

'architect's risk'. By this the expert meant that Fosters could simply be required to do the design again, at their own cost, if they failed to comply with the budget first time around. This essentially came down to an acceptance that an architect must design to his client's brief. Any architect exercising reasonable skill and care would, if a client provides a budget, take that budget into consideration when in designing the project. It cannot simply be ignored.

Looked at another way, the best evidence of how much it would cost the contracting party to have such a design produced by an alternative architect was the cost Fosters were charging to do this. As a result, this amount could represent the measure of damages for breach of contract, calculated on an 'expectation' basis. It was not recovery of the sums paid to Fosters (and the other professionals) as such, it was using the sums paid to Fosters (and the other professionals) as the appropriate measure of the damages payable to the claiming party, to put it in the position it would have been in had Fosters complied with their obligations under the contract. It was using those sums as the measure of the expected loss. The same was true of other services. For example, quantity surveying services would be required on the successor scheme and so they would be incurred again. Accordingly they were recoverable from Fosters here.

5. NEC3 to NEC4 – evolution, not revolution; some fixes and some good ideas! Richard Patterson

5.1 Introduction

Many procurement people, especially in the public sector, will be familiar with NEC contracts in their third edition (NEC3). Many clients are delivering a significant proportion of their project spend using the ECC (NEC3, 2013a). Many will be using the Professional Services Contract (PSC) (NEC3, 2013b) to procure consultancy work. And, supported by a framework by Crown Commercial Services, many will be using the Term Service Contract (TSC) (NEC3, 2013c) to procure facilities management contracts for their buildings.

Back in June 2017, after 12 years of NEC and a lot of work by the drafting team, of which the author was a small part, NEC launched NEC4. The drafting team reviewed all the critiques and criticisms of the contract and all the suggestions received, including those posted online and including those in several active LinkedIn groups used by the NEC community. From that, the team drafted its own 'specification' for the changes required. All the contracts were updated and more were added to the family. An overriding intent was to bring the contracts closer together where they had drifted apart for no good reason. Some of the changes were 'fixes'; many were good new ideas. This article provides an overview of the author's view of the key changes in the 'main' (not the short) contracts, the ECC (NEC4, 2017a), PSC (NEC4, 2017b) and those common to the TSC (NEC4, 2017c); specifically

- new contracts
- new language
- new secondary options

- new features
- fixes and simplifications and
- additional changes in PSC4.

For readers seeking more detail, the hour-long online seminar the author gave on ECC4 with NEC User Group Secretary Rob Gerrard may be of interest (NEC4, 2017d). To see all the changes with a view of ECC3 and ECC4 'side by side' see NEC's new book *NEC3 and NEC4 Compared* by Rob Gerrard (2017).

5.2 New contracts

The NEC family was extended with the following.

- Design Build and Operate Contract – a single contract for providing a service which includes the design and build of assets to do so, or perhaps the upgrade of existing assets at any time in the 'service period'.
- Professional Services Subcontract – the PSC in a subcontract form.
- Term Service Subcontract – the TSC in a subcontract form.
- Dispute Resolution Services Contract, which includes for the members of the new Dispute Advisory Board in secondary option W3 and replaces the NEC3 Adjudicator's contract.

5.3 New language

The new contracts contain some important changes to the language of the contracts.

- No 'him' or 'his': all the new contracts have been redrafted to be gender neutral. For the author this is an important step forward. And it means no longer forever apologising on behalf of NEC to the women in the author's training sessions.
- Client: the employer is no more!
- Scope (ECC and TSC): whatever the contract, the document setting out requirements and constraints is now the 'Scope'. So, the ECC's works information and the TSC's service information are renamed the 'Scope'; which has always been the word used in the PSC.
- Early warning register: while giving NEC training, the author has to spend some time explaining that the NEC3's risk register is very different from any 'risk register' one may have running in parallel. Confusing. This simple name change will make everyone's life easier. The early warning register remains just the agenda for the next 'early waning meeting'.
- Client's liability: employer's risks are renamed client's liabilities, which better describes what they are – and always have been. Each is still a compensation event and an event for which the client is also liable for any 'knock-on costs' to the contractor or related claims against the contractor.

5.4 New secondary options

The following are the key new options.

