

nec users' group NEWSLETTER



Royal Navy aircraft carrier HMS *Queen Elizabeth* paid its first visit to the NEC-procured Northern Ammunition Jetty in Scotland last year. The £67 million, 356 m long facility was procured by Defence Infrastructure Organisation using an NEC4 Engineering and Construction Contract Option C (target contract with activity schedule). Completed early and close to budget by contractor Volker Stevin, it won Upgrade and Renewal Project of the Year in the 2021 British Construction Industry Awards (see page 2).

NEWS

New NEC secondary option will incentivise net zero emissions

IAN HEAPHY NEC4 CONTRACT BOARD

NEC is about to publish a consultative version of a new secondary option that will enable construction clients to engage their suppliers in the global drive towards net-zero greenhouse gas emissions and sustainability.

Achieving net-zero emissions of carbon dioxide and other climate-warming gases will dramatically increase the sustainability of creating and operating built assets. This is a key part of the UK government's strategy for construction (HM Government, 2020) and, as highlighted by the recent Cop26 climate change conference, is of increasing importance for public and private-sector organisations worldwide.

Achieving net-zero emissions and sustainable outcomes is principally a technical issue that can be addressed in the scope. However, there is now a growing view that standard contract conditions can be used further to support a reduction in the climate change impact of built assets.

NEC has therefore developed a new secondary option specifically to address the issue. It is due to be published in early 2022 and will initially

be in a consultative form, enabling users to comment on it and more advanced users to try it.

Incentivising the supply chain

The secondary option has been developed with support from industry and the Institution of Civil Engineers. It aims to incentivise the NEC supply chain to meet the client's emissions and sustainability targets, and to link these into core processes of the contracts, such as early warnings, the programme and compensation events.

In addition, contractors will be encouraged to propose changes to the scope that will reduce the climate-change impact of both the construction and operation of the client's asset. The secondary option is intended to be flexible in its application, allowing for adoption by clients and suppliers with differing approaches to reaching net-zero emissions and sustainability, but encouraging them all to make their achievement a key part of their contracts.

As with all NEC clauses, the new secondary option will be supported by detailed guidance notes, training and webinars. Please keep an eye on the NEC website for further details. ○

Reference

HM Government (2020) *The Construction Playbook, Government Guidance on sourcing and contracting public works*, Cabinet Office, <https://www.gov.uk/government/publications/the-construction-playbook>

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EDITORIAL

Scottish appeal court reinforces NEC 'mutual trust and co-operation'



RUDI KLEIN NEC USERS' GROUP PRESIDENT

The clause 10 duty on NEC users to act in a spirit of, 'mutual trust and co-operation,' has often been criticised as adding very little (if anything) to the express provisions. As reported by Shy Jackson on page 9, this was the view of the trial judge in the 2020 Scottish case of *Van Oord UK Ltd v. Dragados UK*, but has thankfully been overturned on appeal.

Subcontract cut in half

The case was about a £26 million dredging subcontract on the Aberdeen Harbour expansion project. It was let by main contractor Dragados to subcontractor Van Oord under an NEC3 Engineering and Construction Subcontract (ECS). But, after work started, the main contractor decided to transfer almost half the value of the subcontract to two other firms. It then reduced the sum payable to the original subcontractor for the remaining works under the ECS compensation event provisions.

While the trial judge held this to be a breach of the subcontract, he said the main contractor was entitled to reduce the subcontract price in accordance with ECS clause 63.10. Under this clause, prices can be reduced if the effect of the compensation event is to reduce the defined

cost and the event is a change to the works information or a correction to an assumption made by the main contractor when assessing an earlier compensation event.

Successful appeal

Fortunately the subcontractor successfully appealed the decision in October 2021. The Inner Court of Session (Scotland's appeal court) held that clause 63.10 did not apply where the instruction was issued in breach of the contract, relying upon the wording of clause 63.2 that prices are not reduced, 'except as stated in this Subcontract'.

The appeal court said the outcome was reinforced by the clause 10 duty of, 'mutual trust and co-operation,' which was, 'not merely an avowal of aspiration... it reflects and reinforces the general principle of good faith in contract'. The decision aligns with the three following principles:

- a party cannot take advantage of its own breach of contract
- a contracting party is not obliged to accept an instruction in breach of contract

- clear language is required to place a contracting party at the mercy of the other.

The decision is very welcome. Hopefully it will encourage courts in England and elsewhere to give far greater consideration to the impact of NEC clause 10. ○

'The decision is very welcome. Hopefully it will encourage courts in England and elsewhere to give far greater consideration to the impact of NEC clause 10.'

NEWS

NEC-procured projects again dominate the British Construction Industry Awards

SIMON FULLALOVE EDITOR

NEC-procured projects again featured strongly at the British Construction Industry Awards last year.

The event at London's Grosvenor House Hotel in October 2021 saw NEC projects winning seven of the 10 project-related awards, including the overall award, with JCT projects picking up the remaining three. Of the seven highly commended entries, four were NEC, two were JCT and one was bespoke.

The University of the West of England's £27 million Engineering Building topped the list by winning overall Project of the Year as well as Social Infrastructure Project of the Year. It was procured using an NEC4 Engineering and Construction Contract (ECC) Option A (priced contract with activity schedule (see case study on page 4).

Design principles award

Cumbria County Council's £7 million NEC3 ECC Option C (target contract with activity schedule) Pooley Bridge contract gained the National Infrastructure Commission Design Principles Award (see case study on page 5), while Rochester Bridge Trust's £12 million

NEC3 ECC Option B (priced contract with bill of quantities) refurbishment project secured Transport Project of the Year (see case study in Issue 115).

Utility Project of the Year was awarded to United Utilities' £40 million NEC3 ECC Options A and C Anchorsholme outfall pumping station in Lancashire (see case study on NEC website), and Upgrade and Renewal Project of the Year went to Defence Infrastructure Organisation's £67 million NEC4 ECC Option C Northern Ammunition Jetty in Scotland (see page 1).

Finally the Environment Agency's £120 million NEC3 ECC Option C Boston Barrier scheme in Lincolnshire, due for completion later in 2022, won Climate Resilience Project of the Year.

Highly commended projects

Highly commended NEC projects were Hythe Range sea defences in Kent, Dragon's Heart temporary hospital in Cardiff, Burton on Trent flood risk management scheme in Staffordshire and Hallbank tunnel replacement pipeline in Cumbria (see case studies on NEC website). ○



The University of the West of England's NEC4-procured Engineering Building won overall Project of the Year



The Environment Agency's ongoing ECC Boston Barrier scheme won Climate Resilience Project of the Year

NEWS

Over 40 delegates attend workshop on new security-of-payment rules in HK



IVAN CHEUNG NEC ASIA PACIFIC USERS' GROUP SECRETARY

More than 40 delegates attended the NEC Users' Group workshop at Bryan Cave Leighton Paisner's (BCLP) Hong Kong office in November 2021. The half-day workshop focused on the proposed new security-of-payment legislation in Hong Kong.

BCLP counsel Patrick Daley explained the application and mechanisms of the impending legislation and discussed its compatibility with NEC contracts. Arup consultant SY Chan then looked at practical approaches for implementing the legislation in line with NEC ethos of 'mutual trust and co-operation'. The event concluded with a discussion led by NEC Users' Group secretary Robert Gerrard.

