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NEC ENGINEERING & CONSTRUCTION CONTRACT

1. Introduction

1.1 This paper provides an overview of the NEC Engineering & Construction Contract summarising the key features and structure of the NEC family of contracts. The NEC2 (2nd Edition) box set of contracts is available in the Planancy Technical Library and this paper will act as useful background when working on Contractor's Programmes and when analysing delay claims. The paper also outlines the key differences (there aren't too many) between NEC2 and the current edition, NEC3 and it emphasises the core time and cost clauses to look out for.

2. Brief background

2.1 The first edition of the NEC was published in 1993 – developed as a multi-disciplinary contract to assist good management practice and designed with simplicity, clarity and flexibility in mind. It accommodates the Contractor having full, part or no design responsibility and provides options for all types of contract such as competitive fixed price tenders, target contracts, cost reimbursable contracts and management contracts. The 3rd Edition of the NEC was published in 2005 and there have been various updates culminating in the latest version in April 2013.

2.2 The NEC suite of contracts is summarised in Appendix 1, with a brief description of each one. As a rule of thumb – the Contractor holds the greatest amount of risk under Options A and B and the least amount of risk under Options E and F.

3. Key features

3.1 The key features of the NEC include:

- Early collaboration and involvement between the Employer, Project Manager, Contractor and Subcontractor, where issues are identified and acted on via an Early Warning system.

- The Contractor proposes how to deal with problems that occur, including the cost and time implications and the Employer can then choose how they want to deal with the issue.

- The accepted Programme forms part of the NEC and is used to assess the impact of any events delaying the works, and any additional monies which may be due to the Contractor. Great emphasis is therefore placed on the Programme and on Programme Management (see 7 below).

3.2 If the NEC is used correctly, there should be no storing up of claims until after the works are completed – matters should be dealt with as they arise. However – this is not always the case.

3.3 The NEC generally requires a proactive approach and more man-hours/administration than the 'traditional' forms of contract, such as the JCT or ICE. However, problems occur when the Early Warning system in the NEC is not used as it should be or worse still – not used at all.

4. NEC Structure

4.1 All of the NEC contracts are constructed in the same way with 9 sections (core clauses) in every form, as follows:

1	*General*	Includes defined terms, interpretation, communications, ambiguities
2	*Contractor's main responsibilities*	Provision of works, design, people, subcontracting
3	*Time*	Starting, completion dates, programme, access, takeover, acceleration
4	*Testing & defects*	Tests & inspections, notifying defects, correcting defects, accepting defects, uncorrected defects
5	*Payment*	Assessing amounts due, payment provisions, pain share/gain share where appropriate
6	*Compensation events*	Events which will give rise to time and money and procedures for dealing with these
7	*Title*	For example – to plant & materials
8	*Risks & insurance*	Contractor & employer risks, insurance requirements
9	*Termination*	Grounds, procedures and payments on/for termination

4.2 Please note that each of the Options A to F also have a handful of their own individual clauses (main option clauses) which supplement the core clauses above.

5. Key differences between NEC2 & NEC3

5.1 The good news is that there is not a significant difference between the two editions. Changes were made in NEC3 to iron out inconsistencies in NEC2 and to provide greater clarity. They are summarised as follows:

5.2 Risk Register

In NEC2, the Contractor is made responsible for all risks that are not expressly allocated to the Employer. The clause hasn't change but the concept of the Risk Register is introduced – which applies documented risk management procedures to identified hazards. Initially compiled by the Employer, the Risk Register will be added to as part of the early warning process.

5.3 Key Dates

For the new concept *'Key Date'* – it is necessary to define what work is required to be done by this date. Key Dates are specified in the Contract Data as is the work to be done by that date. The Contractor is then obliged on his Programme to show when he plans to carry out the work relevant to the Key Date.

5.4 Access

In NEC2 – Working Areas were defined as the whole area. In NEC3, it is only those parts of the Working Area that are necessary for providing the works. So Access Dates are referred to rather than Possession Dates to reflect the concept of allowing access but not possession.

5.5 Payment – non-fixed price (Options C to F)

The NEC2 definition of '*Price of Work Done to Date'* was the actual cost which the Contractor is paid plus the fee. This was considered to have negative cash flow implications for Contractors as they could not claim for sub-contracted work as part of an assessment until such payments had actually been made. The definition is changed in NEC3 stating '*Total Defined Cost'* which is forecast by the Project Manager – not ideal but avoids the cash flow problem.

5.6 Force Majeure

A new clause (19) is added in NEC3 relating to events that prevent the Contractor completing the works or make it impossible for him to complete on time. Such events are dealt with as Compensation Events under a new clause (60.1 (19)). NEC3 also provides for a new Employer ground for termination in recognition of the effect of a Force Majeure.

