR 283, [1980] 1 All ER 556, [1980] 1 Lloyd’s Rep 545, HL.

46 *Bremer Handels GmbH v Vanden-Avenne Izegem PVBA* [1978] 2 Lloyd’s Rep 109, HL.

However, it may not be possible for an employer to rely upon *Bremer* in circumstances where the employer has itself caused some delay. So *Bremer* is a case where a party seeking to rely upon the condition precedent was not itself in breach in any respect. An employer may, therefore, be in some difficulty when attempting to rely upon *Bremer* in circumstances where the employer has caused the loss, or a proportion of the loss.

The courts also interpret strictly any clause that appears to be a condition precedent. Not only will the court construe the term against the person seeking to rely upon it, but will require extremely clear words in order for the court to find that any right or remedy has been excluded. However, an alternative way of approaching such provisions was highlighted in the Scottish case of *City Inn v Shepherd Construction*.⁴⁷

Here, the Court of Session considered the requirement on the contractor to comply with a time bar clause (in this case in a heavily amended JCT 1980 Standard Form of Contract, Private with Quantities). The contractor had been awarded (by the architect and an adjudicator) a total nine week extension of time. The employer argued that no extension should have been granted and that liquidated damages should be payable, since the contractor had failed to comply with the time-bar provisions. Clause 13.8.1 provided:

‘Where, in the opinion of the Contractor, any instruction, or other item, which, in the opinion of the Contractor, constitutes an instruction issued by the Architect will require an adjustment to the Contract Sum and/or delay the Completion Date the Contractor shall not execute such instruction (subject to clause 13.8.4) unless he shall have first submitted to the Architect, in writing, within 10 working days (or within such other period as may be agreed between the Contractor and the Architect) of receipt of the instruction details of [its initial estimate, requirements in respect of additional resources and the length of any extension of time].’

Clause 13.8.5 further provided:

‘If the Contractor fails to comply with any one or more of the provisions of clause 13.8.1, where the Architect has not dispensed with such compliance under clause 13.8.4, the Contractor shall not be entitled to any extension of time under clause 25.3.’

In the Inner House, the Lord Justice Clerk (Lord Gill) applied the time bar as it stood:

‘... if he [*the Contractor*] wishes an extension of time, he must comply with the conditions precedent that clause 13.8 provides for these specific circumstances ... But if the Contractor fails to take the specified steps in clause 13.8.1, then, unless the architect waives the requirements of the

47 *City Inn Ltd v Shepherd Construction Ltd* [2001] ScotCS 187, 2002 SLT 781 (Court of Session, Outer House); then appealed to the Inner House (successful on the point that failure to use the procedures of clause 13.8 was not itself a breach of contract, so the clause could not be treated as imposing a penalty) [2003] ScotCS 146, 2003 SLT 885, [2003] BLR 468.

clause under 13.8.4, the Contractor will not be entitled to an extension of time on account of that particular instruction.’⁴⁸

The Inner House interpreted the time bar clause as giving an option, so not imposing any obligation on the contractor; which also disposed of the contractor’s argument (successful in the Outer House) that the time bar was a penalty, thus unenforceable.

One important distinction between the drafting of the provision in *City Inn* and NEC3 is that the contractor in *City Inn* did not have to carry out an instruction unless he had submitted certain details to the architect. NEC3 by contrast provides a bar to the bringing of a claim simply for failing to notify the project manager in time about a compensation event. A specific instruction might not have been given, and the contractor might not be prompted to respond in the absence of this.

Operation of the time bar

Under NEC3, the contractor must of course be ‘aware of the event’ in order to notify the project manager under clause 61.3. There will no doubt be arguments about when a contractor became aware – or should have become aware – of a particular event, and also the extent of the knowledge in respect of any particular event.

Ground conditions offer a good example. Initially, when a contractor encounters ground conditions that are problematic, he may continue to work in the hope that he will overcome the difficulties without any delay or additional costs. As the work progresses, the contractor’s experience of dealing with the actual ground conditions may change, such that the contractor reaches a point where he should notify the project manager. The question arises: should the contractor have notified the project manager at the date of the initial discovery, rather than at the date when the contractor believed that the ground conditions were unsuitable?

The answer must be, in line with the words of NEC3, that the contractor should give notice when he encounters ground conditions which an experienced contractor would have considered at the contract date to have had only a minimal chance of occurring, and so it would have been unreasonable to have allowed for them in the contract price, having regard to all of the information that the contractor is to have taken into account under clause 60.2.⁴⁹

Subjective or objective awareness?

It is interesting to compare the text in clause 61.3 – ‘becoming aware of the event’ – with Sub-Clause 20.1 of the FIDIC suite of contracts, of which the

48 *City Inn v Shepherd Construction* (Inner House), note 47, para [23].

49 NEC3, clause 60.2 deals with physical conditions.

best known are the current versions of the Red Book,⁵⁰ the Yellow Book⁵¹ and the Silver Book.⁵²

‘If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor *became aware, or should have become aware*, of the event or circumstance. [emphasis added]

If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim.’

This uses a trigger that the contractor ‘became aware, or should have become aware’ of the event or circumstance. The NEC3 terminology mentions only the contractor’s awareness: arguably, therefore, its test is a subjective one. Was the actual contractor in those circumstances under the contract at the time actually aware of the compensation event? By comparison, the second limb of the FIDIC terminology must be an objective test. In other words, if the contractor should have become aware, then the test is most likely that of a reasonably competent contractor in similar circumstances. This allows a third party decision maker to introduce their own view about whether a competent contractor would have become aware, rather than embarking on an exercise to see whether the actual contractor had subjective knowledge of the compensation event.