New security-of-payment provisions

The proposed legislation is now being trialled through Technical Circular (Works) No.6/2021, which introduced mandatory security-of-payment provisions for the majority of Hong Kong's public works tenders from December 2021, with the remainder to follow in April 2022.

The provisions, which are intended as a trial before the legislation gets formally enacted, ban 'pay when paid' clauses, require payment to be made within 60 days and stipulate rapid adjudications. ○

For more information please email usersgroup@neccontract.com



Arup consultant SY Chan (left) and BCLP counsel Patrick Daley presenting the November workshop

NEWS

NEC contract benefits discussed at length in high-profile Emap podcast and webinar

SIMON FULLALOVE EDITOR

Two of the UK's leading industry news providers, *Construction News* (CN) and *New Civil Engineer* (NCE), recently featured NEC contracts in a webinar and podcast respectively. Both titles are published by Emap.

Sponsored by Oracle Construction and Engineering, the CN webinar on 14 October 2021 was entitled *How can construction contracts be*

put to work to work to encourage innovation. It focused primarily on NEC4 contracts and how they drive innovation.

Chaired by CN editor Lem Bingley, the panel consisted of Arup legal group associate director Nora Fung, UK Parliament head of procurement Kuda Kadungure, Oracle director of industry strategy Werner Maritz, RPCuk business development executive Chris Woodbridge and GHM Planning director Glenn Hide. The 1 hour webinar can be seen at www.youtube.com/watch?v=CnB27Kkz-3Q.

NCE podcast

NCE's podcast on 27 October 2021 was part of its The Engineers Collective series sponsored

◀ The Engineers Collective podcast by *New Civil Engineer* and Bentley focused on NEC contract

by Bentley Systems. Entitled *Contracting to collaborate and drive industry change*, it focused on the impact NEC contracts have had on the global construction industry over the past 30 years.

Hosted by NCE editor Claire Smith, the guests were John Welch, chair of the NEC Users' Group and deputy director for construction at Crown Commercial Service, and Andrew McNaughton, infrastructure lead at Aczel and formerly with Systra and Balfour Beatty.

Smith commented afterwards, 'We so often only talk about forms of contract when projects end up in court so it was nice to step away from that and talk about how NEC has helped move the industry away from its adversarial past.' The 1 hour podcast can be listened to at <https://www.podbean.com/ew/pb-6ge3c-1113fb4>. ○



NEWS

NEC publishes new guidance on how to include the UK living wage in contracts



MARCUS GREENSLADE NEC MARKETING

NEC, in partnership with the Institute of Workplace and Facilities Management and the Living Wage Foundation, released a new practice note in November 2021 on how NEC clients in the UK can contractually require their suppliers to pay workers no less than the UK living wage.

While written for the NEC4 Facilities

Management Contract (FMC), the guidance is equally relevant to all other NEC forms of contract, particularly those which include provision of 'soft services' such as cleaning and security.

The living wage is set each November by the UK Living Wage Foundation as the hourly rate full-time workers aged 18 or over need

for a minimum decent standard of living. The current rates are £9.90 for the UK and £11.05 for London. These rates are higher than the statutory minimum wages of £8.36 and £8.91 for under- and over-23-year-olds respectively.

The practice note is freely available for download from the NEC website at www.neccontract.com. ○

CASE STUDY: *Building*

British university uses NEC4 to deliver its new-award-winning engineering building

SIMON FULLALOVE EDITOR



The £27 million NEC4-procured Engineering Building in Bristol features Corten steel cladding

NEC has been used to deliver a world-class teaching and research building at a major UK university. The University of the West of England let construction of its new state-of-the-art Engineering Building in Bristol to Bam Construction under a £27 million NEC4 Engineering and Construction Contract (ECC) Option A (priced contract with activity schedule) in September 2018.

The four floors of the 8500 m² steel-framed, Corten-clad building are arranged around a full-height atrium finished with a glulam timber roof structure. With a capacity for 1600 students and 100 staff, the building provides flexible learning and research spaces, workshops and laboratories plus specialist engineering facilities such as engine test cells, a rolling road and simulation areas.

Sustainability features include rainwater collection, solar panels, district heating, natural ventilation and passive cooling, all of which helped to achieve a Breeam excellent



The 8500 m² building's full-height atrium is finished with a glulam timber roof structure

rating. Designed as a 'smart building', room environments are individually controlled through a building management system, which monitors carbon dioxide levels and opens windows and louvre vents automatically.

NEC project manager Capita, architect AHR, consulting engineer Hydrock and cost consultant Mace were each engaged under an NEC4 Professional Service Contract (PSC). Despite 3 months delay due to the Covid-19 pandemic, the project was completed on budget and in time for the start of the new academic year in early October 2020. It won the Project of the Year and Social Infrastructure Project of the Year in the 2021 British Construction Industry Awards.

Fixed price

The University of West of England is an experienced NEC user, having procured several other campus projects through the contract suite. University project manager Stephen Denning says, 'The key reasons for choosing NEC4 ECC Option A for this scheme was the reassurance of having fixed price for a relatively complex, high-value building. Option A allowed the University to know the costs from the start, subject to any client changes.'

He says it was also critical for the building to be completed in time for the start of the 2020–21 academic year. 'The NEC requirement for a regularly updated programme enabled the project manager to closely monitor the programme, activity schedule and progress, which also helped with cost management.'

Denning says the NEC obligation to, 'act in a spirit of mutual trust and co-operation' encouraged full collaboration across the project team. 'From the outset, the client, designers and contractor worked in full co-operation,

developing the design through a collaborative two-stage tender process. The key to this success was the trust and free flow of ideas, enabling full realisation of the University's vision in the finished project.'

He says all design decisions were taken as a team. 'The contractor involved key supply chain partners at the earliest opportunity to advise on buildability, interfaces and the effect on programme. A project room was set up on campus as a drop-in space for consultation, where the combined project team worked, allowing faculty staff members to drop in as their timetable allowed to consult and appraise design development and on-site progress.'

Denning adds that NEC processes proved to be a highly effective way to manage and agree changes prior to handover. 'Frequent NEC early warning meetings enabled us to work collaboratively through all issues that arose during construction so they could be closed out before completion. The NEC compensation event process also focused the team on managing and agreeing change within the contractual timescales.'

Covid mitigation

He says NEC-inspired collaboration proved critical when constructing during the Covid-19 pandemic and first national lockdown in 2020. 'The contractor engaged fully with the University, the supply chain and stakeholders to develop mitigation measures, ensuring the building would still open for the start of the 2020 academic year as planned.'

'Welfare provision was doubled to allow for strict social distancing, communications with all supply chain principals were carried out by Teams or Zoom, and additional bio-security measures

were introduced along with a one-way system to encourage distancing.'

Denning says collaboration also extended to the local community, helping to ensure maximum social value for the project. 'The contractor conducted 47 site visits for over 600 local students and groups, provided nearly 100 apprenticeship weeks, created permanent jobs for six long-term unemployed people and filled an additional ten positions. The team managed 90 weeks of work experience training and saw 20 NVQ completions for local supply chain partners. Finally, over half of the project spend went to supply chain partners based within a 50 km radius of site.'

