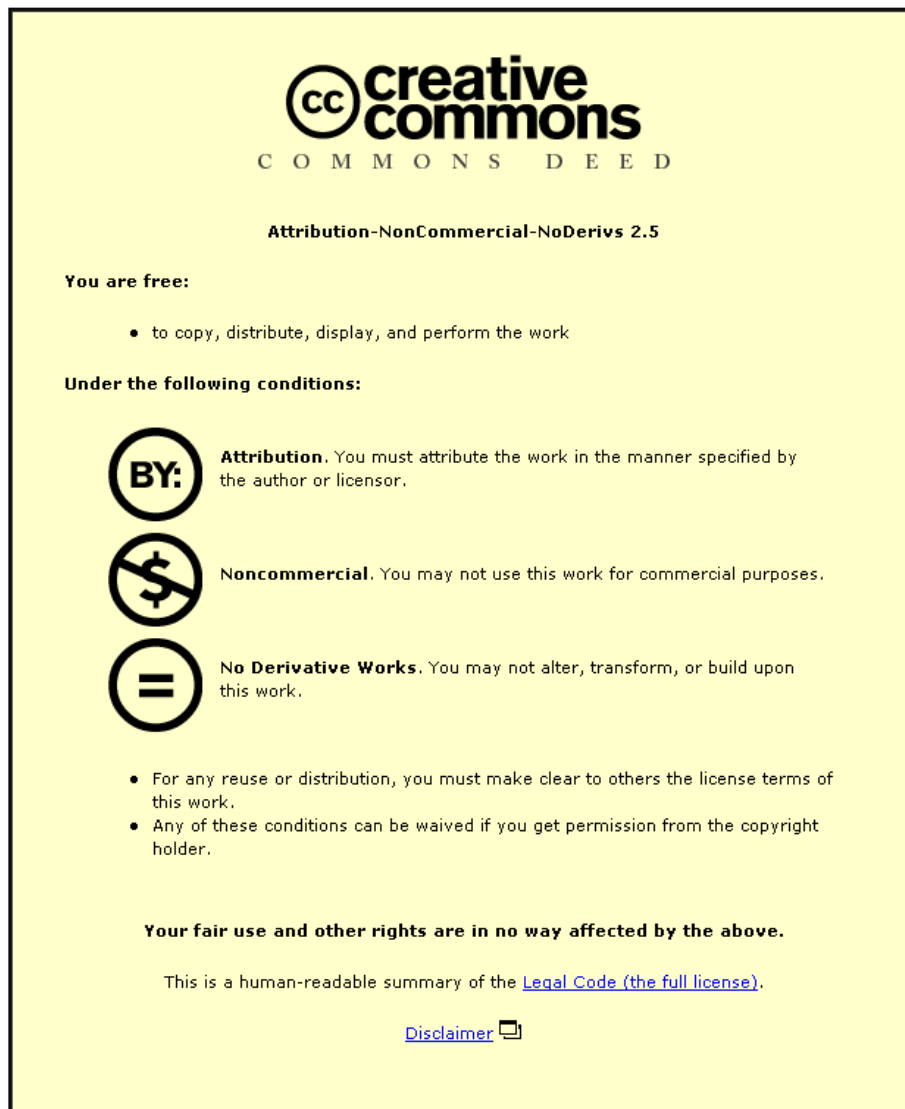


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## **TOWARDS A MODERN CONSTRUCTION CONTRACT: PARALLEL DEVELOPMENTS IN THE UK AND CHINA**