In *Obrascon Huarte Lain v Her Majesty’s Attorney General for Gibraltar*, Akenhead J, considering whether the condition precedent under FIDIC Sub-Clause 20.1 had been met, stated:

‘... the ‘event or circumstance giving rise to the claim’ for extension must first occur and there must have been either awareness by the Contractor or the means of knowledge or awareness of that event or circumstance before the condition precedent bites.’⁵³

This is an interesting and useful comment, as it is based on the premise that the words ‘if the Contractor considers’ contain an element of subjectivity.⁵⁴ A contractor cannot of course consider itself to be entitled to an extension unless it knows of the triggering event.

50 FIDIC Conditions of Contract for Construction (1st edition, 1999): <www.fidic.org>.

51 FIDIC Plant and Design-Build Contract (1st edition, 1999): <www.fidic.org>.

52 FIDIC EPC/Turnkey Contract (1st edition, 1999): <www.fidic.org>.

53 *Obrascon Huarte Lain SA v Her Majesty’s Attorney General for Gibraltar* [2014] EWHC 1028 (TCC), para [312].

54 On *Obrascon v A-G*, see also Exarchou & Rosenberg International LLP, ‘Interpretation of Time Limits under FIDIC Rainbow’ (24 April 2014): <www.erilaw.co.uk/#!articles/cl9i>.

Who needs to be 'aware'?

A further question arises in respect of clause 61.3: who precisely needs to be 'aware'? Is it the person on site working for the contractor, the contractor's agents or employees, or is it the senior management within the limited company organisation of the contractor? Case law suggests that it is the senior management of the company, not merely servants and agents.⁵⁵

The starting point is the general argument that all corporations and authorities have a legal identity and act through the individuals that run, are employed by or are agents of that organisation. A corporation or authority is a legal person, and is therefore regarded by law as a legal entity quite distinct from the person or persons who may, from time to time, be the members of that corporation.

The position is simplified for a person dealing with a company registered under the Companies Act 2006. A party to a transaction with a company is not generally bound to enquire as to whether the act is permitted by the company's memorandum or as to a limitation on the powers of the board of directors to bind the company. However, if the contract is to be completed as a deed, then the contract must be signed by either two directors or a director and the company secretary.

Generally, directors and the company secretary, therefore, have authority to bind the company. If a person represents that he has authority, which he does not possess, but in any event induces another to enter into a contract that is void for want of authority, then that person will be able to sue for breach of want of authority. However, these propositions relate to the formation of contracts, rather than the conduct of the contract and, in particular, the identification of who within the company needs to have the knowledge required in order to make a decision whether a notice should be served. While then an agent of a company can bind a company, that agent must still act within the scope of their authority when taking actions under a contract.

So who then within the company must be 'aware' for the purposes of clause 61.3? Identifying the 'directing mind' within a company is the key to ascertaining who within a company has the necessary quality to be 'aware', as explained by Denning LJ (as he then was) in *Bolton v Graham*:

'Some of the people in the company are mere servants and agents who are nothing more than hands to do the work and cannot be said to represent the mind or will. Other are directors and managers who represent the directing mind and will of the company, and control what it does. The state of mind of these managers is the state of mind of the company and is treated by the law as such. So you will find that in cases where the law requires personal fault as a condition of liability in tort, the fault of the manager will be the personal fault of the company.'⁵⁶

55 *HL Bolton (Engineering) Co Ltd v TJ Graham & Sons Ltd* [1957] 1 QB 159, CA; also [1956] 3 WLR 804, [1956] 3 All ER 624.

56 *Bolton v Graham*, note 55, page 172.

The intention of the company is, therefore, to be derived from the directors and the managers, rather than those that might be carrying out the work. The company's intention will, therefore, depend upon: the nature of the matter that is being considered; the position of the director or manager; and other relevant facts of the particular case. This principle has been affirmed in subsequent cases, in particular by Lord Reid in *Tesco v Natrass* in the House of Lords:

‘Normally the board of directors, the managing director and perhaps other superior officers of a company carry out the functions of management and speak and act as the company. Their subordinates do not. They carry out orders from above and it can make no difference that they are given some measure of discretion. But the board of directors may delegate some part of their functions of management giving to their delegate full discretion to act independently of instructions from them. I see no difficulty in holding that they have thereby put such a delegate in their place so that within the scope of the delegation, he can act as the company. It may not always be easy to draw the line but there are cases in which the line must be drawn.’⁵⁷

Lord Reid confirms the approach of Denning LJ, but notes that it may be possible for the directors or senior managers to delegate, in this instance, fundamental decision-making processes required during the course of the running of a construction contract. In the absence of such delegation, it is arguable that those whom must be ‘aware’ are the directors and managers who constitute the ‘directing mind’ of the company.

The prevention principle

The prevention principle may also apply in respect of any employer's claim for liquidated damages. If the contractor does not make a claim, then the project manager cannot extend the Completion Date under NEC3, and so an employer will be entitled to liquidated damages. However, those liquidated damages could be in respect of a period where the employer had caused delay. the employer can only recover losses for delay in completion for which the employer is not, itself, liable.

It may be that some will argue that time has thus been set ‘at large’. If an employer is unable to give an extension of time (on the basis that the contractor did not give a clause 61.3 notice) that would otherwise be due, then the contractor may argue that it is relieved of the obligation to complete the works by the specified date. Arguably, where a delaying event has been caused by the employer, and there is ordinarily an obligation on the employer to give an extension of time so as to alleviate the contractor from liquidated damages, but the employer is unable to do so, then time will become at large.⁵⁸ it must be remembered that the purpose of the extension of time provisions is quite simply to allow the employer the benefit of the liquidated damages

57 *Tesco Supermarkets Ltd v Natrass* [1972] AC 153, HL, page 171; also [1971] 2 WLR 1166, [1971] 2 All ER 127. The same approach was applied in *KR v Royal & Sun*

Alliance plc [2006] EWCA Civ 1454, [2007] 1 All ER (Comm) 161, [2007] Bus LR 139.
58 *Peak Construction (Liverpool) Ltd v McKinney Foundations Ltd* (1970) 1 BLR 114, CA.

provisions where the contractor is in delay, but only where the employer has not caused any of that delay.