BENEFITS OF USING NEC

- NEC4 ECC Option A provided the client with the reassurance of a fixed price for a relatively complex, high-value project.
- NEC requirement for a regularly updated programme helped to ensure the critical opening date for students was achieved.
- NEC obligation to, 'act in a spirit of mutual trust and co-operation' encouraged full collaboration across the project team.
- NEC early warning meetings enabled the project team to work collaboratively through all issues that arose during construction so they could be closed out before completion.
- NEC compensation event process focused the team on managing and agreeing change within contractual timescales.

CASE STUDY: *Transport*



Local authority chooses NEC to deliver the UK's first stainless steel road bridge

SIMON FULLALOVE EDITOR



The award-winning £6.7 million river crossing was procured using NEC3 ECC Options A and C

Cumbria County Council has used NEC contracts to procure the UK's first stainless steel road bridge. The new award-winning 40 m crossing over the River Eamont at the village of Pooley Bridge is a permanent replacement for an eighteenth-century stone bridge that was swept away by floodwater in 2015.

The £7.6 million project is one of over 1200 in the council's £120 million, NEC-procured infrastructure recovery programme following extensive flooding caused by storm Desmond in December 2015. The storm destroyed the original Pooley Bridge, a grade-2-listed, three-span masonry arch that had stood at the mouth of Ullswater lake since 1764 and given the local village its name. The crossing had become a well-known gateway to the Lake District National Park, a World Heritage Site.

A temporary modular steel road bridge was opened three months after the storm to reconnect the two halves of the village and carry B5320 traffic, but this was downgraded to a temporary footbridge in September 2019 to prepare for the permanent replacement road bridge. The new 300 t stainless-steel and

concrete composite structure was lifted onto new reinforced concrete abutments in May 2020 and was opened to traffic in October 2020.

The project won the National Infrastructure Commission's Design Principles Award in the 2021 British Construction Industry Awards.

Two-stage design and build

Like many of the projects in the recovery programme, Pooley Bridge was procured as a two-stage design-and-build scheme. The first stage for detailed design was let to Eric Wright Civil Engineering in May 2018 using an NEC3 Engineering and Construction Contract (ECC) Option C (target contract with activity schedule) and was completed in February 2019. The second stage, for fabrication and construction, was let to the same contractor in May 2019 under an NEC3 ECC Option A (priced contract with activity schedule) and was on target to be open to traffic in July 2020 until the pandemic hit.

Caroline Leigh, senior manager of the council's capital programme, says, 'Cumbria's entire infrastructure recovery programme has been delivered using various NEC3 ECC main options.

The contract suite was chosen primarily because of its approach to collaboration, risk mitigation and commercial flexibility. NEC contracts are also proactive, add value and are written in plain English.'

She says the main option combination on Pooley Bridge was designed to provide early contractor involvement to a unique design and build methodology, as well as create commercial tension between the parties to deliver a value-for-money outcome.

Collaborative working

Mott MacDonald's associate senior project manager Craig Mitchell says, 'During the detailed design stage we worked in close collaboration with the community and key stakeholders to ensure the bridge met the aesthetic requirements of its surroundings while being engineered to avoid the maintenance and flood risk issues associated with its predecessor. The design also had to take account of construction sequencing to ensure minimal impact on the environmentally sensitive location.'

He says the result was a decision to build

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the structure off-line and lift it into place once all on-site fabrication was complete. 'To achieve this in the restricted room available for the construction, it was necessary to look at lightweight high-strength materials that would optimise construction sequencing, while providing the structural properties required to fulfil the needs for the permanent structure.'

The solution was a single stainless-steel and reinforced concrete composite arch with open spandrels and a reinforced concrete upper deck.'

According to Mitchell, the NEC contracts provided both a project ethos and framework under which the project could be delivered in a collaborative manner. 'Through effective and timely issue of early warning notices

together with an inclusive approach to design and commercial meetings, issues were quickly identified and resolved. The processes in the NEC contract provided clear lines of communication within defined timeframes that were easily understood by all parties, allowing quick resolution to any issues and preventing delays. ○

BENEFITS OF USING NEC

- NEC obligation to work in a 'spirit of mutual trust and co-operation' provided an ethos and framework to deliver the innovative design and construction in a collaborative manner.
- NEC early warning and risk-mitigation processes ensured all issues were quickly identified and resolved, with clear lines of communication and defined timeframes easily understood by all parties.
- NEC main options provided commercial flexibility, enabling early contractor involvement for the detailed design on a target-cost basis followed by a fixed-price for construction.



The 40 m long, 300 t stainless-steel and concrete composite structure was installed in a single lift

CASE STUDY: Transport



NEC4 PSC picked to procure major railway consultancy project in Hong Kong

SIMON FULLALOVE EDITOR



NEC4 PSC was used to review monitoring and control strategies for new railway projects in Hong Kong

The Railway Development Office (RDO) of Hong Kong government's Highways Department (HyD) has adopted the NEC4 Professional Service Contract (PSC) for a major consultancy study. It is the first use of NEC4 PSC for a railway-related consultancy in Hong Kong.

In February 2020, Ernst & Young Transactions Limited was engaged to undertake a 12-month review of monitoring and control strategies for new railway projects in Hong Kong to improve public safety, quality, cost and programme control. In addition to a desk study, the consultant interviewed relevant stakeholders to enhance its understanding of their current practices and latest developments to prepare for the challenges of delivering future railway projects.

The government's 2014 railway development strategy recommended that seven new railway projects be implemented progressively subject to

further technical and financial studies, updated demand assessment, availability of resources and implementation of new development areas and housing developments. The new projects included Tung Chung line extension, Tuen Mun south extension, Northern Link (including Kwu Tung station), Hung Shui Kiu station, North Island line, East Kowloon line and South Island line (west).

Piloting NEC4 PSC

Piloting NEC4 PSC in the HK\$8 million (£0.8 million) RDO consultancy is the latest of many public works contracts and consultancies initiated by government works departments since the introduction of NEC4 in 2017, as part of a transition from NEC3 to NEC4. The government's Development Bureau has promoted the NEC contract suite as its procurement route for major public works projects since 2016.

RDO's project team considered the collaborative culture and proactive communication mechanisms of NEC4 PSC made it well suited to facilitate delivery of this complex consultancy study. The project team put a great effort into procuring the consultancy using NEC4 PSC, including mapping the differences between NEC4 PSC and traditional consultancy form. They hope the success of the trial will facilitate the progressive transition from NEC3 to NEC4 in public works consultancies in Hong Kong.

RDO was highly commended for the 2020 NEC Contract Innovation Award for its innovative drafting of the NEC4 PSC. The judges said, 'The client clearly understands the value of collaboration, bringing this culture into a railway environment and assisting in the transition between NEC3 and NEC4. It is interesting to see a holistic approach, including smart procurement and monitoring'.

RDO's project team said the NEC4 PSC contract data part one was carefully drafted to specify the relevant qualification and experience requirements of key people, specialists and subcontractors. The procurement process included checking the reasonableness of professional manpower resources proposed by the consultant at tender stage, and the adequacy of these resources was reviewed every 3 months after contract award.

The project team said the activity schedule template was drafted to allow pricing flexibility to match the likely cashflow of the consultant. Furthermore, the scope was written to promote collaboration and partnership among the project team, the consultant and relevant stakeholders towards a common goal of excellent performance throughout the contract.