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### **ABSTRACT**

Disputes arise because of the opposition of interests, values or objectives when parties perceive that these are incompatible. In the construction industry, these differences in interests and objectives are illustrated by the multi-parties involvement in the project development process. These inherent potential conflicts are ideal for disputes to flourish and can be caused by poor communication and a lack of trust in the relationship between the parties. Most disputes arise out of the contract. The purpose of contract law is to formalise transactions. Contract planning accommodates this mechanism for dispute resolution and is viewed as a means of ‘gap-filling’ in the neo-classical contract system. The choice and form of contract can play a significant role in the governance of relationships between parties to a contract. Two processes are essential to contract planning, namely, defining goals (along with related costs of their attainment) and communication. It is suggested in the Latham Report of 1994, entitled “Constructing the Team” in the UK, that the construction industry should embrace a “Modern Contract”. The New Engineering Contract (“NEC”) is widely believed to include virtually all the principles of such a contract. This paper sets out the principle ingredients and changes made since Latham 1994 to demonstrate whether or not the NEC is truly compliant. This paper also reviews the parallel progress towards a modern contract in China, comparing such progress being made on the Chinese Model Contract with that of NEC. This paper also briefly identifies that steps are being taken to avoid adversarial standard forms of contract but, perhaps more importantly, touches on a common desire for culture change in the management of construction projects and may result in convergence between China and the UK.

**Keywords:** disputes, contract, culture change

## **INTRODUCTION**

Construction contracts in the UK have been procured, in the main, using standard forms of contract prepared by various contract drafting bodies. The placing and management of contracts within the UK construction industry have been the subject of a number of government reports over the last 70 years. Regular suggestions and comments were made within the various reports calling for culture change away from adversarial relationships towards more cohesion and more recently towards an integrated team. The mechanism of the contract can play a significant role in the formation and culture of relationships. Sir Michael Latham set out in his 1994 landmark report "Constructing the Team", Latham (1994) what he believed were ingredients towards a Modern Contract for construction. The 1<sup>st</sup> Edition of the New Engineering Contract, The Institution of Civil Engineers (1993) was acclaimed as containing virtually all the necessary ingredients for such a Modern Contract. Other standard forms of contract are still in use in the UK but the 3<sup>rd</sup> Edition of the New Engineering Contract, renamed as the Engineering and Construction Contract, NEC (2005) contract was reviewed for the purposes of this paper to identify how it complies with the ingredients of a Modern Contract on a clause by clause, requirement by requirement basis.

The first signs in China that a model construction was required to regulate the activities of contracting parties in the Chinese construction market arose out of the transition towards a market economy in the 1980's. The first edition of the Model Construction Contract (GF-91-0201) was issued jointly by the Ministry of Construction ("MOC") and the China State Industry and Commerce Administration. Updated editions followed in 1999 (GF-99-0201) and in 2003 (GF-2003-0201) to adapt to changes in the construction market and the enactment of relevant laws. Encouraged by the need to integrate contract documentation across all ministries and administrations involved in construction the latest edition (GF-2007-0201) was released in 2007. The content and form of the above editions of the Chinese Model Construction Contract were analysed to show how the form has developed.

## **TOWARDS A MODERN CONSTRUCTION CONTRACT IN THE UK - THE LATHAM RECOMMENDATIONS**

The first major broad based report into construction in the UK was in 1944. This report, Simon (1944), looked into the placing and management of contracts focusing mainly on procurement routes and labour. Emmerson (1962) reported a lack of cohesion between all parties to a construction contract. Emmerson (1962) also urged consideration being given to "the possibility of adopting a common form of contract for both civil and building engineering work". Further suggestion was made that the standardization should also apply to subcontracts.

Banwell (1964) iterated that the most urgent problem with the construction industry was the "necessity of thinking and acting as a whole" with attitudes and procedures needing to change but also suggesting that such changes would be "of no avail until those engaged in the industry themselves think and act together". The changes to practice and procedure included a limited aim "first step" towards a common form of contract for building and a common form for civil engineering. Once this first step had been achieved, which, the report also argued required goodwill to do so, a final step should be taken to "agree a joint form for building and civil engineering conditions of contract.". The report also expressed strongly that the "tendency of some contracting firms to seek to impose their own form of subcontract" was not conducive to efficiency and mutual cooperation and that discussions on revising and unifying the subcontract conditions should proceed concurrently with main contract discussions.

