



NEC goes electronic

The first of a new range of software products based on the NEC is about to be launched. Due out in May 2000, the 'NECD' will provide major enhancements to using both the Engineering and Construction Contract and Subcontract forms.

The CD has been developed by publisher Thomas Telford, consultant Martin Barnes and a software team headed by John Gillespie based in the United States. Its features include

- electronic access to contract text, guidance notes and flow charts
- hypertext links allowing immediate switching between contract clauses, guidance note references and flow chart boxes
- full search facilities for words and phrases within the documents
- ability to follow the decision processes of the contract by scrolling backwards and forwards through the flow charts
- a 'navigation bar' in text documents allowing

movement forwards or backwards in documents page by page or jumping between the document, the contents and the index or, using a browser, going backwards or forwards through previously accessed material

- a further navigation bar in flow charts that allows movement from box to box following a particular set of contract conditions.

The CD will also provide the ability to generate and print Contract Data with controls that

- allow selection of main option and appropriate secondary options
- automatically prompt for required information under chosen options
- automatically exclude unnecessary information
- ensure the format and nature of data entered comply with the contract
- ensure that all necessary data is entered before contract data is accepted.

A demonstration version of the CD will be made freely available for potential users to assess its functionality. Users can convert this to a fully operational version by paying a licence fee, likely to be around £95.

The CD will be usable on the machine for which it is licensed, but multiple disks for use on multiple machines in one organisation will be available at reduced rates.

All members of the Users' Group will automatically receive six copies of demonstration CDs as soon as they are available in late May. For more copies or for further information contact NEC coordinator Rekha Thawrani on +44 (0)20 7665 2446 or at thawrani_r@ice.org.uk. ○

The NECD will make using the NEC and preparing Contract Data much easier

Mott MacDonald becomes ECC client



Mott's Cambridge office is being refurbished under the Short Contract

Engineering consultancy and Users' Group member Mott MacDonald has confirmed its commitment to the NEC by choosing the Engineering and Construction Short Contract to refurbish its own offices at Station Road in Cambridge. According to Mike Law of the firm's contracts unit, 'the NEC was new to the individuals concerned but the discipline of having to complete the contract data forms soon persuaded them of the benefits.' ○

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Afan treatment works flags up new approach

by Scott Motley, EC Harris

The new £30 million Afan wastewater treatment works near Port Talbot in South Wales will serve a population of 135,000 and should ensure that Aberavon bathing beach gets a coveted Blue Flag next year. Due for completion this month, it has been built in just 21 months under the ECC but with a novel approach to roles.

The project was undertaken under a full partnering arrangement between client Hyder Utilities (Dwr Cymru / Welsh Water), Costain Civil Engineering, Hyder Consulting and E C Harris in addition to the Environment Agency, the local authority and key sub-contractors and suppliers.

Interviews critical to tender process

E C Harris was retained to provide commercial services at tender stage following involvement in a similar procurement route on the Llantwit Major treatment works. Design was not sufficiently developed at the tender stage to produce even approximate quantities, so tenders were requested from several contractors based on a model document. Tenderers were informed the project was to be let under a partnering arrangement, probably using the Engineering and Construction Contract (ECC). They were asked to price the document in full, provide all-inclusive staff rates and give an indicative programme, albeit based on very limited information. The tenderers also had to state their 'fee' percentage (overheads and profit).

After a commercial appraisal, interviews were carried out with two preferred contractors. At the interviews the contractors put forward their proposals and identified their respective teams. The interviews gave an opportunity for the client not only to listen to the contractors' ideas and proposals but to meet the people they were going to be working with. Appropriate personalities were considered essential to the success of the partnering arrangement.

Partnering workshop establishes management structure

Following the award of the contract to Costain Civil Engineering, a two-day partnering workshop facilitated by a team from the John Carlisle Partnership was held in December 1997. All key stakeholders were present. The workshop succeeded in setting the scene for the project and laid the foundations for good working relationships between all parties. The management structure for the project was put in place during the workshop, identifying the 'steering group' as the upper tier of management and the 'core team' running the job on a daily basis. The key stakeholders all had a representative allocated to both groups. A charter was agreed with objectives that were regularly monitored as a measure of the project's success.

The contractor and designer Hyder Consulting were then co-located in the client's offices in Swansea and detailed civil, mechanical and electrical design proceeded over the next few months. Risks were looked at in depth and a master programme developed. All parties contributed and bought into the process. Although the bulk of the design work was done by the designer, the client and contractor had major inputs. Value engineering was carried out during this period to bring the proposed scheme in line with the client's budget.

Advanced works laying an 8km transfer pipeline along Aberavon Promenade started in March 1998. Work on the main site started in August.

Rewarding design savings

The form of contract - ECC option C (target contract with activity schedule) - was chosen for its appropriateness to the procurement route and because of its perceived (following Latham) suitability for partnering projects. As the scheme progressed this proved to be true.

Amendments were kept to a minimum and a share mechanism was used. The share is basically 50/50

between the client and the contractor but a small part of the client's share also went to the designer.

Although the designer was on a fixed fee, the idea was that if it was willing to pursue possible design savings then it could share in such savings. This proved successful.

Sceptics might suggest an element of 'bottom drawer' could take place in this situation - that is holding back ideas until the target cost had been agreed. On Afan this has not happened. Any

savings that have come about through design have been arrived at by the joint efforts of the whole partnering team. It must be remembered that share mechanisms work both ways. If final costs run over the target cost then the designer under this arrangement will be liable for some of the 'pain'! Engineering consultants beware.