Partnering platforms

A multi-purpose partnering workshop was included in the consultancy to appreciate and align objectives, develop common goals, evaluate risks and establish collaborative working relationships among the different parties.

According to RDO's project team, the client, service manager and consultant took the study forward in a highly collaborative manner, with

intensive communications through multiple channels, such as interviews, workshops and co-location arrangements. In particular there was enhanced transparency in sharing information and initial thoughts between the project team and the consultant to stimulate generation of good ideas and solutions to achieve better project outcomes.

RDO's project team highlighted the importance of integrated discussion forums, comprising a project steering group and working group as well as online communications, which

were used to resolve challenges in a timely manner. With active participation by various parties and the clause 10.2 obligation to act in a 'spirit of mutual trust and co-operation', a collaborative culture was firmly reinforced in the various stages of the consultancy.

The team added that the NEC early warning mechanism had encouraged timely risk identification and problem solving in a proactive manner. This had helped to ensure that the consultancy remained on programme and within budget. ○

BENEFITS OF USING NEC

- NEC4 PSC's collaborative culture and proactive communication mechanisms made it well suited for delivery of a complex consultancy study.
- Flexibility of NEC4 PSC scope and contract data facilitated precise specification of the professional resources required, and the activity schedule template allowed pricing flexibility to match the consultant's cashflow.
- NEC4 PSC scope and clause 10.2 obligation to work in a 'spirit of mutual trust and co-operation' ensured collaborative working between the parties, helping to achieve optimum project outcomes.
- NEC4 PSC's early warning mechanism encouraged timely risk identification and problem solving in a proactive manner, helping to keep the consultancy on programme and within budget.

PRACTICE

Understanding the use and benefit of performance bonds in NEC contracts



DAVID HUNTER DANIEL CONTRACT MANAGEMENT SERVICES

KEY POINTS

- A client can ask its contractor to provide a performance bond as additional security against the contractor's failure to perform.
- A performance bond can be included in an NEC contract via option X13 (or X4 for NEC4 ALC and NEC4 FMC).
- Clients need to decide on the form of the bond and include this in the scope, but they also need to balance the cost of providing the bond with the potentially limited security provided.

Clients rely on the performance of their contractors for successful delivery of construction projects. While good procurement practice and effective contract management can reduce the risk of non-performance, the risk may still persist. As such, clients on higher value contracts may choose to offset this risk by means of a performance bond.

A performance bond is effectively a way of insuring a contractor's performance. The bond provider or 'guarantor' is normally a bank or insurer. It undertakes to make payment to the client or 'beneficiary' in the event the contractor or 'principal' breaches its contract. The obligation on a contractor to obtain a bond arises only when the requirement is stated in the underlying contract between the client and contractor.

Types of performance bond

Broadly, there are two types of performance bond: conditional (or guarantee) bonds, and

on-demand bonds. Under a conditional bond, the guarantor becomes liable to the client only when the client has demonstrated the contractor has failed to comply with its obligations under the contract and that the client has, as a consequence, incurred loss. This means the guarantor may rely on the same rights and counter claims available to the contractor that exist under the contract to defend a claim made against the bond. Conditional bonds are the most commonly used in the UK.

On-demand bonds generally do not require the client to provide evidence of the contractor's default or the loss incurred. In practice there will often be some conditions, such as the giving of a notice with details of the amount claimed, that will need to be satisfied before liability arises. Not surprisingly, on-demand bonds are not favoured by either guarantors or contractors. Ultimately the question of whether a bond is classed as conditional or on-demand, or a hybrid of the two, depends on the actual words used in the bond.

Using a performance bond in NEC4

All long-form versions of NEC4 contracts allow for incorporating an obligation on the contractor to give a performance bond. With the exception of the NEC4 Alliance Contract (ALC) and NEC4 Facilities Management Contract (FMC), the obligation is effected by including secondary option X13, which requires the form of the bond to be set out in the scope. If the bond is not included in the scope, the client may find it difficult to enforce the obligation (though the Engineering and Construction Contract (ECC) project manager can give an instruction to the contractor which changes the scope via clause 14.3). The ALC and FMC use option X4: performance guarantee, which includes the option of an ultimate holding guarantee or performance bond (not both) if stated in the contract data.

NEC contracts do not provide a standard form of performance bond and so the decision on what to use is left to the client. The Association of British Insurers provides a model form of guarantee bond for use in the UK construction industry. In addition, the bond amount required must be stated in contract data part one, normally expressed as a proportion (typically 10%) of the contract value. The bond amount should be replicated in the bond itself, but clients should be aware this is the maximum recoverable and not a guarantee that the full amount will be paid.

Neither clause X13 or the contract data include an entry for the expiry date of the bond, so the parties will need to ensure this matter is properly addressed in the bond itself. In the absence of an

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expiry date, liability usually exists until the end of the limitation period for breach of contract, which is commonly governed by the date of completion. Project managers should be aware of this implication when issuing a completion certificate.

The contractor is required to provide the bond to the client within 4 weeks of the contract starting. However, before doing so, the contractor has to obtain the project manager's acceptance of the guarantor. Clause X13 states, 'A reason for not accepting the bank or insurer is that its commercial position is not strong enough to carry the bond.' It is recommended that project managers refer to the client or seek competent advice on such matters.

The contractor's failure to give a bond is a reason for which the client may terminate the contractor's obligation to provide the works (clause 91.2 (R12)). The client's right of termination is subject to a notice of the default first being served by the project manager, and subsequent failure by the contractor to put matters right within 4 weeks of the notice.

Cost of performance bonds

The cost of a performance bond depends on the type of bond, its amount and duration, and the guarantor's assessment of the contractor's standing. They are typically between 1% and 3% of the contract value. If amount of the bond become payable to the client, the guarantor may pursue the contractor for recovery of its loss under any rights of subrogation that exist. Ultimately, the obligation to give a bond increases the contractor's risk profile, which will need to be reflected in its tender price. Clients should consider this when asking for a performance bond.

Under ECC Option B (priced contract with bill of quantities), the performance bond will be a priced item in the bill of quantities. For ECC Option A (priced contract with activity schedule), if the client requires transparency of the cost, it will need to ensure the activity schedule includes a separate priced activity for the bond. The cost incurred by the contractor is not payable as defined cost and treated as

included in the fee (clause 52.1). For ECC cost-reimbursable contracts (Options C, D, E or F), contractors should ensure their fee percentage is sufficient to cover the cost of the bond.

Conclusion and recommendations

Performance bonds can provide clients with a certain amount of additional security for their contractors' performance. NEC contracts allow for the use of performance bonds, but clients will need to decide the form of the bond and then include it in the scope.

The form of bond dictates what level of security is provided and the ease by which a client can make claim against the bond. The cost of providing a performance bond can be expensive, so competent advice should always be sought by clients and their project managers deciding to ask for one. ○

Acknowledgement

The author acknowledges the assistance of Patrick Waterhouse in the writing of this article.