Latham (1993) focused on the relationship between "Trust and Money" and was largely concerned with the interaction between the main contractor and the subcontractor. The report highlighted that contractors tended to create and impose "tailor made" contracts with the effect of stepping down onerous liabilities onto the subcontractor and permitting unfair practices. Latham (1993) also called for agreed subcontract terms amongst the contract writing bodies and mandatory use of them unamended.

Latham (1994) expressed the continuing concern at the proliferation of standard forms being used in the industry and the problems associated with them. The report went on to suggest that one of the options of dealing with the associated problems could be to “try to define what a modern construction contract ought to contain” and then either amend the standard forms to include the requirements or to introduce a new contract. Latham (1994:37) listed 13 requirements for a most effective form of contract in modern conditions – A Modern Contract. The report also went on to suggest that the recently produced 1<sup>st</sup> Edition of the New Engineering Contract, The Institution of Civil Engineers (1993) was the closest standard form of contract “containing virtually all these assumptions of best practice” Latham (1994:39). To facilitate full compliance with the principles of a Modern Contract, the report recommended 7 specific recommendations to the New Engineering Contract Latham (1994:39,40). At that time, the New Engineering Contract was only in its first edition. The second edition was issued in 1995, The Institution of Civil Engineers (1995) following publication of the Latham report, Latham (1994). A further edition was issued in 2005 and renamed The Engineering and Construction Contract but commonly referred to as NEC3, NEC (2005).

Egan (1998) identified five key drivers for change including “integrated processes and teams”. One of the enablers of improvement was identified as being substantial changes in the culture and structure of UK construction that would affect the “relationships between companies”. Egan (2003) reporting on progress since 1998, stated that the UK Office of Government Commerce (“OGC”) recommended integration of the project team as an enabler of change with the proposal from the OGC of the adoption of forms of contract that encourage such team integration. Egan (2003) also indicated the delivery of the vision for integration required collaboration between the various players in the construction industry including the legal profession and contract writing bodies in order to prevent an adversarial approach.

This section of the paper sets out the requirements for a Modern Contract cited in Latham (1994:37) and compares them with the findings of the authors’ review of the NEC3 contract.

### **Requirement 1 – duty of fair dealing with all parties**

“A specific duty for all parties to deal fairly with each other, and with their subcontractors, specialists and suppliers, in an atmosphere of mutual co-operation” Latham (1994:37). Specific changes to the NEC, The Institution of Civil Engineers (1993) to include this duty were recommended to Core Clause 1 and to the Core Clauses in the Subcontract, The Institution of Civil Engineers (1993) with a further recommendation that the subcontractors and suppliers be treated in a similar atmosphere, Latham (1994:39). As part of that fair dealing principle, it was also recommended that express provision be made to ensure none of the Core Clauses could be amended by either party to the contract, Latham (1994:39). It was also suggested that an NEC form of contract be utilized for subcontracts.

Core Clause 1 was amended to include a specific obligation on all parties named in this clause to act “in a spirit of mutual trust and co-operation.”. Core Clause 1 of the Subcontract was similarly amended.

In respect of the Contractor being required to act in a similar way with his subcontractors, specialists and suppliers the Contractor is required to submit the proposed conditions of contract for each of the subcontractors to the Project Manager for acceptance unless an NEC contract is proposed (see core clause 26.3). In the absence of subcontracting under an NEC contract and the Contractor submits proposed subcontract conditions that do not contain any requirement to “act in a spirit of mutual trust and cooperation” the Project Manager can use that as a reason for non-acceptance (see core clause 26.3). Thus true compliance with the specific recommendation that subcontracting on an NEC form should be mandatory cannot be demonstrated. At best the position is highly persuasive and will, to a greater extent, depend upon the exercise of discretion by the Project Manager whether to accept an alternative form of subcontract or not.

There are no express provisions preventing the parties from amending any of the Core Clauses. In essence, this would be difficult to achieve as the parties could be considered largely free to negotiate the final contract terms.