The English legal principle of prevention means that an employer cannot benefit from its breach. If, therefore, there is concurrency of delay and the employer refuses to award an extension of time (thus alleviating the contractual liquidated damages), then the contractor may be freed from those liquidated damages in any event.

It might also be said that the true cause of this loss was not the employer, but the contractor's failure to issue a notice complying with clause 61.3. Until recently, judgments – such as they were – had been divided. The Australian case of *Gaymark Investments v Walter Construction Group* follows the English case of *Peak v McKinney*, but goes further, holding that liquidated damages were irrecoverable when the contractor had failed to serve a notice in time; the completion date could not be identified, since time had become 'at large'.⁵⁹ The alternative approach of *City Inn* suggests a different conclusion: straightforward application of the time-bar.⁶⁰

The key issue in a case like this is: whose acts or omissions under the contract, or breaches of contract, are the events that lead to the loss? Regardless of any acts, omission or breaches of the employer, can the loss be treated as caused by the contractor not having received an extension of time, having failed to issue a clause 61.3 notice in time?

This issue was recently considered in *Multiplex v Honeywell Control Systems*.⁶¹ Multiplex was the main contractor building the new national stadium at Wembley and Honeywell was one of the subcontractors. The claimant in the action was Multiplex, and Honeywell the defendant. The key question in this case was whether time was set 'at large' under Honeywell's subcontract. In other words, had Honeywell's contractual obligation to complete within 60 weeks (subject to any extensions of time) fallen away and been replaced with an obligation to complete within a reasonable time and/or reasonably in accordance with the progress of the main contract works?

Clause 11 required the subcontractor to carry out and complete works in accordance with the subcontract. In particular, the subcontractor acknowledged, at clause 11.1.2, that:

'... the Contractor could suffer loss and/or expense and/or damage if such time related matters [were] not complied with ...'

The key notice (or 'time-bar') provisions were clauses 11.1.3 and 11.2.1:

'11.1.3 It shall be a condition precedent to the Sub-Contractor's entitlement to any extension of time under clause 11, that he shall have served all necessary notices on the Contractor by the dates specified and

59 *Gaymark Investments Pty Ltd v Walter Construction Group Ltd* [1999] NTSC 143, (2000) 16 BCL 449; *Peak v McKinney*: note 58.

60 *City Inn*: note 47 and its linked main text.

61 *Multiplex Constructions (UK) Ltd v Honeywell Control Systems Ltd (No 2)* [2007] EWHC 447 (TCC), [2007] BLR 195, 111 Con LR 78.

provided all necessary supporting information including but not limited to causation and effect programmes, labour, plant and materials resource schedules and critical path analysis programmes and the like. In the event the Sub-Contractor fails to notify the Contractor by the dates specified and/or fails to provide any necessary supporting information then he shall waive his right, both under the Contract and at common law, in equity and/or to pursuant to statute to any entitlement to an extension of time under this clause 11.’

‘11.2.1 If and whenever it becomes apparent or should have become apparent to an experienced and competent Sub-Contractor that the commencement, progress or Completion of the Sub Contract Works or any part thereof is being or is likely to be delayed, the Sub-Contractor shall forthwith give written notice to the Contractor of the material circumstances including, in so far as the Sub-Contractor is able, the cause or causes of the delay and identify in such notice any event which in his opinion is a Relevant Event.’

Multiplex sought a declaration from the Technology and Construction Court that, on the true construction of the subcontract, clause 11 provided a mechanism for extending the period for completion of the subcontract works in respect of any delay caused by an instruction under the contract. In particular, that such an instruction would not put time at large. In other words, the contract provided a mechanism for extensions of time in order to fix a new completion date, such that any damages could not be said to be a penalty.

Several authorities, some well known, were cited and discussed, in particular *Holme v Guppy*,⁶² *Dodd v Churton*,⁶³ *Peak v McKinney*,⁶⁴ and *Trollope & Colls v North West Metropolitan Regional Hospital Board*.⁶⁵ Jackson J (as he then was) derived three propositions from these:

- ‘(i) Actions by the Employer which are perfectly legitimate under a construction contract may still be characterised as prevention, if those actions cause delay beyond the contractual completion date.
- (ii) Acts of prevention by an Employer do not set time at large, if the contract provides for extension of time in respect of those events.
- (iii) In so far as the extension of time clause is ambiguous, it should be construed in favour of the contractor.’⁶⁶

Honeywell argued that there was no power to award an extension of time in respect of a direction given under the variations provisions of the contract. This, they argued, meant that a direction would lead to time being rendered at large. The judge did not accept that proposition. He concluded that directions issued under the variation clause 4.2 may have no effect at all upon the duration of the works. On the other hand, those that did have an effect would

62 *Holme v Guppy* (1838) 3 M & LJ 387 (150 ER 1195), Ct of Exchequer.

63 *Dodd v Churton* [1897] 1 QB 562, CA.

64 *Peak v McKinney*: note 58.

65 *Trollope & Colls Ltd v North West Metropolitan Regional Hospital Board* [1973] 1 WLR 601, [1973] 2 All ER 260, 9 BLR 60, HL.

66 *Multiplex v Honeywell*, note 61, para [56].

be variations under clause 4.2 and then would be recognised under the extension of time provisions.

Honeywell also argued that Multiplex failed to review the overall programme or consider and properly award extensions of time. Once again, these did not render the extension of time provisions inoperative.

