

## **5. NEC Engineering and Construction Contract (ECC): the necessary interaction between the supervisor and the project manager: Richard Patterson**

### **5.1 Introduction**

As an NEC contracts specialist with consultant Mott MacDonald, the author is often asked about the interaction between the two contract administration roles in the NEC *Engineering and Construction Contract* (ECC; NEC3, 2013a) – the project manager and the supervisor. NEC publishes excellent books on each role (Mitchell and Trebes, 2015, 2016). This article focuses on the necessary interaction between the two for each to be able to do their jobs properly. It emphasises that significantly more communication between the two is necessary than is explicitly required in the contract.

NEC4 was launched in June 2017. There are no changes to the supervisor role from ECC3 to ECC4 (NEC4, 2017) but there is a new requirement for a quality management system. That is addressed towards the end of the article.

For ease of reading, the NEC convention of having defined terms in capitals and identified terms in italics is not used in this article other than in direct quotations.

### **5.2 The roles**

The drafters of the ECC3 made a conscious decision to separate the ‘client side’ roles of

- checking compliance (with the works information) and
- carrying out all other ‘contract management’.

The compliance role is carried out by a named ‘supervisor’, whose key roles in part 4 of the contract are witnessing and/or carrying out tests, instructing searches for defects and notifying defects. The supervisor also has limited roles in part 7 related to title. The majority of the other ‘client side’ actions under the contract are carried out by the named ‘project manager’. Both supervisor and project manager are appointed by the employer using either its own staff or appointing others to carry out the roles. On a small contract the same individual could be both supervisor and project manager. At the other extreme, on a major contract, the employer could appoint separate consultants for the two roles and each actor might have a significant team supporting them. If appropriate, the named project manager and supervisor may, according to clause 14.2, delegate certain actions to team members.

Most of the project manager’s actions can be described as ‘commercial’. But the project manager role is also ‘technical’ as it is the project manager – and only the project manager – who

- can change the works information (clause 14.3) and
- is required to accept designs submitted by the contractor (clause 21.2).

### **5.3 What must the project manager and the supervisor share?**

Clause 13 (communications) sets out how all communications must be managed under an ECC with each actor clearly responsible for their individual roles as emphasised by 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’. Both supervisor and project manager will be communicating generally directly with the contractor. Clause 13.6 states ‘the Project Manager issues his certificates to the Employer and the Contractor. The Supervisor issues his certificates to the Project Manager and the Contractor’. This clause only applies to ‘certificates’. Those from the project manager are

- payment (clause 51.1)
- completion (clause 30.2)
- take over (clause 35.3)
- termination (clause 90.1)
- final payment after termination (clause 90.4).

The only certificate from the supervisor is the

- defects certificate (clause 43.3).

Contractually then, the only communication that is required to be shared between the supervisor and the project manager is the supervisor’s defects certificate. Logically each might keep the other informed about what they are doing. The ECC is so process driven and logical that there are several suppliers of ‘in the cloud’ contract management software that facilitate – and prompt – all the communications required by the contract. Most such systems can allow

- the supervisor the right to see the communications between the project manager and the contractor and
- the project manager the right to see the communications between the supervisor and the contractor.

However, as this article will show, there are some communications that must be shared for the other actor to do their job, even though this is not explicit in the words of the ECC.

### **5.4 Defects**

#### **5.4.1 What is required to happen?**

The supervisor and the contractor notify each other of defects which they find (clause 42.2). These might become apparent either as a direct result of a failed test or from either supervisor or contractor simply noticing a defect. In passing, resourcing the role of the supervisor is difficult as it depends on the amount of testing set out in the works information, the competence of the contractor and the employer’s appetite to pay for appropriately qualified staff to look for and notify defects. The contract requires each defect to be notified separately. The first mention of a ‘list’ of defects in the contract is as the supervisor’s defects certificate which is issued on or soon after the defects date, typically 12 months after completion. There is no contractual obligation for the supervisor

or the contractor to maintain a list of defects. However, it is completely logical for the supervisor to do so and for the supervisor and contractor to operate a shared list. In fact, it is logical for each notification of a defect to be accompanied by a latest revision to the list of defects. There is also no clause in the contract for the contractor to notify the supervisor that it considers that a notified defect has been corrected. It is suggested that the supervisor and contractor, working in that spirit of mutual trust and co-operation (clause 10.1), create such a process which will include ‘marking’ the dates of the correction of particular defects on the ongoing (but not (yet) contractually required) list of defects.