PRACTICE

The mismatch between 'belief' and 'awareness' in clause 61.3



STEVE GOODWIN AND ANDREW WOOLDRIDGE-IRVING GVE COMMERCIAL SOLUTIONS AND JOHN BROOME LEADING EDGE PROJECT CONSULTING

KEY POINTS

- ECC clause 61.3 requires a contractor to notify what it 'believes' to be a compensation event if the event has not been notified by the project manager.
- The clause goes on to state that such notification will be time barred if not made within 8 weeks of a contractor 'becoming aware' the event happened.
- This can lead to contractors being time-barred from compensation, particularly as gaining 'belief' can often take longer than 'becoming aware'.
- It is suggested that redrafting clause 61.3 to make the contractor's notification obligation consistent with the time bar would remove any ambiguity or unfairness.

Under clause 61.3 of the NEC3 and NEC4 Engineering and Construction Contract (ECC), the contractor has to notify the project manager of what the contractor 'believes' to be a compensation event if the project manager has not already notified the event. It goes on to say that if the contractor does not notify a compensation event within 8 weeks of 'becoming aware' the event has happened, there will be no change to the prices or programme – effectively a time bar.

This article discusses the nuances of the wording of clause 61.3, gives practical tips for not falling foul of the time bar and suggests alternative wordings which would remove any ambiguity.

Defining 'belief'

The first half of clause 61.3 states that the contractor is required to notify 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. But, for the purposes of an obligation to notify a compensation event, what must the contractor know and believe, and what form, status or

understanding must this knowledge or belief take? Is it the mere suspicion that an event might be a compensation event, or is it the first encountering of the event on site?

The judgment in *Arab Lawyers Network Company Ltd v. Thomson Reuters (Professional) UK Ltd* [2021] EWHC 1728 (Comm) suggests not on both counts. Judge Peter Eggers said, 'knowledge does not mean... must have an unwavering conviction in the belief in the truth of the basis for the claim, but there must be a sufficient measure of confidence in the belief which is justified by evidence, experience or reasoning. A mere suspicion, even if supported by some indeterminate evidence, is not sufficient to constitute knowledge for this purpose.'

Therefore, before notifying a compensation event under clause 61.3, the contractor's belief needs to be justified by sufficient evidence, experience and reasoning that, on the balance of

probability (the level of proof needed under civil law), an event which has, 'happened or which is expected to happen,' is indeed a compensation event. This is important because the time bar in the second half of clause 61.3 does not use the word 'belief'. The time bar starts 8 weeks (7 weeks for a subcontractor) from the contractor, 'becoming aware that the event has happened'. It is also noteworthy that the notification element of the clause also refers to an 'expected' event, whereas the time-bar element does not.

Unreasonable time bar

While an 8-week time bar from the event awareness date might seem reasonable, there are many situations where this might not be the case. For example, a contractor may have initially been persuaded by a project manager into believing that an event was not a compensation event, and so did not notify it as such. Subsequently, having taken legal or commercial advice, the contractor finds that there was a valid justification for a compensation event after all, but the time-bar period has passed.

Another example is a contractor that finds an unexpected white substance in the ground. It could only believe this is asbestos, which might be a compensation event, after detailed testing and analysis, which could take more than 8 weeks. Indeed, any situation where the contractor might have to seek external professional or legal advice can easily result in the contractor being time barred from notifying a compensation event.

'While an 8-week time bar from the event awareness date might seem reasonable, there are many situations where this might not be the case.'

In effect, clause 61.3 means a contractor must wait before notifying a compensation event until 'awareness' of an event becomes a 'belief' that it is a compensation event, which may well take more than 8 weeks. This raises questions such as can a time bar apply before a contractor believes an event is a compensation event? Can a time-bar period commence on a different date from the requirement to notify? Can a time bar apply before an obligation to notify even exists? It should also be noted that clients and contractors frequently reduce the time bar to 4 weeks or less.

Recommendations for contractors

From a strictly contractual viewpoint, it could be said that contractors (and subcontractors) should notify any 'potential' compensation event within the stated timescale from awareness. The project manager might initially reject it but, as evidence emerges, it can always be re-notified and the project manager should change their decision (a compensation event in itself).

On the other hand, constant notification of possible but unlikely compensation events is going to increase contract administration and will not be great for working relationships with the project manager. However, explaining matters from a contractor's point of view (i.e. fear of losing entitlement) and a dialogue over what actually constitutes belief may help.

A common-sense approach would be to review regularly all previously notified early warnings and, when the time bar is almost up and if still in doubt, notify a compensation event.

Contractors could also quote the judgment in *Obrascon Huarte Lain SA v. Her Majesty's Attorney General for Gibraltar* 2014. Commenting on the FIDIC Yellow Book, judge Robert Akenhead said there was, 'no reason why this clause should be construed strictly against the contractor...it should be construed reasonably broadly, given its serious effect on what could otherwise be good claims'.

Suggested redraft of clause 61.3

While the above recommendations may help to address the symptoms of the mismatch between 'belief' and 'awareness' in clause 61.3, they do not address the cause. We suggest the clause could be simply re-drafted in one of two ways (new text in bold, existing text struck out).

- 61.3 The *Contractor* notifies the *Project Manager* of an event which has happened or which is expected 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 **believing that event is a compensation event becoming aware that the event has happened...**

- 61.3 The *Contractor* notifies the *Project Manager* of an event which has happened or which is expected to happen as a compensation event if
 - the *Contractor* has become aware **that the event has happened** 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 that the event has happened...

In both alternatives, the obligation placed upon the contractor to notify becomes consistent with the time bar: in the first it is belief an event is a compensation event, and in the second it is awareness an event has happened. Of the two, we prefer the first. Furthermore, in return for the time bar being based upon belief (such as after having sought external professional or legal advice), we think it would be understandable and even perhaps reasonable that the time-bar period be reduced from 8 weeks to 4 weeks. ○

LEGAL

Scottish appeal court says NEC is not a charter for contract breaking



SHY JACKSON BRYAN CAVE LEIGHTON PAISNER

KEY POINTS

- A party acting in breach of contract will be regarded as acting against the clause 10 obligation to, 'act in a spirit of mutual trust and co-operation'.
- It is not necessary to obey instructions which are not in accordance with the contract.
- It is not possible to reduce the prices under clause 63.10 for compensation events that are breaches of contract.

In Issue 111 I covered the September 2020 decision by the Scottish Court of Session in *Van Oord UK v. Dragados UK* [2020] CSOH 87, which has now been appealed. The dispute centred on the ability of Aberdeen Harbour expansion main contractor Dragados to omit works to dredging subcontractor Van Oord, and how such omissions should be valued under an amended NEC3 Engineering and Construction Subcontract (ECS) option B (priced contract with bill of quantities).

The trial judge held in 2020 that the main contractor's omission of works and awarding them to other subcontractors was a breach of contract, but the subcontractor still had to comply with the instruction and the rates could be reduced if that was the effect of the omission. The judge also held that even if there was a breach of the clause 10 obligation to act, 'in a spirit of mutual trust and co-operation,' it would still result in the same reduction to rates.

The trial decision was appealed in October 2021 in *Van Oord UK v. Dragados UK* [2021]

CSIH 50. The Scottish Inner House confirmed that the instruction was a breach of contract but reversed the other findings. The appeal court highlighted the importance of clause 10 and found rates cannot be reduced if a compensation event is based on a breach of contract.

Clause 10.1

The appeal court started by rejecting the trial judge's view that clause 10 did not add much. It observed that the obligation to act, 'in a spirit of mutual trust and co-operation,' is not merely an avowal of aspiration but also reflects and reinforces the general principle of good faith in a contract. The court identified three existing authorities for this:

- a contracting party will not in normal circumstances be entitled to take advantage of its own breach as against the other party
- a subcontractor is not obliged to obey an instruction issued in breach of contract

- clear language is required to place one contracting party completely at the mercy of the other.