Playing the roles differently

Under the ECC certain roles are identified. The roles have been filled on the Afan project somewhat differently to conventional schemes.

The 'project manager' was the 'core team', which as well as being in constant touch via phone and e-mail met every week to discuss and resolve issues. Some say management by committee never works but in this case it has gone very smoothly. Generally the person in the core team most appropriate to tackle a particular issue did so, with the final decision being sanctioned by the other members.

The 'supervisor' was the contractor. The guidance notes to the ECC define this role as somebody who checks that the works are constructed in accordance with the contract, a little bit more than the old clerk of works role. This approach worked well on the previous Llantwit Major scheme where Costain was also the contractor and has been successful on Afan. The client did not employ people checking the contractor's work. There was no duplication of roles, only integration. The contractor operates an approved quality system and was perceived to be best placed to carry out this role under the partnering approach.

Another defined role in the ECC is that of the 'adjudicator'. On the Afan scheme the adjudicator was the 'steering group' which consisted of a single representative from each of the main parties (area manager / partner level). The steering group met for a general overview meeting every three months or so. They have not yet been called to act as adjudicator and, judging by how well the job has gone, are not likely to do so.

The 'secondary option clauses' included within the contract were not unconventional. In the spirit of partnering, damages for delay were kept to a minimum and no retention held.

Only nine compensation events

Once the design was sufficiently developed, the civils work was quantified and the contractor's tendered rates applied where appropriate. If tendered rates were not applicable then new rates were negotiated. The mechanical and electrical works were designed and jointly procured by the designer and contractor using the client's framework suppliers.

Resources were agreed based on the proposed programme and integrated into a single site team. All members of the team were therefore working towards



The £30 million Afan project has set a new benchmark for partnering agreements

completion of a successful project and not doing unnecessary checks on each other's work.

The initial target cost was agreed at £28,304,172. A totally 'open book' approach was adopted for the project with the contractor's own cost recording system being used. Cost headings were agreed with E C Harris and used as a basis for the monthly cost reporting. A monthly audit was carried out over three days when spot checks were made against labour, materials, plant, subcontractors and so on. The payment certificate and cost report followed shortly. There is no remeasuring under ECC option C and not all items are checked through the spot-checking process. A full audit of unchecked items will be carried out only if requested by the client.

The cost report itself indicates anticipated out-turn costs against the whole project costs, not just the contractor's target element – that is it includes land, client internal costs, commercial services fees and so on. All costs are revealed.

Earned value analysis (EVA) was employed within the report to produce indicators, which accurately compared value of progress to date to actual cost to date and value of progress to date to planned expenditure to date. Analysis of the two indicators revealed the true state of actual progress and cost against planned. The project was below target and on programme.

There were only nine compensation events. Compensation events were introduced as a 'core clause' within the ECC and basically cover what would have traditionally gone under the headings of claims and variations. Five of the nine related to implementation of provisional sums already within the target. The remainder were good old variations. The lack of compensation events is testament to the concepts and approach made on the Afan project.

Taking the lessons forward

The lessons learnt going through the Afan process have been adopted and improved for other schemes. The best parts of the approach will be taken through to AMP3 (the next five-year water programme commencing 2000) and some of the ideas taken on board elsewhere.

Afan is one of the Movement For Innovation (M4I) demonstration projects - part of the South West and the West Country cluster. The projects within the cluster meet regularly to discuss openly their best practice ideas and how they relate to the government's task force recommendations on improving the construction process. The four P's - product development, partnering the supply chain, project implementation and production of components - are areas the task force has asked each demonstration project to look at. Afan has tabled best practice ideas in three out of the four areas. Access to this information is possible through the M4I web page at www.m4i.org.uk.

All parties involved with the project are pleased with the way it has gone. It is hoped that the team will stay together and be involved in some strategic partnering in the coming years. The test now is to spread the word about Afan, how the scheme was implemented and how the ideas can be used and improved upon in the future.

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New pipeline stretches ECC

by Steve Loggie, A B Rhead & Associates Ltd

A new 33km pipeline in Warwickshire – another Movement for Innovation demonstration project – has proved a stiff test for the Engineering and Construction Contract (ECC). It involved the installation of a 900mm diameter welded steel pipe through the Warwickshire countryside.

The client was represented on the Construction Round Table and was keen to develop the project using the ECC option C (target price). This provided both parties to the contract with incentives to reduce costs on a risk-reward basis and allowed, as Egan's *Re-thinking construction* report recommended, for players in the team to share in success.

The overall aim was to reduce the time spent in designing and building the pipeline; to meet environmental and Health and Safety Executive requirements; and to be able to measure quality against industry benchmarks, standards and specifications.

AB Rhead & Associates' involvement included representing the client commercially and contractually as a member of the integrated team. This included the client, the main contractor, its sub-contractors and suppliers. The team managed the project and remained in place for the duration, therefore helping to break down barriers of communication that can often exist on construction projects. The result was a project which was completed without protracted adversarial discussion and completed generally within the parameters set out by the client at the project's inception using the much maligned but essentially necessary 'mutual trust and co-operation'.

Problems concerning programme and extensions of time

However, in the opinion of the project team, the ECC failed in a number of areas to provide an acceptable remedy relating to the programme and extensions of time. An example is the situation where construction activity falls behind the construction programme. The project manager, instructing under clause 32.2 for the provision of an updated programme, is powerless as this does not ensure that activity remains on programme, unless he instructs to accelerate. Ultimately, liquidated damages would provide a solution but at a cost in terms of time.