- X15 the contractor's design (ECC only): this has been extended from ECC3's 'due skill and care' to include a

requirement for professional indemnity insurance, provisions regarding the use of the design and for retention of documents. Importantly the burden of proof is reversed from ECC3: it is now for the client to demonstrate that the contractor has not used ‘the skill and care normally used by professionals designing works similar to the works’.

- X10 information modelling (ECC, TSC and PSC): this is quite a radical development from NEC’s previously published guidance on using NEC with the Construction Industry Council’s protocol for building information modelling (BIM) (CIC, 2013). It is intended to be used without any separate protocol. As BIM grows rapidly in the industry, this will get a lot of use. It needs an article of its own.
- X21 whole life cost (ECC only): this is just a prompt to the contractor to propose changes that will reduce whole life cost. It effectively allows the contractor and project manager (on behalf of the client) to ‘do a deal’ within the contract rather than needing an addendum.
- X22 early contractor involvement (ECC only): the NEC’s previously published Z clauses to effect early contractor involvement as a two-stage process within a target or reimbursable contract are now included formally as a new secondary option.
- W1, W2 and W3 dispute resolution and avoidance: named ‘Senior Representatives’ of contractor and employer are set out in the contract. There are clear timescales for them to ‘do a deal’ before either party can take a dispute to adjudication. That is a requirement in option W1, but, because of the law in the UK, must be by agreement in option W2. A whole new option ‘W3 Dispute Avoidance Board’ (ECC only) is added, mainly targeted at the international market. A one- or three-person ‘board’ is paid to visit the site regularly and provide its ‘recommendation’ to avoid the parties going off to the ‘tribunal’ (arbitration or the courts). This concept has been included by Fidic (the International Federation of Consulting Engineers) in its contracts for years. It is one aspect of NEC4 that may help NEC better compete in the international market.

5.5 New features

- Value engineering (ECC and TSC only): the target contracts have always commercially incentivised the contractor to propose changes to the employer’s (now client’s) works information (now scope). This was oddly missing in the priced contract options A and B. (At Mott MacDonald this was typically introduced as a Z clause.) No longer: now if a proposal is accepted by the client the ‘Prices’ comes down by the assessed effect of the resulting compensation event multiplied by the ‘value engineering percentage’. The difference here is that the contractor therefore benefits by (100 – the value engineering percentage). This is not in PSC4.
- Programme deemed acceptance (ECC, PSC and task order programme in TSC4): this was a change called for by many in the industry to protect the contractor – and the project – from contract administrators that do not do their job by responding in time to submitted programmes. Now, if there is no

response in 2 weeks, the supplier (contractor (ECC and TSC), consultant (PSC)) can prompt. After a further week of silence, the programme is ‘treated as accepted’.

- Conclusive evidence of the final amount due: NEC3 has no ‘final account’. Instead it has only a clear last date to make an assessment of the amount due. NEC has responded to comments on this by adding in a completely new process with defined timescales to achieve ‘conclusive evidence’ of the final amount due. The process must be beneficial to both ‘sides’ and the words are clear. The author’s only concern is that it is straying a little from NEC’s use of plain English!
- Finalisation of defined cost: all NEC contracts allow the contract administrator to correct a previous assessment of the amount due. That is fine in principle but, under the ECC3 and TSC3 cost-based contracts, it did allow that contract administrator to go back to cost data from years ago to try to ‘find’ some (more) disallowed cost. Not very collaborative, or satisfactory. And it went totally against NEC’s principles of getting things sorted as one goes along. In NEC4 there is now a clear process for the supplier to offer up cost information ‘when a part of Defined Cost has been finalised’ (e.g. ECC4 clause 50.1). There is then a clear time-based process for the contract administrator and supplier to agree and so ‘finalise’ those costs.

5.6 Fixes/simplifications

Several of the changes might be considered as ‘fixes’ to known problems or simplifications following 12 years of learning. These include the following.