It was recognised that ECS clause 68.10 allows the prices to be reduced. But the appeal court considered that clauses 10 and 63.10 are counterparts, so a party which does not act, 'in a spirit of mutual trust and co-operation' cannot seek a reduction in prices. It was therefore necessary to evaluate the contractor's conduct in instructing the omissions.

Instruction not in accordance with the contract

The appeal court noted each breach of contract was a compensation event under clause 60.1(18) and the parties agreed the effect of the omission was to reduce the defined cost. This was because at tender stage a 'blended' rate was used for dredging, which averaged out the cost of easier and more difficult works. The subcontractor argued the omissions took out the easier work, leaving a disproportionately higher share of the more difficult work. In this case, there was first a reduction of the original rate in the bill of quantities from £7.48/m³ to £5.82/m³ and then a further reduction to £3.80/m³, reducing the rate by half.

The issue however was whether such reduction was possible under clause 63.10. Here the appeal court accepted that all compensation events are valued in the same way under clause 63.1. But

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this places a reliance on clause 63.2, which states that if, 'the effect of a compensation event is to reduce the total Defined Cost, the Prices are not reduced except as stated in this subcontract'. The appeal court concluded that clause 63.10 applies only to a lawful change and does not apply where an instruction is issued in breach of contract. This is because such an instruction would not be given, 'in accordance with this subcontract,' as required under clauses 14.3 and 27.3, and would therefore be invalid.

The appeal court also noted that in addition to all breaches of contract being treated equally

(as none produces a reduction in the prices), there is no obligation to obey an instruction given in breach of contract. 'NEC3 should not be charter for contract breaking,' it concluded.

Conclusions

Care needs to be taken when considering the omission of work, especially when the standard provisions are amended. The facts in this case were unusual in terms of the bespoke amendment and the way the omission affected the defined cost, but it is clear the appeal court was also influenced by these facts and

the 'theme of unfairness' relied on by the subcontractor.

What is interesting is that the appeal court saw clause 10 as having a real function. It is not merely an avowal of aspiration, and it affects how other provisions operate – in this case the ability to reduce the prices under clause 63.10. Similarly, it is useful to have confirmation that the obligation to obey instructions is limited to valid instructions issued under the contract, and that a compensation event which is a breach of contract cannot result in a reduction of the prices. ○

LEGAL

Scottish users can go to court at any time but must still adjudicate



LOUISE SHIELDS AND ANDREW GROOM BRODIES

KEY POINTS

- Scottish courts confirm that NEC users are not barred from initiating court proceedings at any stage of a dispute.
- However, court proceedings will be stayed until completion of all NEC dispute resolution procedures, including adjudication and, if specified as the tribunal, arbitration.
- NEC users should consider adding explicit wording to contracts to ensure disputes cannot be referred to a court prior to completion of each step of the NEC dispute resolution process.

Two recent Scottish court cases have confirmed that NEC users in Scotland can start court proceedings before they start adjudication, even though they must finish the adjudication and other NEC dispute resolution mechanisms before the dispute can actually be heard in court. It remains to be seen whether the English courts will follow the Scottish courts' lead.

Fraserburgh harbour case

In October 2021 the Scottish Court of Session's Inner House (the appeal court) overturned the January 2021 decision by judge Sarah Wolffe in *Fraserburgh Harbour Commissioners v. McLaughlin and Harvey Limited*, reported in Issue 112 (Vernon, 2020). The appeal court found that when an NEC3 Engineering and Construction Contract (ECC) states the tribunal is to be arbitration, clause W2.4 did not stop the parties going to court before they started the contractual dispute resolution process.

However, the appeal court held it would not be able to consider the dispute prior to the NEC dispute resolution mechanisms being followed, and accordingly stayed the case pending adjudication, a notice of dissatisfaction and then arbitration. The decision went some way to providing clarity on the Scottish courts' approach to interpretation of clause W2.4, reinforcing the position that where the tribunal stated in an NEC contract is arbitration, the parties must adjudicate and arbitrate first before the dispute can be heard in court.

Glasgow hospital case

In November 2021 the NEC3 ECC clause

W2.4 dispute resolution mechanism was again examined in *Greater Glasgow Health Board v. Multiplex Construction Europe and others*, though in this case the parties had selected the tribunal as the Scottish courts rather than arbitration. The case related to a £73 million claim against main contractor Multiplex and its partners over alleged defects on the £842 million Queen Elizabeth University Hospital in Glasgow, which opened in 2015.

The Scottish Court of Session's Outer House (the court of first instance) acknowledged that client Greater Glasgow Health Board had failed to comply with clause W2.4. There had been no prior adjudication proceedings and consequently no notice of dissatisfaction issued before service of the court proceedings. It was therefore argued by the defendants that the client was contractually barred from raising the action in court, so the action was incompetent and should therefore be dismissed rather than stayed pending compliance with clause W2.4.

While judge Colin Tyre agreed the action was contractually barred, he nonetheless declined to dismiss it, instead staying it for adjudication. He said there was no material distinction between the adjudication and tribunal provisions of W2 so this was the, 'appropriate and usual course'. The decision raises a number of issues for NEC users.

Despite the operation of a contractual bar, the judge was of the view that the courts retained jurisdiction to hear disputes under an NEC contract. In forming this view he determined, perhaps surprisingly, that clause W2.4 was not a 'condition precedent'. This seems to be because the contractual bar was a matter which could be waived by the other party and did no more than

prevent the courts from entertaining the dispute so long as the bar remained unwaived and yet to be decided by an adjudicator.

The judge distinguished the obligation from a condition precedent, stating it was not a contractual term of such materiality that its non-fulfilment amounted to a discharge of the contract and liberation of the other party from its obligations. It will be interesting to see how subsequent courts treat this approach and whether the English courts will follow the Scottish courts' lead.

The judge reiterated that in the absence of a waiver of the contractual bar, the provisions of clause W2.4 applied and the parties were bound to comply with the dispute resolution mechanism in it. In doing so he dismissed the client's arguments that the complexity, size and value of the dispute, which could result in, 'as many as 22 adjudications,' meant that adjudication was an inappropriate forum.

In his view, if parties to a contract wished to exclude disputes, including those in which joint and several liability is asserted, they could have done so. It was foreseeable at the time of contracting that in a project of this scale disputes might arise, but the parties had not seen fit to make special provision for disputes of any particular complexity. The contract stated that, 'any dispute,' may be referred, 'at any time,' for adjudication. This analysis is clearly welcome and provides some certainty to parties contracting under clause W2.4 of NEC3 and NEC4 contracts.

Implications for NEC users

The two decisions mean NEC users cannot escape the requirement to adjudicate specified at clause W2.4. This is a pre-requisite to a court or arbitration engaging in the merits of a dispute. However, it is clear that irrespective of the tribunal specified, and notwithstanding that parties have expressly contracted not to, 'refer any dispute under or in connection with the contract to the tribunal unless and until it has first been decided by the Adjudicator in accordance with the contract', that the courts are likely to look for ways to sidestep that contractual bargain and maintain their right of jurisdiction.