5.7 Compensation Events

The Compensation Event clause extends the period for notifying the Project Manager from 2 weeks to 8 weeks following the date that the Contractor becomes aware. There is no entitlement to claim after the 8 week period (the exception being when the PM should have notified the Contractor). NEC3 also states that where the PM doesn't notify or instruct, the Contractor can notify the PM of this failure and if the PM in turn fails to respond within 2 weeks, this is treated as acceptance by the PM of the Compensation Event.

A few more Compensation Events are also added in NEC3.

5.8 Disputes

Some of the requirements in NEC2 weren't compliant with the Scheme for Adjudication set out in the Housing Grants, Construction and Regeneration Act 1996 and these have been replaced by Options W1 & W2.

5.9 Secondary Option Clauses

A number of new Option Clauses are added in NEC3 covering Limitations of Liability, Delay Damages and Key Performance Indicators.

5.10 Contract Data

Contract Data has been changed to reflect the new terminology in NEC3 and there is also provision for different Defects Correction Periods for different parts of the Works.

6. The NEC and delay

6.1 Consistent with NEC3's overall objective to manage and resolve issues as the works progress, NEC3 takes the following approach:

- The parties are to act in a spirit of mutual trust and cooperation;
- The Programme (which has been submitted & accepted) is regularly updated to reflect actual progress and the impact upon the completion date;
- The parties must give early warnings of delays as soon as they become aware of them and seek to address those delays;
- To seek to pre-agree the time and cost consequences of compensation events before they are implemented; and
- To use the Programme to project the theoretical impact of a delay event.

6.2 A summary of the core clauses to look out for is shown in Appendix 2.

7. The significance of the Programme

7.1 The process of programming the works is emphasised much more in the NEC3 than it is in most other standard forms of contract. The Contractor is required to submit a detailed Programme to the Project Manager for acceptance at the start of the project and issue updated Programmes at regular intervals to take into account changes in the progress of the works. If the Contractor fails to provide a Programme at the start of the project, 25% of the sums due under the contract can be withheld until a Programme is submitted. If the Contractor fails to submit updated Programmes, the Project Manager can assess Compensation Events based on his own view of the progress of the works, which is likely to result in Compensation Events being assessed much less generously than the Contractor would like. In addition, without an up to date Programme, the Contractor will find it very difficult to demonstrate to an adjudicator what he considers his proper Compensation Event entitlement to be.

7.2 Problems can arise where the submission and acceptance of the first Programme takes longer than anticipated under the contract, leaving both the Contractor and Project Manager with no accepted Programme and hence a common baseline from which to plan, manage or monitor the progress of the works or assess the effect of any change – often grounds for dispute.

NEC3 makes provision for avoiding this situation by allowing a Programme to be identified in the contract data. This is not without potential problems as the tender process can overlook the question of the tender Programme’s compliance.

7.3 The Programme developed and submitted by the Contractor as part of his tender is generally intended as a demonstration that he has understood his obligations to provide the works and to inform the employer of any key assumptions regarding the timing and sequencing of the works. It may therefore not be fully compliant and/or sufficiently detailed for the purpose of an accepted Programme. Furthermore, as a consequence of post tender negotiations, the contractor’s Tender Programme may no longer reasonably demonstrate the obligations of the Contractor to provide the works.

Appendix 1 – Summary of the NEC suite of contracts

Contract	Brief description
ECC Option A – Priced Contract with Activity Schedules	The Contractor offers to provide the works for a sum of money. The contract provides for certain risks to be carried by the Employer which will result in the lump sum being adjusted if compensation events occur. The activity schedule is normally written by the Contractor since he is the one who knows what activities will be carried out. Each activity is priced as a lump sum by the Contractor which is the amount paid when he has completed the activity. In pricing an activity, the Contractor takes on responsibility for estimating quantities and resources, and assessing and pricing risks that are his.
ECC Option B – Priced Contract with Bill of Quantities	The Employer provides a bill of quantities which is priced by the Contractor. The contract price is the sum of prices for all items in the bill which may include lump sums for certain items. The Contractor (by means of re-measurement) is paid for the actual work carried out not correct, it is corrected and payment is made to the Contractor to reflect the actual work carried out. Under this option, unlike Option A, the Employer takes the risk of the correctness of the quantities. Option B would normally be used where the risk of change in quantities is relatively high.
ECC Option C – Target Contract with Activity Schedules	The Contractor tenders (or negotiates) a target price using an activity schedule. Each activity is priced as a lump sum and a fee is also tendered as a percentage for subcontract work and for the Contractor's own direct work. The initial target price is the sum of the activity prices and the fee. During the course of the contract, the target price is adjusted to cater for compensation events that are set out in the contract. Payment is made on the basis of actual costs with an incentive mechanism for the Contractor to minimise costs. Savings and over-runs are shared between the parties usually on a sliding scale. The sharing of risk in the target cost approach is likely to reduce the occurrence of disputes.
ECC Option D – Target Contract with Bill of Quantities	This is similar to Option C except that the target price is established by means of a bill of quantities rather than an activity schedule. During the course of the contract, the target price is adjusted to allow for changes