#### **5.4.2 When does the project manager need to know about defects?**

As noted above, the supervisor is very much in charge of defects. However, the project manager needs to know about them at several times to do their job.

##### **5.4.2.1 PAYMENT CERTIFICATES (OPTIONS A AND B)**

If the contract is under main option A (priced contract with activity schedule), the definition of price for work done to date (option A clause 11.2(27)) includes ‘A completed activity is one which is without Defects which would either delay or be covered by immediately following work’. Under Option B (priced contract with bill of quantities), clause 11.2(28) has ‘Completed work is work without Defects which would either delay or be covered by immediately following work’.

The project manager may look for help from the supervisor to advise whether any activities or bill items might be so affected and so for which payment should not yet be made. That list of defects will be useful.

##### **5.4.2.2 COMPLETION**

It is the project manager’s action to certify completion (clause 30.2). The project manager will look to the definition of completion (clause 11.2(2)) which is as follows.

‘Completion is when the *Contractor* has

- done all the work which the Works Information states he is to do by the Completion Date and
- corrected notified Defects which would have prevented the *Employer* from using the *works* and *Others* from doing their work.’

The ECC only has one word for a defect of any kind. However, they can be clearly separated between those which will hold up completion and those that will not.

At this point the project manager may well want the assistance of the supervisor, who is typically closer to the day-to-day work on site. Has all the required work been done? And are there defects which have been notified but not corrected? This is where the project manager will logically look to the supervisor for the latest list of defects, which,

remember, is not yet required by the contract. Of those defects that have not been corrected it will be up to the project manager to decide if any will prevent the employer from using the works and others from doing their work. It is suggested that the day before possible completion is not the best time for the contractor to find out that the project manager considers certain defects to be in that category. It is suggested that the ongoing defects list could very usefully include a column indicating the supervisor’s thoughts on whether the project manager will withhold completion if each defect on the list is not corrected. As ever in the ECC, it would be very useful for the project manager and supervisor to talk to each other on these matters!

##### **5.4.2.3 PAYMENT CERTIFICATES AFTER COMPLETION**

Clause 43.2 states, ‘The *Contractor* corrects a notified Defect before the end of the *defect correction period*. The *defect correction period* begins at Completion for Defects notified before Completion and when the Defect is notified for other Defects’. And then under clause 45 the project manager assesses the cost of defects that have not been corrected when they are required to have been corrected... and the contractor pays. This is not relevant for payment certificates prior to completion as the contractor does not have to correct these until the end of a defects correction period after the date of completion. However, after completion the project manager clearly needs to know about any defects that have not been corrected within their defects correction period to be able to carry out the assessment and deduct monies from the ‘amount due’ (clause 50.2). The amount of the deduction for non-correction of a defect after take over (clauses 45.1 and 45.2) depends on whether the project manager has arranged for access (clause 43.4). Whether access has been arranged might therefore be another useful column in that list of defects.

##### **5.4.2.4 PAYMENT CERTIFICATE AFTER THE DEFECTS CERTIFICATE**

It is the project manager’s role to certify a payment ‘at the end of each *assessment interval* until four weeks after the *Supervisor* issues the Defects Certificate’ (clause 50.1). The defects certificate (clause 11.2(6)) is simply a list of uncorrected defects or a statement that there are none. (As noted above, this is the first and only occurrence of a list of defects under the contract.) The supervisor is required to issue the defects certificate to the project manager and the contractor (clause 43.3). The project manager will then use the defects certificate to see for which defects an adjustment to the amount due for uncorrected defects (clause 45) should be made.

#### **5.5 What does the supervisor need from the project manager?**

Under the contract there is no obligation for the project manager to inform the supervisor about their communications with the contractor. However, for many important actions of the project manager, not informing the supervisor would be perverse and in some cases make it difficult – or impossible – for the supervisor to do their job.