With that position in mind, if NEC users wish

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FAQs



ROBERT GERRARD
NEC USERS' GROUP SECRETARY

This is a selection of recent questions to the NEC Users' Group helpline and answers given. In all cases it is assumed there are no amendments that materially affect the standard NEC3 or NEC4 contract referred to.

Changing people rates for a person

Question

We are a client who has appointed a consultant under an NEC4 Professional Service Short Contract (PSSC) on a time-charge basis. Categories of persons are listed as engineer, senior engineer and so on, with corresponding hourly rates. The qualification and responsibility requirements for each of these roles is defined in the scope. Named key persons have also been provided, with the job entry linking directly to the category of person, for example Susan Smith has the job of engineer, with the qualifications and responsibilities entries referring to the scope. The intention of this was that, for the duration of the contract, rates would be fixed for named consultant's staff, for example Susan Smith would always cost the engineer rate of £x per hour, however this was not stated explicitly. Shortly after contract award, one of the engineer key persons became chartered, and then satisfied the scope requirements for senior engineer. The consultant is claiming this person now attracts a senior engineer rate, however we do not see a mechanism in the contract which would justify this. Clause 50.3 states, 'the amount due...is...for work carried out on a time charge basis, the time expended on work which has been completed multiplied by the appropriate people rates'. Are key persons linked to the people rates for the purpose of payment?

Answer

Presumably the entry on page 2 of the contract data states that the work is to be carried out on a time-charge basis and that the price list only shows expenses. There is no contractual link at all between the people rates and key persons. The concepts of these two are different.

Key persons are about the quality of staff the consultant will use, regardless of what or how they are paid for those staff. The list of key persons ensures you get the people the consultant based its offer on. If the consultant wants to change any of the key persons, it must provide a replacement with qualifications and experience as good as the person being replaced, see clause 21.2.

In a time-charge-based contract, the people rates are what you pay the consultant for the people it provides. There are several different ways to link the people rates to the people being used. You appear to have linked them based upon qualifications and something called responsibilities in your contract rather than, for example, a job description, name or salary range. In that case, if the person has the qualifications and responsibilities you have listed, they are charged at the rate due for those people. It is irrelevant as to whether they are also named as a key person or were charged at a different people rate before.

However, just because a person gets the correct qualifications, they do not necessarily now have the responsibilities described in the contract to go with those qualifications. So, it will also depend on how the consultant has described those responsibilities and whether or not the newly qualified person now meets the criteria set out in that description. If they do, the

relevant people rate for those new qualifications and responsibilities is used.

The parties' intentions count for little in any contract; it is what the contract they entered into says and objectively means that counts. If you had wanted to achieve the result of 'Susan Smith would always cost the engineer rate of £x per hour', you should have linked the people rates to the name of the person. As your contract is written, once Susan Smith meets the qualifications and responsibilities of a higher grade in your people rates, the consultant is paid for her at the people rate for that higher grade. There is nothing unfair about this, after all you are now getting a better qualified and more responsible person than before.

Finally, this is not in any way a criticism of the way you have described the roles for the purpose of the people rates, as that is usually the most sensible way of doing it. Other ways, such as using names or vague job titles, would probably have caused more problems than you have now. However, as people get better qualified and more responsible, their salaries will usually increase to reflect that, and therefore the people rates should also change to reflect that.

Value engineering percentage

Question

We are the client on an NEC4 Engineering and Construction Contract (ECC) Option A (priced contract with activity schedule). The contractor wants us to retain all the savings from any of its proposals in relation to value engineering; it does not wish to split the saving as per clause 63.12. At present, contract data part one is drafted as the default 50% value engineering percentage. Using a clause 12.3 agreement we have drafted a deed of variation that will be signed by both parties. However, there is disagreement about what the value engineering percentage needs to be for us to retain all the saving: is it 0% or 100%?

Answer

If you are currently negotiating the contract, you will not need to use clause 12.3. All you will need to do is to insert the correct percentage in the contract data. Otherwise the answer to your questions lies in the wording of clause 61.12. If you are going to keep all the savings made by the contractor's proposals, the value engineering percentage is 100%. That will mean the prices are reduced by 100% of the value of the assessed effect of the compensation event. ○

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to ensure that disputes cannot be referred to a court prior to each step in the dispute resolution mechanism being complied with, as matters currently stand, even more explicit wording will be required. This could include wording to the effect that the provisions of clause W2.4 are condition precedent; that they act as a contractual bar; and that in the absence of a prior waiver, no court shall have jurisdiction in circumstances where a party does not comply with the provisions of clause W2.4.

That perhaps raises the question of whether parties should include such wording. There are practical reasons why they may wish to ensure their disputes are not put before the courts, not

least confidentiality and cost considerations.

In addition, the effect of the Glasgow hospital decision also has potential implications for the timescales for dispute resolution. Most jurisdictions have statutory limitation periods: in Scotland it is 5 years. The client stated the court summons was served at a date which was, in its opinion, close to the expiry of the limitation period. The effect of the decision is that, at some time in the future, the client will be obliged to refer the dispute to adjudication before engaging in court proceedings. How quickly it must do so is unclear. The dispute resolution procedure could take many years, and only after its completion might the dispute on the

interpretation of clause W2 come back before the appeal court for a possible final court case to commence.

That is an outcome most contracting parties are likely to want to avoid. It is also one that would appear contrary to the intention of NEC clause W2.4 as an efficient and cost-effective mechanism for the resolution of disputes.

Reference

Vernon J (2021) Scottish court confirms adjudication is a mandatory step under option W2. *NEC Users' Group Newsletter*, no. 112 (May 2021), p. 9.



ICE Register for Accredited NEC professionals

Below are new entrants on the Institution of Civil Engineers (ICE) Register for Accredited NEC Professionals at necprofessionals.ice.org.uk. The register recognises the technical and practical skills required of project managers and supervisors using the NEC4 or NEC3 Engineering and Construction Contract (ECC) and service managers using the NEC4 or NEC3 Term Service Contract (TSC). All individuals on the register have completed the relevant accreditation programme and successfully passed the stage 1 and stage 2 assessments.

Accredited NEC4 Project Managers

Alvin Au
Ricky Chang

Jarvis Cheung
Yuet Cheung
Mike Francis
Adam Hughes

Daniel Kitcher
Jon Roysds
Colin Whitton
Yu Hin Wong

nec DIARY		
10 January 2022	NEC4: ECC Project Manager Accreditation	Virtual (UK)
17 January 2022	NEC4: ECC Project Manager Accreditation	Virtual (HK)
26 January 2022	NEC4: Introduction to the FMC	London
26 January 2022	NEC3 to NEC4 ECC Project Manager Accreditation extension	Virtual (UK)
08 February 2022	NEC4: ECC Project Manager Accreditation	Virtual (UK)
08 February 2022	NEC4 Foundation Certificate	Virtual (AU)
14 February 2022	NEC3: ECC Project Manager Accreditation	Virtual (UK)
17 February 2022	NEC4: ECC Supervisor Accreditation	Virtual (UK)
22 February 2022	NEC3 to NEC4 ECC Project Manager Accreditation extension	Virtual (UK)
23 February 2022	NEC3: Introduction to the ECC	London
28 February 2022	NEC4: ECC Project Manager Accreditation	London
10 March 2022	NEC4: Introduction to the ECC	Manchester
14 March 2022	NEC4: ECC Project Manager Accreditation	London
14 March 2022	NEC3: ECC Supervisor Accreditation	Virtual (UK)
15 March 2022	NEC3 to NEC4: ECC Project Manager Accreditation extension	Virtual (HK)
17 March 2022	NEC3: Introduction to the PSC	Virtual (UK)
22 March 2022	NEC4: ECC Project Manager Accreditation	Virtual (UK)
23 March 2022	NEC3 to NEC4 ECC Project Manager Accreditation extension	London
28 March 2022	NEC4: ECC Project Manager Accreditation	Virtual (HK)

Key: : **Bold** – NEC Users' Group event, **ECC** – Engineering and Construction Contract, **FMC** – Facilities Management Contract, **PSC** – Professional Service Contract, **Virtual** – online course running from 9 am to 5 pm local time in Britain (UK), Hong Kong (HK) or Australia (AU).