## **Requirement 2 – teamwork and win-win solutions**

“Firm duties of teamwork, with shared financial motivation to pursue those objectives. These should involve a general presumption to achieve “win- win” solutions to problems which may arise during the course of the project Latham (1994:37)”. A specific recommendation was made that Core Clause 16.3 should be strengthened to give effect to this principle of such solutions being devised in a spirit of partnership Latham (1994:39).

The introduction of a Risk Register (see Core Clause 11.2), comprising a list of the risks set out in the Contract Data and those which the Project Manager or the Contractor have notified during the currency of contract as an early warning matter assists the parties to share in problem solving. The Risk Register is reviewed at risk reduction meetings where, amongst others, the parties who attend will cooperate in “seeking solutions that will bring advantage to all those who will be affected” (see core clause 16.3).

## **Requirement 3 – integrated package of documents**

“A wholly interrelated package of documents which clearly defines the roles and duties of all involved, and which is suitable for all types of project and for any procurement route.”, Latham (1994:37). The NEC contract required specific amendment to include a full matrix of consultants’ and adjudicators’ terms of appointment interlocked with the main contract, Latham (1994:40). It was also suggested that standard tender documents and bonds would be desirable, Latham (1994:40).

Different types of project and procurement routes are catered for. In addition to simply providing the Works, the Employer states which parts of the Works the Contractor is to design (see Core Clause 21.1). Further flexibility is introduced by selection from one of 6 Main Option Clauses (A to F) covering: lump sum pricing through either activity schedules or a traditional bill of quantities; target cost pricing again through the use of either activity schedules or bill of quantities; cost reimbursement or; under a management contract.

The roles and responsibilities of all parties to the contract are clearly set out including those of the Employer, the Project Manager, the Supervisor and the Contractor. Whilst the Contractor’s main responsibilities are set out in Core Clause 2 other responsibilities are set out for the Contractor and the other parties at strategic locations throughout the contract.

The NEC3 suite of contracts include the: Professional Services Contract to engage or appoint consultants, NEC (2005); Engineering and Construction Subcontract and the Short Subcontract to engage or appoint subcontractors, NEC (2005); and the Adjudicator’s Contract to engage the Adjudicator, NEC (2005).

Standard tender documents are provided in the form of a Sample Form of Tender in Appendix 2 and a Sample form of Agreement in Appendix 3 of the Guidance Notes to the Engineering and Construction Contract, NEC (2005). Sample forms of bonds or guarantees are not included and the parties remain free to negotiate and agree their own terms.

## **Requirement 4 – simple language and guidance notes**

“Easily comprehensible language and with Guidance Notes attached.”, Latham (1994:37).

One of the original drafting aims of the NEC contract was that it should be in ordinary language thereby being a model of “clarity and simplicity”. This would have the benefit of making it easier to understand by people who are not used to formal contracts and by people whose first language is not English. The Engineering and Construction Contract, Guidance Notes indicate that its use of ordinary language would also make it easier to translate into

other languages, NEC (2005). It is understood that the 2<sup>nd</sup> Editions of the Engineering and Construction Contract and the Professional Services Contract, The Institution of Civil Engineers (1995) have already been translated into Mandarin with plans in hand to do so with the latest edition.

Guidance Notes and Flowcharts have been produced for all the documents in the NEC3 package apart from the Subcontract and the Short Subcontract, NEC (2005).

### **Requirement 5 – role separation**

“Separation of the roles of contract administrator, project or lead manager and adjudicator. The Project or lead Manager should be clearly defined as client's representative.”, Latham (1994:37).

The roles of the Project Manager and Adjudicator are clearly separated. The Project Manager is appointed by the Employer and his identity notified to the Contractor by an appropriate entry in the Contract Data. The Employer may replace the Project Manager by notifying the Contractor of the name of the replacement (see core clause 14.4). The Project Manager whilst being the principal point of contact with the Contractor under the contract and being able to give instructions, acceptances, issue certificates, assess amounts due for work done to date including assessment of Compensation Events amongst others, Eggleston (2006) notes the Project Manager has no express requirement to act impartially nor to act in the interests of the Employer citing the English case of Costain Ltd and Others v Bechtel Ltd 2005, Eggleston (2006:89).