Relying on the Australian decision of *Gaymark*,⁶⁷ Honeywell argued that a failure to comply with the clause was sufficient to put time at large. In that case, the contract provided that the contractor would only obtain an extension of time if notices had been submitted under clause 19.2 of the contract. That in turn relied upon *Peak Construction v McKinney*,⁶⁸ in which the House of Lords said that if an employer wished to recover liquidated damages because a contractor had failed to complete on time, then the employer could not do so where any of the delay was due to the employer's own fault or breach of contract.

The extension of time provisions in a contract should, therefore, provide for an extension of time in respect of any fault or breach on the part of the employer. *Gaymark* held that the inability to give an extension of time because of a contractor's failure to provide a notice meant that time was set at large;⁶⁹ by contrast, in *City Inn* the court concluded that the breach was not the employer's inability to grant an extension of time, the loss having instead been caused by the contractor's failure to serve an appropriate notice – or, indeed, apply its mind to whether a notice was required.⁷⁰

Jackson J also considered the use of 'the prevention principle' in *Gaymark*,⁷¹ concluding that it was not clearly English law and that the approach of *City*

67 *Gaymark*: note 59 and its linked main text.

68 *Peak v McKinney*: note 58.

69 *Gaymark*: note 59 and its linked main text.

70 *City Inn*: note 47 and its linked main text. On appeal, the Inner House held that Shepherd was not in breach of contract in failing to issue notices under clause 13. However, if Shepherd had issued notices, then it might have been relieved of liability under the liquidated damages clause 23 (see last sentence of para [25] of the judgment). As a result, Shepherd was not 'in breach of' clause 13, but had incurred liability under clause 23.

71 Hamish Lal, note 43, refers on this point to Ellis Baker, James Bremen & Anthony Lavers, 'The Development of the Prevention Principle in English and Australian Jurisdictions' [2005] ICLR 197, page 211; also to I N Duncan Wallace, 'Liquidated Damages Down Under: Prevention by Whom?' (2002) 7:2 Construction and Engineering Law 23, where Duncan Wallace holds that *Gaymark* represents 'a misunderstanding of the basis of the prevention theory' and 'a mistaken understanding of the inherently consensual and interpretative basis of the prevention principle'. In particular, he says of *Gaymark*: 'Neither Bailey J nor the arbitrator ... discussed or noted the practical need which justifies a strict notice requirement in all EOT matters (due to the Contractor's more intimate knowledge of its own construction intentions and so the critical path significance of an EOT event and also to give the owner an opportunity as, for example, by withdrawing an instruction or varying the work – to avoid or reduce delay to completion of which he has been notified). Nor was there any recognition that, precisely for these reasons, strict notice would be even more justifiable where random acts or instructions of the owner or his Superintendent ... could later be said to be acts of prevention'.

*Inn*⁷² was to be preferred. He thought that there was considerable force in Professor Wallace's criticisms of *Gaymark*, noting that contractual terms requiring a contractor to give prompt notice of delay serve a useful purpose:

'... such notice enables matters to be investigated while they are still current. Furthermore, such notice sometimes gives the employer the opportunity to withdraw instructions when the financial consequences become apparent. If *Gaymark* is good law, then a contractor could disregard with impunity any provision making proper notice a condition precedent. At his option the contractor could set time at large.'⁷³

He concluded:

'If the facts are that it was possible to comply with clause 11.1.3 that Honeywell simply failed to do so (whether or not deliberately), then those facts do not set time at large.'⁷⁴

Honeywell had a further argument in respect of the effect of an earlier settlement agreement between Multiplex and the employer, Wembley National Stadium Ltd, but Jackson J concluded that this did not entitle Honeywell to any relief. In the absence of arguments drawn from equity, it therefore seems that there is a high chance that the time-bar in NEC3 clause 61.3 will be enforced as a condition precedent.

G Assessing compensation

Most standard forms of contract, and even bespoke ones, make a clear distinction between the assessment of any changes to time and any changes to cost. By contrast, the NEC approach is one of a composite assessment of changes to time and prices as a result of each compensation event. The intention under NEC3 is that the contractor assesses the time and cost implications of a compensation event, contained in a quotation in accordance with clause 62.2:

'Quotations for compensation events comprise proposed changes to the Prices and any delay to the Completion Date and Key Dates assessed by the *Contractor*. The *Contractor* submits details of his assessment with each quotation. If the programme for remaining work is altered by the compensation event, the *Contractor* includes the alterations to the Accepted Programme in his quotation.'

The responsibility passes to the project manager in four situations (clause 64.1):

- 'The *Project Manager* assesses a compensation event
- if the *Contractor* has not submitted a quotation and details of his assessment within the time allowed,

72 *City Inn*: note 47.

73 *Multiplex v Honeywell*, note 6161, para [103].

74 *Multiplex v Honeywell*, note 6161, para [105].

- if the *Project Manager* decides that the *Contractor* has not assessed the compensation event correctly in a quotation and he does not instruct the *Contractor* to submit a revised quotation,
- if, when the *Contractor* submits quotations for a compensation event, he has not submitted a programme or alterations to a programme, which this contract requires him to submit or
- if, when the *Contractor* submits quotation for a compensation event, the *Project Manager* has not accepted the *Contractor's* latest programme for one of the reasons stated in this contract.'

Clause 63.6 permits allowance to be made for risk which reflects practice as contractors commonly price risk when tendering. Clause 63.7, however, then operates with the previous clause in mind in order to protect the employer's interests. Clauses 63.6 and 63.7 read as follows:

'Assessment of the effect of a compensation event includes risk allowances for cost and time for matters which have a significant chance of occurring and are at the *Contractor's* risk under this contract.

Assessments are based upon the assumptions that the *Contractor* reacts competently and promptly to the compensation event, that any Defined Cost and time due to the event are reasonably incurred and that the Accepted Programme can be changed.'