NEC Users' Group corporate members

A warm welcome is extended to all new corporate members, highlighted in **bold** in the corporate membership category lists below. Individual memberships are also available.

- AFFILIATE** Jackson Civil Engineering Group Ltd
- DIT** Hong Kong Institute of Construction Adjudicators ICE (Canada)
- PLATINUM** AWE Brighton and Hove City Council Dounreay Site Restoration Ltd FCC Construcción Geoffrey Osborne Ltd High Speed Two (HS2) House of Commons INOVYN ChlorVinyls Ltd Instalcom Ltd Lantis **Leighton Asia** LLW Repository Limited Magnox Limited MTR Corporation Limited National Highways Pinsent Masons LLP RWE Renewables Management UK Limited Sellafield Ltd Skanska Construction UK Ltd Southern Water Tarmac Twoplustwo Commercial Services Limited Vanderlande Industries UK Ltd WSP UK Ltd **GOLD** AECOM Arcadis Arup Atkins UK Balfour Beatty Major Projects BAM Construct UK Ltd Bechtel Ltd. Bristol City Council CampbellReith Canal & River Trust Capita Property & Infrastructure Ltd Cardiff Council Central Procurement Directorate Costain Limited CPMS Ltd **CSIRO Astronomy & Space Science** Currie & Brown UK Ltd (Milton Keynes) Defence Infrastructure Organisation (DIO) Dover Harbour Board Driver & Vehicle Standards Agency East Sussex County Council Eurovia Group Ltd Farrans (Construction) Ltd FDO Services Framatome Freeths LLP Galliford Try Gardiner & Theobald LLP Gateshead Metropolitan Borough Council GlaxoSmithKline H W MARTIN Fencing Contractors Ltd Heathrow Airport Limited Imperial College London
- John Sisk & Son Ltd Kone PLC Laing O'Rourke Lincolnshire County Council Mace Group Meinhardt Infrastructure & Environment Ltd National Grid Plc Network Rail NG Bailey Northern Ireland Water Northumbrian Water Limited Ove Arup & Partners Ltd Oxfordshire County Council Perth and Kinross Council Pick Everard Project Centre Limited Rider Levett Bucknall (RLB) RPS Group Plc RWE Generation Scottish Water SKA Observatory Stantec UK Ltd Stephenson Harwood Tetra Tech Limited The British Museum The City of Edinburgh Council The Coal Authority The Orange Partnership UK Power Networks (Operations) Ltd United Utilities Water Plc Vinci Construction UK Limited Volker Services Ltd Warwickshire County Council Wood Group UK Ltd YGC Yorkshire Water Services Ltd
- SILVER** Airport Authority Hong Kong Arbus Ltd Architectural Services Department, HKSAR Barhale Plc Beria Consultants Ltd BK Surco Ltd Borough of Poole Boskalis Westminster Ltd Buckinghamshire County Council Burness Paull Cambridgeshire County Council China State Construction Engineering (Hong Kong) Ltd, Chun Wo Construction & Engineering Co Ltd City of York Council (Transport Division) Civil Engineering & Development Department, HKSAR Connect Plus Ltd Cornwall Council Deacons Defence Science & Technology Laboratory Development Bureau, HKSAR Drainage Services Department Environment Agency
- Faithful+Gould Gammon Engineering Construction Company Limited George Leslie Ltd Gleeds UK GVE Commercial Solutions Highways Department, HKSAR HKCA Civil Engineering Committee Holman Fenwick Willan LLP Jacobs Jacobs UK Ltd JCP Consultancy International Limited Kum Shing (KF) Construction Co Ltd Leicestershire County Council MacKenzie Construction Limited Management Process Systems Ltd Mott MacDonald Hong Kong Ltd Mott MacDonald Limited National Museum Wales Norfolk County Council North Ayrshire Council Northumberland County Council Norton Rose Fullbright LLP Osborne Clarke Pagabo Paul Y. Engineering Group Limited Projection Group R J McLeod Ltd Shui On Construction Company Ltd South East Water Ltd South Gloucestershire Council South Lanarkshire Council Sutton & East Surrey Water Plc thinkproject UK Limited TLJ LLP Trebes Consulting Limited Turner & Townsend TYPASA Limited Vastream Construction Limited Water Supplies Department, HKSAR West Berkshire Council West London NHS Trust Wilsons of Cambridge Worcestershire County Council
- BRONZE** Alehan Project Engineering Limited Ansaldo Nuclear Anthesis (UK) Limited AstraZeneca BAE Systems Belcan Advanced Solutions Ltd Bennetts Associates Binnies UK Ltd Breheny Civil Engineering Ltd. Capital Consulting International Ltd Castle Hayes Pursey LLP CCJ Group Limited Chandler KBS City of Salford Council
- Costain Limited Ctori Construction Consultants Limited Daniel Commercial Management Services Deane Public Works Ltd Department of Health Dyer & Butler Ltd East Lothian Council Eastern Solent Coastal Partnership Foot Anstey LLP FTI Consulting LLP Fulkers George Corderoy & Co Glanville Projects Ltd Guttridge Haskins & Davey Ltd Hanscomb Intercontinental HaskoningDHW UK Ltd HLG Associates Limited HS Infra Ironside Farrar Ltd John Papworth Limited K&L Gates Kinlan Consulting Pty Ltd Leones Consulting Lilleker Bros Ltd LM Services Mangotree Kent Limited McAdam Design McNealy Brown Limited MissionCX Limited MM Miller (Wick) Ltd MY Cheng & Co (Engineering) Ltd NBS Services NE Consult NEC NHS National Services Scotland NMCN PLC Norman Rourke Pryme Ltd Novi Projects Palm Commercial Services Ltd Palmers Solicitors Pat Munro (Aless) Ltd pdConsult Peak Gen Top Co Limited Procom-IM Ltd Quigg Golden Ltd RedRay Ltd Reliance High Tech Ltd Ronez RSK Severn Trent Services Operations UK Ltd Solomons Europe Ltd Steve Brown & Associates Ltd Summers-Inman Construction & Property Consultants Synergie Training tenax limited The Clarkson Alliance The Francis Crick Institute The Highland Council The Rochester Bridge Trust Timothy Willis TKR Consultancy Ltd Trebes Consulting Limited Venture Engineering Projects Ltd Wallace Stone LLP Woodrush solutions Wrekin Consulting Limited

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