The Adjudicator can be named in the Contract Data. There appears to be an obvious intention that the role of the Project Manager and Adjudicator be separated as the Adjudicator has jurisdiction to resolve disputes which may involve an action or inaction of the Project Manager or the Project Manager's assessment of a Compensation Event as set out in the Adjudication Table at main Option W1, NEC (2005).

### **Requirement 6 – risk allocation**

“A choice of allocation of risks, to be decided as appropriate to each project but then allocated to the party best able to manage, estimate and carry the risk.”, Latham (1994:37).

The base position in terms of risk allocation is set out in Core Clause 80.1. Within this clause the Employer's risks are clearly set out and, by the provision of Core Clause 81.1 all other risks are carried by the Contractor. If there are additional risks taken on by the Employer these would be set out in the Contract Data Part 1 as being “included in the Risk Register”, NEC (2005). If any of the Employer base risks are taken on by the Contractor or further risks identified as being best managed by the Contractor, these could appear as amended or additional clauses under Option Z.

Whoever carries the risk, whether they be allocated 100% to one of the parties or shared on a proportionate basis between the parties, the risks would be included in the Risk Register for regular discussion and solution until they can be removed from the register.

### **Requirement 7 – variations**

“Taking all reasonable steps to avoid changes to pre-planned works information. But, where variations do occur, they should be priced in advance, with provision for independent adjudication if agreement cannot be reached.”, Latham (1994:37).

The NEC3 contract envisages the pre-planned Works Information being as complete as possible. Nevertheless the contract also envisages changes being made to the Works Information by instruction from or a change in an earlier decision by the Project Manager (Core Clause 60.1 (1)). The contract also provides for the Contractor to submit quotations so that the Project Manager and the Contractor are fully aware before the instruction is

implemented of its effect on time and the cost of the works (Core Clause 61.1). There is also further provision for further discussion in order to identify different ways of dealing with or implementing such changes to the Works Information and for submission of alternative quotations (Core Clause 62.1). It is to be noted that any event giving rise to cost and/or time implications of the project is identified as a Compensation Event as opposed to a claim for an extension of time or money (Core Clauses 60 to 65 inclusive).

If there is a dispute on the assessment of the time and/or cost attributed to a Compensation Event the contract provides a mechanism for independent adjudication. This is invoked by incorporating Main Option Clause W1 outside the UK or by Main Option Clause W2 within the UK.

#### **Requirement 8 – mechanisms for assessing interim payments**

“Express provision for assessing interim payments by methods other than monthly valuation i.e. milestones, activity schedules or payment schedules. Such arrangements must also be reflected in the related subcontract documentation. The eventual aim should be to phase out the traditional system of monthly measurement or re-measurement but meanwhile provision should still be made for it.”, Latham (1994:37).

The process for interim payments is initiated by assessing the amount due to be paid from the Employer to the Contractor periodically during the contract. The period being governed by the pre-agreed “assessment interval” (Core Clause 50.1) set out in the Contract Data part 1 provided by the Employer. With the assessment interval stipulated as being no longer than 5 weeks, it is expected that the traditional approach of monthly valuations is likely to be followed especially if Main Options B and D are used. A slight departure from the traditional approach is available if Main Options A and C are used which incorporate valuing by use of activity schedules but again, the period is likely to retain the monthly cycle. Whichever Main Option is selected, the Project Manager assesses the Price for Work Done to date.

The Subcontract documentation and the Professional Services Contract follow similar procedures to the main contract.

No provision appears to have been made to allow payment methods using milestones or payment schedules.