The assessment involves producing estimates and is, therefore, different from seeking to ascertain the actual delay or addition cost incurred. The reference to 'competently' is slightly unclear as there is no defined standard of competence. Clauses 61.5 and 63.5, however, refer to 'an experienced Contractor' but, again, this has a degree of subjectivity.

Importantly, the assessments – whether for time or cost – must be reasonable as well as being reasonably incurred. The contractor may as a consequence be obliged to alter the accepted programme.

Clause 63.5 reads:

'If the *Project Manager* has notified the *Contractor* of his decision that the *Contractor* did not give an early warning of a compensation event which an experienced *Contractor* could have given, the event is assessed as if the *Contractor* had given early warning.'

The contract does not require the project manager to state what would have occurred if early warning had been given. The clause simply requires the assessment to consider what the position would have been if early warning had been given by the contractor.

The contract also deals with the fact that the assessment might be inaccurate. Clause 65.2 states:

'The assessment of a compensation event is not revised if a forecast upon which it is based is shown by later recorded information to have been wrong.'

The aim is to achieve finality and cost certainty on an ongoing basis as the project progresses, through the use of forecasts both in terms of delay and costs. However, a qualification is provided by clause 61.6 for situations where the project manager decides that the effects of a compensation event are too uncertain to be forecast reasonably. In that circumstance the project manager then states the new assumptions and the assessment is based on those assumptions. If any of those assumptions are found to be incorrect at a later point in time, the project manager notifies a correction. This notification is a compensation event that leads to a second assessment, based this time on the revised assumptions.

The case of *Atkins v Secretary of State for Transport* deals with compensation event provisions.⁷⁵ Atkins sought to challenge an arbitrator's award under section 68 of the Arbitration Act 1996 on the grounds that there was a 'serious irregularity', said to be a failure on the part of the arbitrator to determine the issue put to him.

The dispute arose out of a management and construction contract for a number of trunk roads in East Anglia. Atkins came across a greater number of potholes (which it had to repair) than it had expected and claimed extra payment, on the basis that this constituted a compensation event under the contract. An adjudicator agreed with Atkins, but the Authority (the defendant) did not accept the decision and referred the dispute to arbitration.

The contract contained a version of the NEC3 conditions, albeit somewhat modified. Akenhead J noted that whilst the NEC3 terms are seen by many as providing material support to assist the parties to avoid disputes, and ultimately to resolve any disputes that do arise, there are also:

'... some siren or other voices which criticise these Conditions for some loose language, which is mostly in the present tense, which can give rise to confusion as to whether and to what extent actual obligations and liabilities actually arise.'⁷⁶

The contract was on a lump sum basis, subject to Atkins' right to claim relief if a 'compensation event' occurred. Sub-clause 60.1(11) stated that a compensation event arose where:

'The Provider encounters a defect in the physical condition of the Area Network which

- is not revealed by the Network Information or by any other publicly available information referred to in the Network Information,
- was not evident from a visual inspection or routine survey of the Area Network at the Contract Date,
- an experienced contractor or consultant acting with reasonable diligence could not reasonably have discovered prior to the Contract Date and

75 *Atkins Ltd v Secretary of State for Transport* [2013] EWHC 139 (TCC), [2013] BLR 193, 146 Con LR 169.

76 *Atkins*, note 7575, para [9].

- an experienced contractor or consultant would have judged at the Contract Date to have such a small chance of being present that it would have been unreasonable for him to have allowed for it.

Only the difference between the physical conditions encountered and those for which it would have been reasonable to have allowed is taken into account in assessing a compensation event.’⁷⁷

Atkins placed some reliance on the fourth requirement of the sub-clause. However, the judge noted that there was nothing in the language of the clause which expressly suggested that the number of defects was an important element in the compensation event equation. This meant that it was very difficult to conclude that an excess number of potholes, over and above a reasonable number which could be considered to have been allowed for, can form the basis for a compensation event.

The judge felt that one had to ask whether, as a matter of an overall businesslike or commercial interpretation, this bullet point requirement must be read as meaning, in effect, that where the number of potholes (in this instance) has exceeded the number which might be determined as being a maximum that an experienced contractor/consultant might reasonably have allowed for in its pricing, each and every pothole encountered above that number is a defect which such a contractor/consultant would not reasonably have allowed for.

As a first point, the judge commented on the practical difficulties of determining how many potholes would constitute an excessive number. It would be ‘an extremely difficult and probably artificial exercise’ to try and establish this.⁷⁸ Further, the judge did not consider that there is any commercial logic or common sense in defining the contract as enabling the volume of individual defects to be part of the equation. The concentration in the sub-clause was on ‘a defect in the physical condition’ (a pothole in this instance) which would objectively be judged initially as having had such a small chance of being present that it would not reasonably have been allowed for within the pricing.

Taking a commercial view, the judge noted that the contract was a lump sum as opposed to a re-measurement contract. This meant that the parties collectively take a risk that the defects to be addressed will be more or less in number and more or less in terms of expense than the contract lump sum allowed for. Thus, the Authority may end up paying much more than it might have done through the lump sum if the defects turn out to be a lot less than the lump sum allowed for; Atkins would then make correspondingly additional and non-anticipated extra profit. Conversely, the Authority may end up paying less if the defects to be addressed turn out to be more in number with Atkins making less profit or incurring more cost than it had anticipated. The

⁷⁷ *Atkins*, note 75, para [12].