##### **5.5.1 Early warnings**

The notification of early warnings is solely between the project manager and the contractor. It is probably correct that it is only the

project manager on the employer's side that notifies early warning, but a good project manager will encourage both employer and supervisor to tell the project manager of issues that require or would benefit from an early warning. Clause 16.2 allows project manager or contractor to 'instruct other people to attend if the other agrees.' It is suggested that the project manager should at least send copies of the updated risk register (clause 16.4) to the supervisor and on most projects the supervisor, close to the action on site, should be a regular invitee to the risk reduction meetings.

**5.5.2 Changes to works information (scope under ECC4)**  
It is the supervisor's key role to ensure compliance with the works information. Only the project manager can change the works information (clause 14.3), but there is no contractual obligation to inform the supervisor of these. That is a little odd! The project manager will clearly need to keep the supervisor informed of any changes to the works information. For most contracts this will include the supervisor having on site a set of the latest drawings – the supervisor needs those and any changes to any parts of the works information. Good practice is to keep a 'live' version of the works information showing clause 14.3 changes to the works information in 'track changes'.

The changes to the works information will also pick up those changes to the works information because of the project manager (not the supervisor) accepting defects (clause 44.2).

### 5.5.3 Accepted designs

One of the limbs of the definition of a defect (clause 11.2(5)) is 'a part of the *works* designed by the *Contractor* which is not in accordance with the applicable law or the *Contractor's* design which the *Project Manager* has accepted'. It is the supervisor's role to notify defects and so the supervisor needs to be aware of the gradually developing set of contractor's designs accepted by the project manager (clause 21.2).

### 5.5.4 Programme

Again, the contract's clauses relating to programme are entirely between the project manager and the contractor. However, the supervisor needs to have the latest accepted programme for the following reasons.

- To see 'the order and timing of the operations which the *Contractor* plans to do in order to Provide the *Works*' (clause 31.2). This should include testing, some of which may be required to be witnessed by the supervisor and some may be required to be carried out by the supervisor.
- To see 'how the *Contractor* plans to deal with any delays and to correct notified Defects' (clause 32.1).

## 5.6 How else can the supervisor assist the project manager?

Typically, the supervisor has more time and resource on the site than the project manager. The project manager is usually well advised to use that on-site presence to help do their role. The supervisor is well

advised to clarify what, if any, support is wanted from the project manager – and that the employer is ready to pay for that support.

### 5.6.1 Records

The supervisor is generally well placed to maintain basic site records including

- site diaries
- records of contractor's resources
- photographs
- contractor's progress and
- weather records.

### 5.6.2 Disallowed cost (for target contracts)

If the contract is a target contract (option C or D) there is a provision for disallowed cost (clause 11.2(25)). Ultimately, deciding if a cost is to be disallowed is a role of the project manager. However, the project manager typically seeks help from the supervisor, who is likely to be on site more than the project manager. The supervisor may, for example, be asked to help (with records) to show elements of cost which

- 'was incurred only because the *Contractor* did not
  - follow an acceptance or procurement procedure stated in the Works Information...

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' (NEC3, 2013a; clause 11.2(25)).

## 5.7 Changes in ECC4 – the quality management system

In NEC4, the drafters have sought to minimise unnecessary differences between the contracts. ECC4 (NEC4, 2017) now, like the NEC3 *Professional Services Contract* (NEC3, 2013b), includes requirements for

- a quality management system to meet requirements set out in the scope (ECC4's term for ECC3's works information)
- a quality policy statement to be submitted for the acceptance of the project manager
- a quality plan be submitted for the acceptance of the project manager and any changes to be submitted for the acceptance of the project manager.

In addition, the project manager may instruct the contractor to correct failures to comply with its quality plan.

Given the supervisor's main role is relating to quality and they will logically be interfacing on a day-to-day basis with the contractor's quality manager, it will be appropriate for the supervisor to be at least aware of the contractor's quality plan. This is another case where clearly the project manager will at least 'copy in' the supervisor on these quality-related actions, even though it is not expressly required in the contract. In reality, the project manager may ask for the supervisor's help in some or all of their new quality-related actions.