#### **Requirement 9 – payments**

“Clearly setting out the period within which interim payments must be made to all participants in the process, failing which they will have an automatic right to compensation, involving payment of interest at a sufficiently heavy rate to deter slow payment.”, Latham (1994:37).

The timetable for payments under Core Clause 51 proceeds from the assessment process set out in Core Clause 50. Essentially, the Project Manager is required to provide a certificate of the amount to be paid within one week of the assessment date which occurs at the end of each assessment interval. The Employer is then normally required to pay the certified amount within three weeks of the assessment date. The three week payment period following certification can be amended by changes to the Contract Data.

Payments made late (whether they arise by a failure or delay by the Project Manager to certify or the Employer simply failing to pay on time) attract interest at the pre-agreed rate set out in the Contract Data Part 1 and calculated on a daily basis with interest being compounded each year, Core Clause 51.2 and 51.4.

The net effect of the assessment and payment provisions under Core Clauses 50 and 51 is that the Contractor is normally expected to be paid no later than 8 weeks after carrying out the work.

## **Requirement 10 – trust funds**

“Providing for secure trust fund routes of payment.”, Latham (1994:37). Also a specific recommendation for the NEC contract suggested it should be included “as a Core Clause” with further recommendations that the trust fund should be arranged “into which the client deposits payments for each milestone, activity schedule or interim payment period before the commencement of the relevant period.” with the perceived benefits of providing greater confidence for contractors and subcontractors, Latham (1994:39).

NEC2 included an Option clause V which permitted the setting up of a trust fund to meet the needs of this clause with sample Trust Fund documentation and a sample Trust Deed being included in Appendix 7 of the Guidance Notes to NEC2, The Institution of Civil Engineers (1995). Perhaps due to the lack of take up of this particular option, the provision for a trust fund disappeared following the drafting of NEC3 in 2005.

With the enactment and implementation of the Office of Government Commerce Model “Fair Payment Charter” in 2007, the NEC drafting committee responded by producing an Option Z clause to allow users to implement the fair payment practices into NEC contracts which included the creation of a Project Bank Account with beneficiaries of the Account being designated by execution of a Trust Deed and subsequently a Joining Deed, NEC (2007).

## **Requirement 11 – speedy dispute resolution**

“While taking all possible steps to avoid conflict on site, providing for speedy dispute resolution if any conflict arises, by a pre-determined impartial adjudicator/referee/expert.”, Latham (1994:37).

“The adjudication procedures [for NEC] may need some amendment to bring them within the principles of Chapter 9 of this Report.”, Latham (1994:39)

Steps have been introduced to avoid conflict on site by the introduction of a Risk Register with regular reviews and discussions taking place at risk reduction meetings. Parties attend the risk reduction meetings with the aims set out in Core Clause 16.3 which include how risks can be avoided or reduced, seeking solutions to the advantage of all affected, what actions should be taken and by whom and to update the Risk Register itself with the aims set out in Core Clause 16.3.

If any disputes arise, the contract provides a mechanism for independent adjudication. This is invoked by incorporating Main Option Clause W1 outside the UK or by Main Option Clause W2 within the UK. The timetable for a decision from the independent and impartial Adjudicator after having received notice of the dispute from either party is speedy and normally within four weeks under Main Option Clause W1.3 or W2.3 (8). Main Option clause W2.3 (8) permits the decision period to be extended but by no more than 14 days.

## **Requirement 12 – incentives**

“Providing for incentives for exceptional performance.”, Latham (1994:37)

The use of Target Pricing under Secondary Options C and D could encourage good performance and, provided the pain/gain share is appropriate would therefore provide incentives for exceptional performance. Further incentives may be implemented by the use of Key Performance Indicators (“KPI’s”). KPI’s are an integral part of Secondary Option X12 where the parties to the project have chosen this Partnering Option. Where the Partnering Option is not used, Secondary Option X20 can be used to invoke a pre agreed Incentive Schedule where the Contractor is paid a stated amount if a particular KPI is achieved or exceeded.