	of quantities as well as for compensation events so the Employer carries a greater risk than is the case with Option C.
ECC Option E – Cost Reimbursable Contract	Under this option the Contractor takes a very small risk since he is paid his actual cost plus the fee with only a small number of constraints to protect the Employer from inefficient working or incompetence by the Contractor. It is used when the work to be carried out cannot be defined at the outset and the risks are high. It may also be used for emergency work.
ECC Option F – Management Contract	This option is suitable for management contracts in which all or most of the work is done by sub-contractors, and the Contractor manages the procurement and the work undertaken by the sub-contractors. Payment is made to the Contractor for the cost of the sub-contracts plus a management fee. The Employer carries most of the risk.
ECS – Subcontract Contract	Allows the contractor to sub-let the project to a subcontractor imposing most of the clauses that he has within his headline contract. There is very little difference between the ECC and the ECS, other than the names of the parties are changed (contractor and subcontractor) and some of the timescales for contractual responses are altered to take into account the timescales required in the ECC contract.
ECS – Short Contract	This is an abbreviated version of the ECC contract and most suitable when there is considered *'low risk'* (not necessarily low value) on a project with little change expected. It doesn't use all of the processes of the ECC making it simpler and easier to manage.
ECS – Short Subcontract	Allows the contractor to sub-let a contract down the line to a subcontractor on a low risk project when his contract with the employer is an ECS Short Contract.
Professional Services Contract	This contract is for anyone providing a service (e.g. designer) rather than doing any physical construction works. Whilst they are producing a design for an employer or contractor, they would sign up and follow the clauses within the PSC. Most of the clauses are the same as that in the main ECC contract, so that all

	contractors, designers and subcontractors have pretty much the same obligations and processes to follow as each other.
Framework Contract	Parties enter into a *'framework'* of which work packages will then be let during the life of that framework. Any individual projects will then be awarded using one of the other contracts within the suite, meaning that the parties follow the headline clauses within the framework contract and then the individual clauses within the chosen contract for that package. Different work packages can be let using different contracts during the life of the framework.
Term Service Contract	For parties on a project that is operational or maintenance based, e.g. maintaining highway signage, where the contract is to ensure that a certain standard is maintained. This contract is not generally used for constructing new works, but can include some amount of betterment. There is also a *'Term Service Short Contract'* where the project is a relatively low risk project and is an abbreviated version of the main TSC.
Supply Contract/Short Supply Contract	This is for a supplier of supplies or goods to a project, and puts extra contractual requirements on them during their procurement/manufacture period. The Supply Contract is for big items of procurement, with the Short Supply Contract potentially being for more run of the mill procurement items on a project.
Adjudicator's Contract	If there is a dispute between the parties on a project then the Adjudicator will follow the clauses within this contract in order to come to a decision.

Guidance Notes & Flowcharts	For each of the different contracts listed above each comes with its own set of guidance notes and flowcharts which should aid understanding of the intent of the drafted clauses. The guidance notes expand on each clause to give extra substance and intent of the original drafters as to how a clause should be understood and interpreted. The flowcharts then map out each of the main processes within each contract and demonstrate how it should operate and what to do next if a party has or has not carried out the next contractual action.

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Appendix 2 - Summary of Core Clauses relating to Programme, Time & Delay

Core clause no.	Brief description
1. General	
16	**Early warning:** The Contractor & Project Manager give an early warning by notifying the other as soon as either becomes aware of any matter that could increase the total price, delay completion or impair the performance of the works.
3. Time	
30	**Starting, completion & key dates:** The obligation is on the Contractor to meet the conditions stated for each key date.
31	**The programme:** This clause lists all of the items that the Contractor would be expected to include in his programme including key dates and provisions for float and time risk. It is more than just a programme as it includes method statements and health & safety requirements. This clause also outlines the criteria for accepting the programme.
32	**Revising the programme:** On each revision, the Contractor has to show progress, the impact of compensation events and method of dealing with delay. This clause also outlines the criteria for accepting the revised programme.
6. Compensation events	
60	**Compensation events:** This clause lists all of the possible compensation events.
61	**Notifying compensation events:** Where compensation events have arisen from an instruction from either party – this clause outlines the process for notification.
62	**Quotations for compensation events:** The Contractor is obliged to submit a quotation for the compensation event within 3 weeks of an instruction. The Project Manager then has 2 weeks to accept, request a revised quotation or make his own assessment.
63	**Assessing compensation events:** This clause details how the compensation event is assessed in terms of its impact on cost and time.
64	**The Project Manager's assessments:** The criteria for permitting the Project Manager to make his own assessment of the value of a compensation event is outlined in this clause.
65	**Implementing compensation events:** The Project Manager implements each compensation event by notifying the Contractor of his intention to do so.
8. Risks and insurance	
80	**Employer's risks:** These include – claims and costs due to negligence or a fault of the Employer or his design and loss or damage to plant and materials.
81	**Contractor's risks:** Risks that are not carried by the Employer are carried by the Contractor.