### 5.8 Conclusion

In summary, a strict interpretation of the ECC contract has the project manager and supervisor sharing only a few certificates. In reality, although their roles are very clear and very separate

- the supervisor needs the project manager for some aspects of its role

- the project manager needs the supervisor for some aspects of its role
- there is clearly huge benefit in the project manager and supervisor (both working for the same employer) 'acting in a spirit of trust and co-operation' (clause 10.1) and keeping the other informed (at least) about their communications
- the project manager can also benefit from support on certain issues from the supervisor and the supervisor is well advised to make sure these are carefully defined for each contract
- the supervisor should actively maintain a list of defects, which will be needed throughout the contract and not only when it appears in the contract when the supervisor issues the defects certificate as its very last action
- an 'in the cloud' contract management system can help with all this – but the project manager and supervisor will still benefit from acting in that spirit of mutual trust and collaboration: talking and listening to each other!

## 6. Diary

Type	Training	Date	Location
NEC	NEC4: Introduction to the Professional Service Contract (PSC)	1 November 2017	London
ICE Training	Design Of Concrete Structures To Eurocode 2 – The Essentials	1 November 2017	Birmingham
NEC	NEC3: Preparing & Managing Engineering & Construction Contracts	1 November 2017	Birmingham
ICE Training	Fundamentals of CDM2015	1 November 2017	Birmingham
ICE Training	Project Cost Management – Estimating, Budgeting and Value	1 November 2017	London
ICE Training	ICE Professional Review Preparation Course	1 November 2017	London
ICE Training	Bills Of Quantities For Highway Works	2 November 2017	London
ICE Training	Temporary Works Co-ordinator Training Course	6 November 2017	London
NEC	NEC3: ECC Project Manager Accreditation	6 November 2017	London
NEC	NEC4: Introduction to the Engineering and Construction Contract (ECC)	8 November 2017	London
ICE Training	Design Of Concrete Structures To Eurocode 2 – The Workshop	8 November 2017	London
ICE Training	Sustainable Development - Design, Construction And Maintenance	8 November 2017	London
NEC	NEC3: Practical Application of the Engineering & Construction Contract	9 November 2017	London
NEC	NEC3: ECC Project Manager Accreditation	13 November 2017	London
ICE Training	The Technical Report Route to Incorporated or Chartered Engineer	14 November 2017	London
ICE Training	Design of Steel Structures to Eurocode 3 – The Essentials	14 November 2017	London
ICE Training	ICE BIM for Infrastructure	15 November 2017	London
ICE Training	CDM2015: The Principal Designer and Designer – Demonstrating Capability	15 November 2017	London
ICE Training	ICE Professional Review Preparation Course	15 November 2017	Cardiff
ICE Training	ICE Professional Review Preparation Course	15 November 2017	Exeter
ICE Training	Practical Highway Maintenance	16 November 2017	London
ICE Training	Design of Structural Masonry To Eurocode 6	16 November 2017	London
NEC	NEC3: Introduction to the Engineering and Construction Contract (ECC)	16 November 2017	London
NEC	NEC3: ECC Project Manager Accreditation Hong Kong	21 November 2017	Kowloon
NEC	NEC4: Introduction to the Term Service Contract (TSC)	21 November 2017	London
NEC	NEC3: Introduction to the Professional Services Contract	21 November 2017	Birmingham
NEC	NEC4: Introduction to the Design Build and Operate Contract (DBO)	23 November 2017	London
NEC	NEC3: ECC Project Manager Accreditation Hong Kong	27 November 2017	Kowloon
ICE Training	Temporary Works Supervisor Training Course	28 November 2017	London
ICE Training	Highway Design and Detailing using the DMRB	28 November 2017	Birmingham

Training listed above are based on classroom format; in-house training is also available

**How to book training?**

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Type	Title	Date	Location
Webinar	NEC4 Service Contracts: how have they changed?	15 November 2017, 13:00 GMT	—
Event	NEC Users' Group Workshops	30 October 2017	Birmingham
Event	NEC4: key changes to the works and services contracts	1 November 2017	Manchester
Event	NEC Users' Group Workshops	17 January 2018	London
Event	NEC4: key changes to the works and services contracts	23 February 2018	Manchester
	NEC Users' Group Workshops		
	NEC4: key changes to the works and services contracts		

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- Transocean Drilling UK Ltd v. Providence Resources PLC [2016] EWCA Civ 372.

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