- Contractor applies for payment: the consultant under PSC has always had to request payment. That is now the case under all the main NEC contracts.
- Single fee percentage: ECC3 and TSC3 allowed the bidder to offer two different fee percentages. These were the ‘subcontracted fee percentage’ to cover overheads and profit on subcontractor’s costs and a separate ‘direct fee percentage’ on top of the contractor’s own costs. This was introduced in NEC3 to give tenderers the opportunity to reflect different overheads on subcontract costs. However, bidders often gave the same number for both and it complicated tender assessment. In NEC4, there is just the one ‘fee percentage’ – and that is now also in PSC4.
- Options A and B allow the cost of preparation of compensation events in defined cost: in the priced contracts in NEC3 the cost of preparing compensation events was expressly excluded from defined cost. This has generally been considered a little harsh on suppliers. When bidding, they have no idea how much they should allow for preparing quotations for an unknown number of unknown compensation events. That is partly corrected in NEC4 as such preparation costs are now no longer excluded. However, the problem of convincing some contract administrators that the resources to prepare those quotations cause an increase in the overall cost to the supplier remains.

- Simpler model of defined cost – priced options A and B: under the priced contracts defined cost is still only used for the assessment of compensation events. In NEC4
 - the shorter schedule of cost components (SSCC) is renamed the short schedule of cost components (this is simply because any one ECC contract now has just one schedule of cost components)
 - there are now tendered ‘people rates’ and so there is no need to drill down to the ‘real’ cost of people as seemed a little inappropriate in the priced ECC3 contracts
 - the contractor’s cost of his subcontractors is now the real cost it will have to pay the subcontractor, rather than the subcontractor’s ‘real’ costs, which were notoriously difficult to establish
 - there are no tendered ‘percentage for people overheads’ (SSCC41) – the costs covered by this in ECC3 are now paid as direct costs
 - similarly, there are no ‘percentage for manufacture and fabrication overheads’ (SSCC5) or ‘percentage for design overheads’ (SSCC6); for those people the contractor therefore recovers just the tendered rate, uplifted by the single overall fee percentage.
 - Simpler model of defined cost – cost-based options C, D, and E (ECC): in NEC4 the following hold true.
 - There is just one way of defining defined cost – the schedule of cost components (SCC). The SSCC (in ECC3 cost-based contracts only used for compensation event assessment and only by agreement) is no more. That will certainly simplify tendering and tender evaluation
 - There is no tendered ‘percentage for Working Area overheads’ – the costs covered by this in NEC3 are now paid as direct costs.
 - Again, similarly there is no ‘percentage for manufacture and fabrication overheads’ (SCC5) or ‘percentage for design overheads’ (SCC6).
 - The demise of the working area overheads is a significant change for those dealing with the detail of cost. On the plus side it will take away the problem of the contractor having to keep separate (and out of his assessment of defined cost) the ‘real’ cost items which were supposed to be covered by the tendered percentage. But it means paying the direct costs of, for example, the site agent’s laptop, the labourer’s replacement tape measure and the toilet paper for the office. Having no ‘easy’ tendered ‘percentage for people overheads’ (options A and B) and ‘percentage Working Area overheads’ (options C, D and E) will mean the contract administrator and supplier having to estimate the cost of these things in assessments of compensation events with delay implications. Perhaps they will agree a percentage to be applied! This deserves an article in its own right – and time will tell.
 - In NEC4 the client can state additional compensation events in the contract data part one, rather than having to use a Z clause. That entry appears next to ‘additional Client liabilities’ (employer’s risks under ECC3). Hence the person completing the contract data might at least be encouraged to work out the difference between the two. In ECC3 and TSC3 too many clients added ‘additional Employer’s risks’ in the contract data, without recognising the extra indemnity they were giving to the contractor over and above a ‘normal’ compensation event.
 - The process for a ‘proposed instruction’ now has its own clause. In NEC3 the contract administrator could ask for such instructions at will and, as noted above, under options A and B the supplier must prepare them for free. In NEC4 the cost of preparing them is allowable defined cost (in priced as well as cost-based contracts). Critically, if the instruction which has been priced is not given, the preparation of the quotation itself becomes a compensation event. Much fairer on the supplier.
 - NEC3 made clear the line between actual and forecast defined cost in the assessment of the cost of a compensation event. NEC4 helps by calling that date the ‘dividing date’ and, in the assessment of effects on time, the programme to be used is now clearly the one ‘current at the dividing date’. This seems to be a much clearer definition.
- ### 5.7 Key changes in PSC4
- As noted above many of the changes to ECC4 are apparent also in PSC4 and TSC4. The following are considered key additional changes in PSC4.
- Service manager: PSC3 had a secondary option for the employer to appoint an ‘Employer’s Agent’ to carry out defined roles of the employer. Instead, in PSC4, the clear majority of the day-to-day client-side management is carried out not by the client, but by a separately appointed ‘Service Manager’. In fact, as in the ECC and TSC, the client’s role is limited to payment, termination and disputes. The service manager has the actions equivalent to those of the project manager under the ECC. Of course, the service manager could be an employee of the client or may be a consultant acting on its behalf.
 - Scope provided by the consultant. The ECC has always had the ‘Works Information provided by the Contractor’. This is an opportunity to ask for information from the tenderer and include it in the contract. In contrast, PSC had just the one ‘Scope’. There was nowhere in the contract for a consultant’s ‘proposal’. PSC4 has introduced the concept of ‘Scope provided by the Consultant’. In contract data part two, the client decides if there will be any such document, and in the instructions to tenderers, the client will have to give an indication of what it wants from tenderers. As in the ECC, the ‘magic’ second bullet of clause 60.1(1) ensures that the scope from the client has priority. If the consultant’s scope has to be changed to meet the client’s scope, there is no compensation event.
 - Options C and E – real money, not rates: in the target and cost-reimbursable versions (C and E) of the ECC and TSC contracts, contractors have, for 20 years, had to open their