Bonuses can also be won for early completion of the works if Secondary Option X6 is used.



### **Requirement 13 – advanced mobilisation**

“Making provision where appropriate for advance mobilisation payments (if necessary, bonded) to contractors and subcontractors, including in respect of offsite prefabricated materials provided by part of the construction team.”, Latham (1994:37).

The Employer can agree to make an advanced payment (including for mobilisation purposes) by invoking Secondary Option X13. The Employer then sets out in the Contract Data how the advanced payment is to be made by inclusion of the stated instalments to be included in the amounts assessed to be due to the Contractor until the advanced payment is repaid.

### **NEC Specific Requirements**

The Latham report set out some specific alterations to the NEC form of contract, Latham (1994:39,40) and, where they are not mentioned above, are set out as follows:

#### ***name change***

“Its name should be changed, since it can equally be used for building projects. I suggest the ‘New Construction Contract’.”, Latham (1994:39)

The Guidance Notes indicate that the name of the contract was changed from the New Engineering Contract to the New Engineering and Construction Contract to reflect the fact that it was intended to apply also to construction works, NEC (2005).

#### ***payment cycle***

“Subcontractors have expressed concern about the potential length of payment times under the NEC procedures, these concerns are set out in Table 6 prepared by the SECG.....I recommend however that the payment periods be reviewed in conjunction with clients, contractors and subcontractors. This may allow for agreement on an alternative timescale which is acceptable to all.”, Latham (1994:39)

The NEC drafting committee took on some of the concerns with the payment cycle by reducing the time periods between assessment, certification and payment by the Contractor to the Subcontractor. Under Core Clauses 50 and 51 of the NEC3 Subcontract, the certification and payment dates fall one week behind similar dates in the main contract. The net effect is that the expected timetable for payment for the Subcontractor is no later than 9 weeks after completing relevant work, one week longer than the Contractor.

#### ***minor works***

“Provision should be made for a simpler and shorter minor works document.”, Latham (1994:40)

The first edition of the NEC Engineering and Construction Short Contract was published in 1999 with the second edition being issued in 2005 subject to reprint in 2007. This contract is an alternative form of contract for use for straightforward work with low risks to the parties and not requiring sophisticated management techniques. The contract conditions themselves are written in the same language and style of the main form of contract but with significantly reduced content (i.e. 12 pages down from nearly 60 pages), NEC (2005).

## **THE DEVELOPMENT OF A MODEL CONSTRUCTION CONTRACT IN CHINA**

Before 1990s, although China began to introduce a free market economy to the previous “planned economy” the formal relationship between the contracting parties in such a mixed economy was still largely governed by the “administration relationship”. The parties looked to their “working relationship” and not to the contract. For the *Yifang* (construction

enterprises/contractor), the motivation to become efficient and/or to turn a profit was hindered by the fact that losses were reimbursed by and profit was returned to the government or *Jiafang* (the project investor/employer).

The contract eventually signed by the two parties could be only few pages or even limited to a single page which was simply put aside or locked in a safe throughout and after execution. Over time, effected by further economic reform and open policy, the planned economy gave way to market economy and the construction enterprises began to find themselves having to act as businesses with financial responsibility for themselves.

### **Rationale behind the 1<sup>st</sup> edition of the Chinese Model Contract (GF-91-0201)**

In the late 1980s, the need arose for formalization of the contractual relationship in the construction market so in 1991, the Ministry of Construction ("MOC"), in conjunction with the China State Industry and Commerce Administration issued China's first model construction contract (GF-91-0201, the "91 version"). The form was prepared by MOC officials with advice from construction management professionals. The 91 Version was divided into two parts encompassing the Contract Conditions and Negotiable Clauses. The Contract Conditions were further subdivided into 41 clauses categorized into the following 10 sections: definitions and documents; general responsibilities; construction site organization and method statement; quality control and acceptance; contract price and payment; supply of materials and equipment; variation; completion and final payment, dispute resolution; default and claim, and others. The Negotiable Clauses were blank clauses that were left to be completed by the two parties upon agreement through negotiation. The release of such a model construction contract was also an answer to the call by the China State Industry and Commerce Administration towards the standardization of "economic contracts".