The team would have also liked to have seen some performance measurement against clear targets in terms of quality, programme and cost. This could work as a further incentive with the introduction of variable retention, or variable retention free

amounts whereby the sum retained from the monthly assessments would vary on a pre-determined scale depending upon the main contractor's performance against those targets. It was also agreed that a 'with due diligence' clause similar to clause 46 in ICE 6th edition would be a benefit to the project manager.

In making an assessment as to whether a compensation event for weather is due, (clause 60.1.13), the project manager compares actual data to that which has been historically collected, that being identified by the Meteorological Office as a '1 in 10 year' value. Ordinarily construction sites are static, requiring one reading of weather data. On a pipeline project 33km long there was a requirement for multiple readings to be taken. The nature of pipeline

construction is similar to that of a conveyor belt, with each of the activities following on behind the other. An area affected by rain will not only have a direct impact upon the works in that area, but also an indirect impact upon those activities that are to follow as the ground conditions deteriorate.

Logistically, construction works vary to such an extent

that it becomes unreasonable to evaluate non-static works in the same manner. Some alternative evaluation of weather impact should be found for such works.

Greater understanding of activity schedules needed

The use of the activity schedule within the ECC should promote good cost and value control together with good house keeping. Unfortunately few main contractors or sub-contractors understand how to use the activity schedule. This lack of experience is sometimes construed as ignorance, and sometimes exploited, but it is no more than a lack of confidence with the ECC forms. So many organisations have yet to experience working with these forms of contract that it sometimes becomes difficult to work with them. Clients, consultants and contractors alike should all benefit from being a little less ignorant.

In real terms, the use of the ECC must continue (unamended) for the benefits to be achieved. Option C is beneficial in developing an open and less aggressive contractual relationship. While accepting that the risks do increase for the ultimate client with an aggressive risk range, both parties should be sufficiently encouraged to be positive in addressing the issues that arise on every construction contract.

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Sequential operations such as pipeline construction require an alternative method for evaluating weather impact

A review of the ECC partnering clause

Partnering is increasingly becoming an established practice within the UK construction industry. By 1999, around 20% of the industry was engaged in partnering, with some contractors estimating that partnering brought in 40% to 80% of their work.

Unlike other agreements within the construction industry, there is not yet a standard form of partnering agreement (although various bodies such as the Construction Industry Board are actively promoting their agreements as the new industry standard). The Engineering and Construction Contract (ECC), however, contains a standard partnering clause which is included at the start of the main contracts in the series at clause 10.1 and which states that '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'.

Whatever the exact wording of a partnering clause or agreement, it refuses to divide responsibility between the parties – since partnering is, by its very nature, co-operative. By contrast, clauses in the substantive construction contract are essentially divisive, stating the responsibilities of the contractor and those of the employer, but not generally including provisions which place the same obligations on both parties within the same clause.

The substantive construction contract (indeed any such contract) contains inherent divisions between the parties (of risks, responsibilities, rewards etc.). The ECC attempts to bridge this division by including the partnering clause within the contract. Whether this clause is enforceable and, if so, whether it has unforeseen effects on the allocation of responsibilities and risks set out in the remainder of the contract, are the questions which this article discusses.

Is clause 10.1 enforceable?

Most partnering clauses (or separate contracts or charters) are expressed to be non-binding and so the courts have not yet had to consider the enforceability of the partnering clause itself (although the effect of a non-binding partnering charter was discussed in the first instance decision in *Birse Construction Ltd v St David Ltd*).¹

Perhaps the most widely-held current view is that the parties' commercial standing or reputation may be affected by their conduct compared to the partnering agreement but not their legal position. This accords with the general reluctance of English law to imply duties of good faith outside accepted areas such as employment and insurance contracts. See, for exam-



by Bob Maynard and Deborah Brown, Barlow Lyde & Gilbert

ple, *Bedfordshire County Council v Fitzpatrick Contractors Ltd*,² where Dyson J declined to imply a term into the contract that neither party to a road maintenance contract should conduct itself so as to 'damage the relationship of confidence and trust' between them. He pointed out that the parties in *Bedfordshire* had taken 'a great deal of trouble to spell out with precision and in detail the terms that were to govern their contractual relationship' and there was therefore no scope for him to imply a general term requiring mutual trust and confidence.

However, the law on implying duties of good faith is arguably irrelevant to parties to the ECC, which expressly states these obligations in clause 10.1. Even so, the clause may be viewed as too vague to be enforceable. Following the principles of *G. Scammell & Nephew Ltd v Ouston*,³ agreements to co-operate or to act in a spirit of mutual trust are unlikely to meet the requirement of certainty without further elaboration of what is meant by 'co-operation' or 'a spirit of mutual trust'.

Relationship between clause 10.1 and the remainder of the ECC

Each contract must be considered as a whole and no one clause can be divorced from the remainder of the contract.⁴ Therefore, even if the courts find clause 10.1 sufficiently certain to enforce its obligations, determining its interrelationship with the substantive construction contract presents a further difficulty.

Theoretically, under the ECC, if the employer fails to co-operate, the contractor can claim that this qualifies as a compensation event under clause 60.1(18). However, if the contractor attempts to enforce the partnering clause on this basis, it is arguably not itself acting in a spirit of co-operation and may therefore be in breach of clause 10.1. This is particularly likely given

that the contractor knows that the sanctions for its failure to co-operate are not reciprocal.