books because they are paid the 'real' costs of employing their people. They have had to get used to the idea. In contrast, consultants under the PSC have always been paid tendered 'staff rates'. The client has no idea of the consultant's real costs. Possibly the most radical change in PSC4 is that, in options C and E the consultant is now paid his 'Defined Cost' plus a tendered fee percentage. Like the ECC, that defined cost is set out in a 'Schedule of Cost Components'. And that document includes the real 'cost to employ' the consultant's own staff and the payments it makes to subcontractors. The intent of course is for transparency and for both 'sides' to be working collaboratively to minimise the same 'real' costs. It will be interesting to see if clients and consultants move to this brave new world and the additional bureaucracy it will entail. Some, I am sure will choose to revert to the 'People Rates' that make up the defined cost of people in the lump sum option A version of the contract.

5.8 Conclusion

None of the above changes the real fundamentals of the NEC; and for this author the changes are all positive. There are many existing contracts and frameworks using NEC3 and they will continue. However, for anyone looking to start preparing a new contract the only reason for not using NEC4 is that you will have to buy the new contract and update your people and your systems a little.

As ever, NEC will not solve any of your problems unless you invest properly in the training and the systems to support it.

REFERENCES

- CIC (Construction Industry Council) (2013) *Building Information Model (BIM) Protocol*. CIC, London, UK.
- Gerrard RA (2017) *NEC3 and NEC4 Compared*. ICE Publishing, London, UK.
- Hughes-Holland v. BPE Solicitors* [2017] UKSC 21.
- NEC3 (2013a) *Engineering and Construction Contract*. NEC, London, UK.
- NEC3 (2013b) *Professional Services Contract*. NEC, London, UK.
- NEC3 (2013c) *Term Service Contract*. NEC, London, UK.
- NEC4 (2017) *Engineering and Construction Contract*. NEC, London, UK.
- NEC4 (2017b) *Professional Services Contract*. NEC, London, UK.
- NEC4 (2017c) *Term Service Contract*. NEC, London, UK.
- NEC4 (2017d) <https://youtu.be/hfjI5qDVJDE> (accessed 19/12/2017).
- RIBA (Royal Institute of British Architects) (2013) *Plan of Work 2013*. RIBA, London, UK.
- Riva Properties Ltd & Ors v. Foster + Partners Ltd* [2017] EWHC 2574 (TCC).
- Singapore Government (1997) Evidence Act. *Chapter 97*. Singapore Government, Singapore.
- Singapore Government (2014) Supreme Court of Judicature Act. Rules of Court. *Chapter 322, R5*. Singapore Government, Singapore.
- SSE v. Hochtief* [2016] CSOH 177.
- UN (1958) *Convention on the Recognition and Enforcement of Foreign Arbitral Awards*. UN, New York, NY, USA.

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