⁷⁸ *Atkins*, note 75, para [31].

judge concluded that: ‘There is nothing commercially unfair or indeed unusual in the parties taking these sorts of risk.’⁷⁹

The Authority also raised the issue of the number of compensation event notices that would be required if Atkins’ interpretation was accepted; essentially, a separate notice would be required for each pothole. Whilst the judge felt that this was a ‘fair point’, it was not one which could be said to be determinative of the issue. In cases such as these, the court can only intervene in respect of any established irregularity ‘as has caused or will cause substantial injustice’.⁸⁰ The judge did not consider that the arbitrator was wrong in his overall reasoning and conclusions. It, therefore, followed that there was no substantial injustice.

Assessing time

Under NEC3, delay to the completion date is assessed by the contractor in his quotation where there is an accepted programme. The aim is that the contractor uses the accepted programme to quantify the forecast delay to the completion date in accordance with clause 63.3, which provides:

‘A delay to the Completion Date is assessed as the length of time that, due to the compensation event, planned Completion is later than planned Completion as shown on the Accepted Programme.’

If there is no accepted programme, the project manager assesses the compensation event using his own assessment of the programme for the remaining work under clause 64.2. The assessment concerns delay to planned completion as a result of the compensation event. The analysis is intended to be prospective rather than retrospective.

The assessment of a compensation event involves the assessment of any changes to the accepted programme. This might, in accordance with good project management procedures, lead one to simply consider whether the completion date or key dates are going to be delayed by consideration of an impact on the critical path.

This might traditionally be considered as an extension of time analysis; however, consideration also needs to be given quite separately to the possibility of disruption. While this is a financial consideration rather than one of time, it is resource driven and the allowance is usually one which requires consideration of the methodology and programme, as well as the resources that were intended to be used and have, in fact, been used in relation to the project.

Assessing money

A typical claim for disruption comprises a claim for increased costs for labour, plant, materials or subcontractor costs due to inefficiency to the planned progress. Such claims are available under NEC3 as they are under other forms

79 *Atkins*, note 75, para [33].

80 Arbitration Act 1996 s 68: see *Atkins*, note 75, para [37].

of contract. Clause 31.2 describes the information that the contractor shows on each programme, which includes:

‘... for each operation, a statement of how the *Contractor* plans to do the work identifying the principal Equipment and other resources which he plans to use ...’⁸¹

The programme, together with the method statements, should identify the planned resources for each activity. If a compensation event then increases the cost of the work, the contractor becomes entitled to additional payment.

The causal effect of the compensation event needs to be established. Under clause 63.1:

‘The changes to the Prices are assessed as the effect of the compensation event upon

- the actual Defined Cost of the work already done,
- the forecast Defined Cost of the work not yet done and
- the resulting Fee.’

If the compensation event arose from the project manager giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption, the date which divides the work already done from the work not yet done is the date of that communication. In all other cases the date is the date of the notification of the compensation event.

Clause 63.1 therefore requires identification of the Defined Cost of the work without the compensation, and the Defined Cost of the work (actual and forecast) as affected by the compensation event. The intention behind this is that the Defined Cost can be assessed by calculating the difference between (a) the cost of the resources in the programme and method statements; and (b) the revised forecast cost of the work affected by the compensation event, as shown in the amended programme and method statements.

Clearly, the assessment will be less accurate if the contractor has failed to provide sufficiently detailed programme and method statements. Notably, rates and prices are not used unless the project manager and the contractor agree otherwise. It can, however, seem counter intuitive to base an assessment on a forecast when records are available which disclose the actual additional costs caused by the compensation event.

Burden of proof

The NEC3 appears to suggest that each compensation event should be notified and assessed individually. However, in practice, it is unlikely that this will be the approach used. There may be particular difficulties where there are a number of events affecting progress at any given time or location.

81 For the full text of clause 31.2, see section D above.

The flexibility that comes hand in hand with forecasting the effect of an event may serve to reduce the onus of providing cause and effect that exists under other forms of contract. This appears to create a fiction upon which any compensation is based. The onus of proving that a particular cause has had an effect upon time and cost is blurred by the approach of assessing a compensation event in a more global manner. Nonetheless, care needs to be taken to avoid breaching the global claims problems that must still be relevant in any contractual claim.

In fact, clause 61.6 allows the project manager to state an assumption to the effect that the event will not cause delay or disruption so that the actual effect can be addressed at a later stage when the actual effect is known. This perhaps further emphasises that the assessment is more hypothetical than actual in the absence of the project manager instructing assessment based upon the actual effect.

The burden of proof is on the contractor to demonstrate damages incurred by a breach by the employer or a change to the contract. However, as mentioned, the NEC3 requires assessment for each compensation event by reference to the programme and defined cost. As Akenhead J said in *Water Lilly v Mackay*:

‘Ultimately, claims by contractors for delay or disruption related loss and expense must be proved as a matter of fact. Thus, the Contractor has to demonstrate on a balance of probabilities that, first, events occurred which entitle it to loss and expense, secondly, that those events caused delay and/or disruption and thirdly that such delay or disruption caused it to incur loss and/or expense (or loss and damage as the case may be).’⁸²

Time for payment of a compensation event

The amount due is the price for work done to date, plus other amounts to be paid to the contractor less anything to be retained.⁸³ The project manager assesses the amount due on each assessment date and he is to certify payment in one week of each assessment date. Certified payments are then to be made within three weeks of that date.⁸⁴ There is, therefore, a reasonably typical monthly gross valuation process, subject to the deduction of retention and any other amounts that might be properly deducted under the contract.

If compensation events are carried out which attract additional payment, then the value of them will become due either because they are a change to the price or simply because they are other amounts due to be paid to the contractor. There is a positive obligation on the project manager to assess the amount due to the contractor in respect of a compensation event that is in fact being carried out or is in the process of being carried out.

82 *Walter Lilly & Co Ltd v Mackay* [2012] EWHC 1773 (TCC), [2012] BLR 503, 143 Con LR 79, (2012) 28 Const LJ 622, para [486(a)].