If the contractor acts in breach of clause 10.1 this is unlikely to qualify as a substantial failure to comply with its obligations under clause 95.2 which would allow the employer to terminate the contract. This has the effect that an attempt to enforce the partnering clause makes the enforcing party breach its own obligation to co-operate. The clause may therefore be self-contradictory. Where this is so, the courts may find it easier to ignore the clause if to do so does not invalidate the contract as a whole.⁵

The ECC as a whole can stand without the partnering obligations contained in clause 10.1 (i.e. leaving intact the obligation to act as stated in the contract) and if the courts are called upon to enforce the clause, they may choose merely to treat it as not intended to be enforceable in the same way as, say, other clauses providing for payment or defects. This is supported by the general rules relating to construction of contracts.

Where clauses are inconsistent, the courts will enforce those which they think give effect to the real intention of the parties (determined from the contract as a whole) and reject those which defeat that intention.⁶ On this basis, the courts may reject the second part of clause 10.1 if the obligations to act in a spirit of mutual trust and co-operation defeat the intentions of the parties as determined from the remaining clauses.

Further support for the contention that clause 10.1 is not intended to be enforceable is provided by the provisions relating to dispute resolution. Clause 90.1 states that 'any dispute arising under or in connection with this contract is submitted to and settled by the Adjudicator'. However, an attempt by one party to enforce the partnering clause by adjudication, that is by notifying a dispute relating to the other party's allegedly uncooperative behaviour, is essentially a divisive and non-co-operative mechanism to resolve the dispute.

Yet, under the Housing Grants, Construction and Regeneration Act 1996, the right to refer a dispute to adjudication cannot be excluded by agreements to co-operate. It could be said that compliance with clause 10.1 would always require the parties to attempt alternative forms of dispute resolution, such as mediation, before adjudicating.

Whilst the parties are free to include in their contract other, more co-operative, means of dispute resolution, an aggrieved party always has the option of ignoring clause 10.1 and referring a dispute to adjudication. In this area also, the obligations contained in clause 10.1 may be unenforceable if they are perceived

as incompatible with the parties' statutory rights to adjudicate. However, set against this is the approach taken in the first instance decision in *Birse*.

The parties signed a partnering charter but subsequently fell out over whether or not they had concluded the substantive construction contract. Lloyd J. said 'the terms of that document [the charter], though clearly not legally binding, are important for they were clearly intended to provide the standards by which the parties were to conduct themselves and against which their conduct and attitudes were to be measured.'

Although the Court of Appeal overturned the first instance decision, it did so reluctantly, with Ward LJ dissenting, on the basis that Lloyd J should not have decided the issue on affidavit evidence alone. The Court of Appeal did not, however, deal with Lloyd J's other comments on the partnering charter. So, it is still possible that a court could use a non-binding partnering agreement to influence its interpretation of whether the parties had complied with their obligations under the substantive contract.

Effect of an enforceable partnering clause

If a court or adjudicator finds that clause 10.1 is enforceable, what are the potential effects for the parties under the ECC? The employer and contractor should be aware that, having agreed to co-operate, they may be prevented from taking any subsequent action which is inconsistent with the obligation to co-operate.

For example, a claim by the employer that the contractor has not notified it of a compensation event within the two week period specified by clause 61.3 or even a claim for delay damages under Option R (particularly where external circumstances make completion on or before the completion date difficult), may be incompatible with the employer's duty to act co-operatively. Does it follow that the effect of clause 10.1 is that, regardless of the allocation of risk for a given event, the party which does not bear the risk cannot just sit back and rely on clause 80 or 81 to absolve them of responsibility, but must actively take steps to reduce or minimise the risk to or effect of the risk on the other party so far as possible?

If so, the certainty which the provisions on risk (and indeed, arguably the other terms of the ECC) attempt to achieve may be diluted by the partnering clause. If the comments of Lloyd J. are followed by other courts, parties will not safely be able to ignore partnering agreements. Indeed, perhaps one could go so far as to suggest that logic would dictate that the interpretation of terms of a contract containing (or made in the context of) a partnering agreement would necessarily be different to the interpretation of those same terms where no partnering agreement existed. Otherwise what difference would the partnering agreement be making?

Conclusion

Birse has been remitted back to the Technology & Construction Court for a decision on the issues and perhaps something further on the enforceability and effect of partnering agreements will come out of this. Until then, what can potential partners under the ECC do about the potential uncertainties raised by clause 10.1?

If the partnering clause is not intended to be enforceable in the same way as the other contract

Over 160 attend Users' Group seminar

by Kelvin Hughes, Users' Group secretary

More than 160 NEC Users' Group members and guests assembled at the Institution of Civil Engineers in London on Monday 14 February 2000 for the highlight of the NEC year, the annual seminar.

The seminar promised to be a captivating major event bringing together world-wide users and prominent speakers presenting their experiences of NEC. Delegates were certainly not disappointed as contributors gave excellent presentations with ample opportunity for full discussion and debate on the issues raised.

ICE chief executive Mike Casebourne opened the proceedings with a keynote address confirming the Institution's support for the NEC and stressing its increasing use, importance and received mutual benefits within the construction industry.

Richard Bliss of London Underground, chairman of the Users' Group, then welcomed delegates to the event after which secretary Kelvin Hughes advised delegates of the increasing use of the NEC contracts and the recently enhanced benefits of Users' Group membership. Peter Higgins, chairman of the NEC panel then gave a short address informing delegates of the activities of a panel in the past year and also appealed for assistance, particularly in the panel's review of the schedule of cost components.

Haro Bedelian, recently appointed by the ICE to strengthen promotion of the NEC, then gave a short presentation of his promotional strategy including wider international use, increased government adoption, better NEC education starting at university and involvement of non users and non supporters of NEC events. He also said it was vitally important to understand and promote NEC as a project management process and for users to recognise its major strengths for partnering contracts.

Paul Fincham of Sainsbury's then presented the retailer's use of NEC contracts primarily under option F, the management contract. Sainsbury's had been using the NEC for a number of years as a first option, particularly in partnering agreements, which had led to significant benefits to all parties.

The water industry has made considerable use of the NEC, so John Williams of Yorkshire Water's address on the company's experiences in integrating

the full NEC family of contracts into its business was particularly topical and informative. John was ably supported by Rob Gerrard of Ove Arup and Richard Patterson of Mott MacDonald, who all gave a stimulating offering of their successful use of the contract since Yorkshire Water became one of the first NEC triallists on a project at Leeming Bar in 1991. The NEC is now used for all civil engineering contracts throughout the company's operations with tangible benefits for all involved.

It has been believed for some time that the NEC could lend itself more readily to information technology than other forms of contract and Barry Trebes of quantity surveyor Needleman capably demonstrated this with computerised applications they had developed and adopted since their first experience of using NEC in 1993.

Barry stated that one of the strengths of NEC is that it could be readily identified as a management process rather than just a form of contract and this enabled it to be well-supported by information technology resources.

The afternoon session began with a presentation by Gordon Heald, engineering manager with the Environment Agency's Anglian Region. The presentation was

entitled 'An equitable sharing of risk?' and Gordon gave an excellent illustration of the Environment Agency's experiences with the ECC contract used on a major project on the Lincolnshire coastline, which demonstrated effective use and lessons learned with target contracts under the ECC.

The final speaker of the day was Brian Eggleston, an experienced arbitrator & mediator, who gave a spirited and often controversial presentation on his experiences of adjudication under the NEC and specifically the issues that led to disputes and adjudication.

It is clear that the NEC is now being used widely throughout the construction industry with reports of major benefits to all. Successful events such as the annual seminar and the forthcoming workshop on 26 June 2000 provide an invaluable catalyst to even greater and wider adoption. ○

terms, this will need to be clarified, either by the parties amending the current version of the ECC or by the ICE when it produces the next version of the contract, for instance by expressly stating that the partnering obligations do not affect the parties' responsibilities and rights under the remainder of the contract.

If, however, the clause is intended to satisfy the recommendations in the Latham report for 'a specific duty for all parties to deal fairly with each other, and with their sub-contractors, specialists and suppliers in an atmosphere of mutual co-operation', it must be sufficiently certain. An agreement to hold meetings at defined intervals and to mitigate events which are at the other party's risk is more likely to be upheld than one to 'co-operate'.

As the construction industry increasingly engages in partnering, a variant of clause 10.1 is likely to be introduced into the other standard form contracts as

new versions are produced. The ECC leads the way in this respect, and so it is worth clarifying the enforceability of the partnering clause and its impact on the remainder of the contract terms. When version 3 of the contract is being considered, it is hoped that the ICE panel will address these issues.

For further information please contact Bob Maynard on +44 (0)20 7643 8031, email rmaynard@blg.co.uk ○

Notes

1. [1999] BLR 194, at first instance
2. (1998) CILL 1440
3. [1941] AC 251
4. North Eastern Railway v Hastings [1900] AC 260
5. EJR Lovelock v Exportles [1968] 1 Lloyd's Rep 163
6. Pagnan SpA v Tradax Ocean Transportation SA [1987] 2 Lloyd's Rep 342; Adamastos Shipping Co Ltd v Anglo-Saxon Petroleum Co Ltd [1959] AC 133

Seven principles

FOR EFFECTIVE COMMUNICATIONS UNDER THE ECC



Clause 13.1 of the Engineering and Construction Contract (ECC) states that any contractual communication has to be 'in a form which can be read, copied and recorded'.

Depending on the type of communication, it will also have to be communicated within a stated maximum time scale. This is because there is only one general statement in the contract of how the parties to it shall act: that is, they shall 'act as stated in this contract' (clause 10.1) with the 'who, when, what and why' for each action then being stated in the individual clauses of the contract. This, together with the emphasis on defining the project management process, means that the ECC is a very procedural contract in comparison with other contracts.⁵

The overall effect is that there tends to be much more communication during an NEC contract. Manage this communication badly and you may abandon the ECC as being too bureaucratic (as one client did). Manage this communication effectively (as to some extent most have) and, as one contractor's site agent commented, it allows you to spend twice as much time programming and working with the other party to reduce costs and time compared with writing long contractual letters to put the blame on the other party.

But what are the principles by which people have managed their communications?

First principle - Discuss and agree orally, confirm and summarise in writing

As one contract participant stated, 'notifications should just be merely backing up what you have agreed by talking to each other'. Why?

- Much more information can be communicated face to face in a less defensive manner with people proposing and developing ideas together. This does not rule out 'back of the envelope' sketches as ideas are developed. This means communication can be both more efficient (you get to the same result quicker) and / or more effective (you get a better outcome).
- If doing the above, then writing down precisely and succinctly what you think was agreed and showing it to the above person or persons, who confirms that that is what they thought was

agreed, reduces the potential for misunderstandings.