83 NEC3, clause 50.2.

84 NEC3, clause 51.2.

The consequence of this surely is that the project manager will need, in circumstances where a quotation is not accepted, to carry out his own assessment within sufficient time to allow for the proper valuation within the next appropriate assessment period after instruction of and/or carrying out of the whole or part of the compensation event.

H Disputes

Types of procedure

The principal dispute resolution procedure in NEC3 is adjudication. The parties have a choice: Option W1 applies unless the Housing Grants, Construction & Regeneration Act 1996 applies. If the 1996 Act applies, then Option W2 is appropriate.

This is a significant departure from NEC2. The adjudication procedure in NEC2 imposed minimum time periods that a referring party had to comply with before they could issue a referral to adjudication. However, section 108(3) of the 1996 Act requires a construction contract to provide that either party can ‘at any time’ refer a dispute to adjudication. Since NEC2 fettered this ability, it did not comply with the 1996 Act. As a result, either party could ignore the adjudication provisions in NEC2 and refer any dispute at any time under the 1996 Act, in accordance with the adjudication procedure set out in the statutory Scheme for Construction Contracts.⁸⁵ NEC3 has dealt with this problem by providing a 1996 Act-compliant procedure as Option W2, retaining the original NEC2 adjudication procedure as Option W1.

Option W1 identifies which party may refer a dispute to an adjudicator and when. In brief:

- A dispute about an action of the project manager or supervisor may be referred by the contractor between two and four weeks after the contractor’s notification of the dispute to the employer and project manager. The notification must be made not more than four weeks after the contractor became aware of the action, thus emphasising the need to resolve issues during the life of the project and while the events are fresh in everyone’s mind. In similar circumstances, the contractor may also refer a dispute about the project manager or supervisor not having taken a particular course of action.
- The employer may refer a dispute about a quotation for a compensation event which has been treated as having been accepted. Once again, the employer may refer the dispute to an adjudicator between two and four weeks after the project manager’s notification of the dispute to the employer and the contractor. That notification must be made not more than four weeks after the quotation was treated as accepted.

85 The Scheme for Construction Contracts (England and Wales) Regulations 1998, SI 1998/649, as now modified by SI 2011/2333 (England) and SI 2011/1715 (Wales). Separate regulations apply in Scotland and Northern Ireland.

- Further, either party may refer a dispute about any other matter between two and four weeks after the notification of the dispute to the other party and the project manager.
- The above times for notifying and referring a dispute may be extended by the project manager if the contractor and project manager agree to the extension before the notice or referral is due.⁸⁶

This is the default procedure, which can be used by either party where the 1996 Act does not apply. It is not necessary to identify it by selecting an option in the contract data.

However, if the NEC contract is used in another country where legislation provides for adjudication or adjudication-backed payment, then there is a high chance that Option W1 will not comply with the local legislation. If so, the dispute resolution procedures may be entirely replaced by that local legislation.⁸⁷

A truly international form would have provided for a third option, when neither of Options W1 and W2 is appropriate, thus placing the onus on the employer to insert a dispute resolution procedure that complies with the law of the place where the contract is being carried out. Local branches of the NEC Users' Group around the world might then be able to develop short W option clauses for particular jurisdictions, in order to assist in the wider international use of NEC3.

The party referring the dispute to the adjudicator must include 'information' with the referral. This is presumably the supporting documentation and explanation of the matter or matters in dispute. Any further information is to be provided within four weeks of the referral.⁸⁸ The adjudicator is to decide the dispute, with reasons, within four weeks of the end of the period from receipt of the information. The period may be extended by agreement between the parties. The minimum period for adjudication appears, therefore, to be eight weeks.

Option W2 provides the adjudication procedure to be used where the 1996 Act applies. Briefly:

- A dispute may be referred to the adjudicator by a party at any time, but before a party refers the dispute to the adjudicator, he must give notice of the adjudication to the other party and provide a brief description of the dispute and the decision which he wishes the adjudicator to make. If the adjudicator is named in the contract data, the referring party must send a copy of the notice of adjudication to the adjudicator when it is issued.
- Within three days of receipt of the notice, the adjudicator must notify the parties whether he is able to decide the dispute, and if he is not able,

86 NEC3, Option W1.3(2).

87 See HH Humphrey Lloyd QC, 'Some thoughts on NEC3' [2008] ICLR 468 for further analysis of the NEC3 adjudication provisions.

88 NEC3, Option W1.3(3).

confirm he has resigned. If he does not so notify the parties within three days, either party may act as if the adjudicator has resigned.

- The referring party must, within seven days of giving notice of the adjudication, refer the dispute to the adjudicator and provide the adjudicator with the information on which he relies, including any supporting documentation. The referring party must also provide this information to the other party. Any further information must be submitted to the adjudicator within 14 days of the referral.
- The adjudicator decides the dispute and notifies the parties and the project manager of his decision and reasons within 28 days of the date of the referral. This period can be extended by the consent of the parties.
- If the adjudicator does not make his decision within the time provided, the parties may agree to extend the period. If they do not so agree, either party may act as if the adjudicator has resigned.

The case of *WSP Cel v Dalkia* considered the NEC adjudication provisions.⁸⁹ Dalkia engaged WSP under a consultancy agreement. The 1996 Act did not apply but the consultancy agreement incorporated the NEC3 Professional Services Contract which contained adjudication provisions. Dalkia terminated the agreement after two years and WSP issued its final account seeking payment of compensation events and loss and expense.

Following Dalkia's failure to respond, WSP referred the matter to adjudication seeking declarations on the effect of the consultancy agreement's compensation events provisions on its right to refer the matter to adjudication. The adjudicator decided that WSP had a right to refer the matter to adjudication due to Dalkia's failure to respond to the loss and expense claim within time.