- Most of the communication should never be referred to again. However, the human mind tends to delete, distort or generalise information each time it is recalled. Therefore, what each party thought was agreed can tend to 'creep' over time. Having a written record to refer back to confirms what was actually agreed.
- Organisations need an audit trail both to satisfy their auditors and in the unfortunate case of dispute.

On most sites, this meant that what was agreed orally was backed up in writing as soon as the party giving the communication returned to the office. On one site, those involved carry a pad around so they can write it out there and then.

The principle also extends to those who have no contractual interface under the contract. For instance, there is nothing to stop subcontract designers going through their design with the employer's design consultants face to face, even though to be 'accepted' under the ECC, the design has to come up through the contractor, who passes it on the project manager, who in turn passes it on the consultant designers before the process is reversed.

Second principle - Create the right environment for oral communication

This can include such things as partnering workshops, team building exercises and social events. It can also include the layouts of the offices: for instance, if the parties have a joint office, more often than not, you go into the entrance lobby and turn left for the contractor and right for the employer (or vice versa).

There also seems to be an unwritten rule that your seniority is denoted by how far down the corridor you are. As a result, the most senior people are as far away from each other as possible! On some sites, the division has been along the corridor, with the project manager's office opposite the contractor's site agent; the supervisor opposite the chief engineer and the other engineers sharing the same offices. The quantity surveyors could not quite bring themselves to share the same offices though! This greatly helped oral communication and there was an understanding that if the door was shut, then the meeting was private.

Third principle - Develop a system of pro-formas for standard communications

This can consist of six basic forms ♦

- a contractor's notification sheet, with four classifications on it: early warning, alternative proposal, notification of possible compensation event and other

- a contractor's submission sheet, which is the facing sheet for the submission of drawings, programmes, compensation event quotations, and so on
- a project manager's instruction sheet, with three classifications on it: general instruction, instruction changing the works information and a proposal to change the works information
- a compensation event sheet, which confirms the time and cost effects of a compensation event and whether or not to proceed
- a supervisor's sheet for notifying the contractor that an inspection is to be done, the results of a test, to record the discovery of a defect or an instruction to search
- a contractor's sheet for notifying the supervisor that an inspection is to be done, the results of test, the discovery of a defect or the result of a search.

The pro-formas include tick boxes, are written in the present active style of the ECC and direct people to action. They should also state under which clause of the contract it is a communication, and they should reference previous relevant communication in order to create an audit trail should previous communications need to be referred to.

The system avoids writing long letters, with each party trying to include contractual terms to suggest or refute a later claim. Instead, where similar systems have been used participants noted that while more contractual communications were flying around during the contract, the total volume of paperwork was reduced, more agreed information was communicated and communication was more focused on the solution as opposed to being used to build the case for a claim as tends to happen on more traditional contracts.

Fourth principle - Have a logging system to keep track of communications

A procedure is needed to keep track of the various stages of communications and when a response is needed by. Failure to communicate within the time scales of the contract by the employer or its representatives is a compensation event, while failure by the contractor may result in a contractual sanction being imposed - for example the project manager assesses a compensation event.

On the majority of smaller contracts, the system can be a log kept in a book, while on some, it has been kept on a computer database. On one large contract, a full-time administrator was employed by both parties to keep track of communications and ensure each organisation responded within the time scales specified in the ECC.

One of these organisations has since developed a paperless software system specifically for managing ECC contracts¹.

Fifth principle - Extend the system to include those outside of the Project Manager, Supervisor and Contractor team

For instance, if the project manager needs a decision from the employer or designers, then not only do they need to be aware of the time scales of the contract, but the logging system needs to note when a response is needed from them for the project manager to respond within the time scales!

Likewise, if the contractor does not pass a communication down the contractual chain to a subcontractor in a timely manner or educate a subcontractor in the communication requirements of the contract, then the contractor may not be able to respond within the time scales of the main contract. This puts it at risk.

Sixth principle - Have regular 'wrap up' meetings

On one contract, partly to ensure that decisions were made on small items and partly to impose a discipline on his construction managers of agreeing things to a time scale, the project manager set up fortnightly meetings to clear minor early warnings, technical queries and compensation events in addition to the normal progress, quality and safety meetings.

He would not let them come out until the matter

had been resolved or a time scale for their resolution was in place. This was to avoid the minor niggly things being put off until they became urgent. The author is aware that this employer has subsequently written a procedure into the contract to make these 'wrap-up' meetings a contractual obligation.

Seventh principle - Have the above in place at the start of the contract

On a number of sites, personnel admitted that with hindsight they had not given the above issues enough consideration prior to work commencing on site. They were therefore having to put them in place rapidly and without due consideration, which often resulted in later modification.

An example of this is where a new pro-forma was developed each time a new contractual communication was occurred. As a result, this employer had 38 standard pro-formas! The time spent putting in place these systems can affect the management of the physical work.

In the words of one project manager, under an ECC contract, 'you need to hit the ground with your feet running, because where you get hit hardest is in the early stages'.

None of the above principles are anything but com-

mon sense pointed out. It is therefore common sense to implement them. Those that have, have found the administrative workload much reduced and co-operation increased allowing them to concentrate on reducing time and costs for all parties benefit.

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Notes

- § The fact that the drafting of contracts was an iterative process with the development of the flow charts shows this. It has also been argued that other contracts focus on defining the outcome for any given circumstance ignoring the parties objectives, project circumstances² and process.
- ◆ For the full pro-formas, see the author's book³. However, these should be used as a starting point and be developed for individual company and project circumstances.

References

1. Presentation by Needleman's Quantity Surveyors at the NEC User's Group Seminar, 14 February 2000.
2. Jackson R (1986), *Are Standard Forms of Contract a Good or Bad Thing*, Arbitration, November 1986.
3. Broome J C (1999), *The NEC Engineering and Construction Contract : A User's Guide*, London : Thomas Telford Publishing.

Managing risk with NEC

by Phil Doherty, FRICS, and James Wood, MICE, cost services manager and principal engineer, Earth Tech Engineering Ltd.



A good contract manages the allocation of risk between the respective parties – and within the construction industry we have seen the awareness of and management of risk change dramatically over the last decade.

The 'construction' risks of 'unforeseen' conditions, obstructions and weather are being increasingly augmented by those posed by restricted capital programme budgets, established supply chains, absolute certainty of price, performance guarantees and indemnities, fitness for purpose and statutory consents.

There are clear signs that the culture of the adversarial contractual approach is being replaced by more collaborative management and contractual styles with the expectation that the contractor takes on ownership of wider 'risk' responsibilities within a teamwork approach.

Keeping clients satisfied

Past conditions of contract seem to have been written on the assumption that the role of a contractor was defined narrowly in terms of to day's expectations putting many of these risks way beyond the ability of the standard contract terms. There is a now a pressing need for contractors and consultants to appreciate the greater requirements of clients and how the radical flexibility of the NEC can be utilised. Managing the demanding risks expected by progressive businesses is, we believe, the NEC's 'forte'.

Construction clients have ever-increasing shareholder, regulatory and quality improvement pressures and are fully attuned to the impact on their business success of high 'value-added' and efficient capital procurement arrangements. They are running their businesses using comprehensive risk management

right down the capital works supply chain and need to be using contract conditions that allow effective risk decision making to happen and to be transparent.

If the risk management process is unclear, a corporate grip cannot be maintained on the risk contingency funds needed to oil construction's wheels - and inefficiencies and disputes increase.

Whether a qualitative or quantitative approach to risk management is taken, modern programme managers should appreciate how the NEC and its advocacy of high quality project management techniques mitigates risks in the execution of construction projects. The key elements of the NEC that enable this are modest in isolation, but together add up to big outcomes

- flexibility - which encourages amendment or extension to suit individual application
- clarity - of language and style which highlights risk provisions
- proactive - management of time and cost to reduce uncertainty of outcomes
- co-operation - and responsibility to minimise 'check' and 'dispute' supervisory costs
- risk management - techniques to produce the optimum result.

Facilitating the transfer of design risk into the contract, the NEC form's flexibility has allowed the introduction of works information and performance schedules derived from extensive application of ICEmE 'green' and 'red' book contracts used since the mid-1980s to bring 'turnkey' solutions into a largely ICE/G90 arena.

A high-performance contract

The NEC's suitability for civil construction risk is an added benefit, as is the 'co-operative' requirement and balanced ethos identified as needed by Latham. We now clearly see the main 'genre' to be performance-based contracts where contract preparation, management and site supervision costs have fallen by 25% to date, and aggressive monitoring of performance in terms of project processes (such as health & safety) and outcomes using key performance indicators (KPIs) has shown real continual improvement.

Just as significantly the 'claims cabin' seems to have disappeared from the standard site establishment kit and the norm is now shared accommodation, shared office systems and shared records. Who would go back now?

Latham and Egan have graphically described the risks facing the construction industry if we fail to take on board our role in managing the business risks of our clients. The increasingly commercially aggressive regulatory and market conditions in which our clients have to survive makes it even more important that we have the right contractual tools to help their businesses survive and prosper.

The NEC is without doubt one of these tools and it is now clear that experienced practitioners know how to use it to achieve success in today's world of KPIs, bench marking, continual improvement and risk management.

For further information please call James Wood on +44 (0)1226 224235, email james_wood@earthtech.co.uk ○

Update on Users' Group activities

by Rekha Thawrani, NEC coordinator

As can be seen from the adjacent list, the relaunched NEC Users' Group has grown to 111 members compared to just 60 in July last year.

All members are now able to take advantage of free places and discounts offered to them under their gold, silver or bronze memberships at all events organised by the Users' Group. Gold members also benefit from a free half-day in-house presentation. There are currently 16 gold, 64 silver and 31 bronze members.

The workshop in November last year proved to be an excellent day with over 60 delegates attending. The feedback questionnaire indicated that members would like to see it held two to three times a year, so the next is scheduled for 26 June 2000 (see above). Over 160 members and non-members also attended the annual seminar in February (see report on page 5).

The redesigned newsletter has been well-received and the newly launched web-site at www.t-telford.co.uk/nec is proving increasingly popular, getting over 2000 hits a month.

However, the Group's success is primarily dependent on the involvement of its members. I would thus like to take this opportunity to thank all members who have contributed to the newsletters, workshop events and the recent seminar, and who have mentioned the NEC when announcing new project details.

I look forward to meeting you all at the next workshop.

NEC Users' Group workshop

26 JUNE 2000

The next Users' Group workshop will take place on Monday 26 June at the Institution of Civil Engineers in London.