The parties subsequently entered into a consent agreement which was aimed at resolving the dispute. The agreement included (i) a right to refer outstanding matters to adjudication, and (ii) was subject to the exclusive jurisdiction of the adjudicator, whose decision was final and binding until revised by the court.

WSP subsequently referred its final account dispute to adjudication. Dalkia argued that (i) WSP was seeking to re-open issues which it was time barred from doing under the consultancy agreement; and (ii) that the adjudicator did not have jurisdiction to deal with the dispute. WSP argued that the adjudicator did have jurisdiction, relying upon the terms of the consent agreement.

The adjudicator decided that he did have jurisdiction under the terms of the consent agreement and awarded £1m to WSP. Dalkia issued a notice of dissatisfaction in accordance with the consultancy agreement and WSP commenced enforcement proceedings.

Ramsey J enforced the decision, holding that the consent agreement varied the terms of the consultancy agreement and gave the adjudicator jurisdiction to decide his own jurisdiction. *Obiter*, the court also found:

⁸⁹ *WSP Cel Ltd v Dalkia Utilities Services Plc* [2012] EWHC 2428 (TCC).

- There had been an *ad hoc* agreement giving the adjudicator jurisdiction;
- If the parties had not entered into the consent agreement, WSP would have been time barred from referring certain parts of the dispute to adjudication under the NEC3 dispute resolution procedure; and
- If the court had determined that the claims for compensation events should not have been referred to adjudication, the decision would have been severed.

Assessing disputes

If there is a dispute about a compensation event, the adjudicator is to ‘assess’ the time and money implications. This is by reference to the contract, where the contractor does not agree with the project manager’s assessment. There is, therefore, a dilemma. The contract requires an assessment to be made about an event which is happening or will happen in the future. By the time an adjudicator considers the assessment of an event, that event has most likely occurred.

Is an adjudicator to assess an event as if he were standing in the shoes of the project manager looking forward and at the time that the assessment should have been made, therefore taking into account what was known (and nothing more) at the time? Alternatively, is the adjudicator to base his assessment on the actual time and cost data information that was gathered during the event? In other words, with the benefit of a retrospective delay analysis and by reference to the actual costs incurred?

In principle, if the adjudicator is asked to determine the additional costs reasonably incurred, clause 63.1 requires the additional cost to be forecast from the date when the project manager instructed or should have instructed the contractor to submit quotations. If there is an accepted programme, the adjudicator should use the accepted programme to assess delay.

If, however, there is no such accepted programme, this presents a further dilemma as to whether the adjudicator should work on the basis of a retrospective delay analysis despite the NEC terms clearly requiring an accepted programme, which provides the starting point for the assessment of a compensation event. In the event that this situation arises, the adjudicator will have to make an assessment of the programmes advanced by the parties. Regardless of the adjudicator’s approach time is short and a written decision must be issued.

The decision is binding unless or until revised by ‘the tribunal’ (defined in Part 1 of the contract data). More importantly, the decision becomes final and binding unless one of the parties notifies the other that he is dissatisfied with the dispute and intends to refer it to the tribunal.⁹⁰ If the tribunal referred to in W1 is to be an arbitral tribunal, then Part 1 of the contract data also encourages the employer to specify the applicable arbitration procedure and

⁹⁰ Option W1.4(2).

the place where the arbitration is to be held, as well as the procedure for the appointment of the arbitrator.

J Conclusions

NEC3 is clearly a departure from the traditional approach to construction contract drafting. The use of simple short direct core clauses provides the basis for a range of construction contracts covering different procurement pathways. Secondary option clauses allow an employer to select particular terms which suit its particular requirements, or indeed a particular project.

The contract's proactive project management focus must be welcomed. Construction projects, regardless of their size, are complex and require careful planning. NEC3 builds upon that concept, attempting to engage the contractor in the process by the use of a simple early warning system (with adverse valuation principles, should the contractor fail to warn) as well as the optional partnering procedures. This collaborative partnering was one of the key themes of Sir Michael Latham's report.

If both parties are able to produce an accepted programme early on and then manage compensation events in accordance with that programme, then the impact on time and potentially the process may be reasonably objectively determined. However, where this system is not properly put in place or breaks down during the course of the works, it becomes more difficult to retrospectively assess changes to time and money that might be due to the contractor. The dilemma is perhaps even greater when a dispute is referred to the adjudicator. The adjudicator may find the procedures under the NEC have not been followed, but at the same time may also be presented with a useful retrospective delay analysis together with records which disclose the actual delay and additional costs.

Nonetheless, in practice, the success of a project depends on the forward thinking, planning and reasonableness of the individuals that manage, co-ordinate and carry out the work. The NEC3 attempts to do what only a contract can do: to capture a framework for the parties to follow but, at the same time, identify who bears which risk in the event that a problem materialises.

Overall, NEC3 is a contract that is now being adopted by some sectors of the construction industry within the UK, and internationally. It adopts a drafting philosophy that many argue supports modern good practice, based on the recommendations given by Sir Michael Latham 20 years ago. It is not fully there yet, but the influence of Sir Michael's report can still be seen today. His main themes are still the goals we strive for. This is evident from the countless reviews and briefs that came after the Latham Report which simply reiterate his visions.⁹¹

Given the backdrop to which Sir Michael Latham's report was first published back in 1994, it would be easy to suggest that his report was simply buoyed by

91 The Latham Report: note 1.

the economic gains of the 90s. However, Sir Michael's recommendations have survived two decades and a number of financial crises. This raises the question: will Latham's recommendations ever be outdated?

The construction industry has come a long way since the Latham Report, and though there are still a number of criticisms, it cannot be denied that 20 years on we are in a better position. If the use of NEC3 continues to develop across further sectors of the industry, and internationally, then there is no doubt that it will be the main construction contract of the future.

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construction law amongst all those involved
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