Topics covered will include all aspects of NEC use, with an opportunity to exchange experiences, practical advice and guidance with other users from all sectors of the industry.

NEC coordinator Rekha Thawrani will shortly be writing to the members of the Users' Group for their input into the content of the workshop. The most popular topics chosen by the users will form the basis of the programme for the day.

NECDIARY

Date	Event	Venue
3 May	ECC introductory training course	Bristol
18 May	ECC compensation events training course	Ascot
18 May	ECC pre-contract workshop	Falkirk
22-25 May	NEC at Civils 2000	NEC Birmingham
20 June	ECC pre-contract workshop	Altrincham
26 June	NEC workshop	London
28 June	Professional Services and Adjudicators Contracts training course	Watford
6 July	ECC introductory training course	Birmingham
11 July	ECC post-contract training course	Altrincham
13 July	Short Contract training course	Birmingham
2 August	ECC introductory training course	Ascot
21 September	Short Contract training course	Ascot
27 September	ECC introductory training course	Falkirk
28 September	ECC post-contract training course	Falkirk
10 October	Short Contract training course	Falkirk
11 October	ECC introductory training course	Altrincham
12 October	ECC pre-contract workshop	Birmingham
1 November	ECC introductory training course	Ascot
6 November	ECC compensation events training course	Altrincham
8 November	ECC post-contract training course	Ascot
5 December	Professional Services and Adjudicators Contracts training course	Watford
6 December	ECC pre-contract training course	Ascot

For further details of courses, please see the Thomas Telford web site at www.t-telford.co.uk or contact Diane Lewis on +44(0)20 7665 2457

Users' Group reaches 111 members

New members shown in bold

A B Rhead & Associate Limited	Gleeds
AEA Technology plc	Halcrow Group Limited
AMEC Civil Engineering Ltd	Hannah Reed and Associates Ltd
Amec Utilities Ltd	Hanson Construction Projects
Anglian Water Services Ltd	Harbour & General Works Limited
Ashridge Construction Limited	K Home Engineering Ltd
Associated Holdings Ltd	Kirkham Board Associates
Atkinson Peck Consulting Engineers	Laing Limited
BAA plc	Lancashire County Council,
Balfour Beatty Major Projects – Rail Link	Lincolnshire County Council
Barton Plant Ltd	London Underground Limited
Bayfield Associates	London Underground Limited – Crossrail Projects
Berkeley M.S. Ltd	Lovell White Durrant
BG TransCo Plc	M J Gleeson Group Plc
Bird Semple, Solicitors	Mansell plc
Birse Construction Limited	Masons Solicitors
BNFL Engineering Limited	Miller Civil Engineering Ltd
Breach Associates	MK International Ltd
British Waterways	Montgomery Watson Ltd
Cammell Laird (Tyneside)	Morrison Construction Ltd
Carillion Plc	Mott MacDonald
Chandler KBS (OS)	Mouchel Consulting Ltd
Circle Thirty Three Housing Trust Ltd	National Power plc
City of Glasgow Council	Needlemans Ltd
Comhairle Nan Eilean Siar	Nigen Kilroot Power Limited
Contracts Consultancy Limited	North Lincolnshire Council
Cornwall County Council	One North East
Currie & Brown	Oval (717) Ltd
Cyril Sweett Limited	Ove Arup & Partners
D H Simper & Associates	Pell Frischmann Consultants Ltd
Dean and Dyball Construction Limited	Peter Brett Associates
Debevoise & Plimpton Solicitors	Railtrack
Department for International Development (DFID)	Rock DCM
Department for Regional Development Roads Service	Roger Lewendon Assoc.
DOE (NI)Water Service	Royal Hong Kong Jockey Club
Doig & Smith	Sainsbury's Supermarkets Ltd
Doncaster Metropolitan Borough Council	Shawwater Limited
Earth Tech Engineering	Shepherd Construction Ltd
EC Harris	South African NEC Users Group Association
Edmund Nuttall Limited – Newcastle upon Tyne	Staffordshire Engineering Consultants
Edmund Nuttall Ltd - Camberley	Suffolk Waste Disposal Co. Ltd
Electricity Supply Board	Symonds Travers Morgan
Emirates Telecommunications Corporation	The Nottingham Trent University
Environment Agency – Cheshire	TPS Consult
Environment Agency – Peterborough	Trett Consulting
Ernest J Bayton	UK Nirex Ltd
ESKOM	UKAEA
Faithful & Gould	Union Railways Limited
Forsters	University of Hong Kong
Forward Consult Limited	W S Atkins
Frank Griffiths Associates Limited	Walter Lawrence Civil & Mechanical Limited
Franklin & Andrews	Webfell Group Limited
Galliford Northern	West Lothian Council
GDG Management Ltd	Wheeler Group Consultancy
	Wiggins Gee Construction Ltd
	Wrekin Construction Ltd
	Yorkshire Water Services Ltd

Constructive contributions to the newsletter are always welcomed and should be addressed to the editor Simon Fullalove at Thomas Telford Limited, 1 Heron Quay, London E14 4JD, telephone +44 (0)20 7665 2448, fax +44 (0)20 7538 9620, e-mail fullalove_s@ice.org.uk. The current issue of the newsletter is also available on the NCE web site at www.t-telford.co.uk/nec. All other enquires should be made to the NEC coordinator Rekha Thawrani, telephone +44 (0) 7665 2446, fax +44 (0)20 7538 2847, e-mail thawrani_r@ice.org.uk. ○