### **The next steps: 1999 Edition (GF-99-0201) and the 2003 Edition (GF-2003-0201)**

Although the 91 Version assisted the contracting parties to prepare the construction contract, deficiencies in this version unfolded as it was applied (Yin and He, 1997; Li and Ren, 1997). Such deficiencies affected (1) the Engineer's Role in supervising the project; (2) unclear responsibilities and/or risk allocation; (3) priority of contract documents; (4) no provision for employer nominated subcontractors; (5) lack of claims procedure; (6) unclear dispute resolution procedure. Such deficiencies taken together with the changing regulatory landscape which included introduction of: the Arbitration Law (1994); the Insurance Law (1995); the Construction Law in 1998 and with further reference to international practice led to modifications being implemented to create the 1999 version. The 1999 version was extended to include three parts: the Contract Agreement; General Contract Conditions and Particular Contract Conditions.

The prominent changes implemented in the 99 Version were the addition of working procedures that focused on standardization of the working relationships of the parties (Clauses 2, 3.3, 5, 7, 9, 10, 16, 19, 24, 26, 27, 29, 32, 33, 36, 38, 44, 45). Terms and roles such as project manager, Engineer and Supervision Unit were introduced. A mutual "performance bond" was also introduced. Health and Safety also received some emphasis by its incorporation within a separate section on its own (see the three clauses in Section 6) rather than being listed as a minor subject in the catch all section 10 of the 1991 Version.

Further regulatory change including the introduction of the Contract Law in 1999 and the Bidding Law in 2000 implied further modifications were required to the 1999 version. Minor drafting changes were also implemented resulting in GF-2003-0210 ("the 2003 version") being issued by government officials with guidance and input from practitioners and scholars.

### **A step change?: the 2007 version (GF-2007-0201)**

The early versions of the Chinese model construction contract greatly assisted regulation and governance of behavior of the contracting parties. However, even though behavioural change was facilitated, practitioners considered the model contract became prescriptive in nature

lacking the flexibility to meet modern needs for complex projects, particularly projects of heavy engineering.

Different model contracts were thus prepared and being used by other ministries including: the Ministry of Water Resources; the Ministry of Communications; the Ministry of Railway; Broadcasting and TV General Administration and the Civil Aviation General Administration. However, the China National Development and Reform Commission set out to prepare a unified model form of construction contract in 2005 drawing together these other ministries and general administrations.

To that end a Drafting Committee of experts across the industry were drawn together with China National Association of Engineering Consultants ("CNAEC") being the coordinator. Members of the Committee consisted of both government officials and industry professionals. Their first meeting was held in July 2005 in Beijing. Whilst no formal notes were prepared from the meeting the following drafting principles were generally agreed:

- Conformance to Chinese laws: Contract, Construction, Arbitration, Bidding
- FIDIC 1999 Form as the basic reference framework
- Clear procedures
- Emphasis on specifying allocation of risks
- Emphasis on Health and Safety
- Simplicity and Clarity
- Introduction of Dispute Adjudication Board ("DAB") for settlement of disputes

As a result of the combined efforts of the individuals and organizations on the drafting committee, a new Model Construction Contract ("the 2007 Version") drawing on FIDIC 1999 was released officially in the joint names of ministries, commission and administrations involved.

Both structure and content changed with the 2007 version comprising three parts: General Contract Conditions; Particular Contract Conditions; and the Appendices. Within the General Conditions were 24 clauses largely following the format of the FIDIC 1999 contract clauses including: General Provisions; Employer's Obligations; Supervision Engineer; The Contractor; Materials and Plant; Construction Equipment and Temporary Facilities; Transportation and Delivery; Surveying and Setting-out; Safety, Security and Environment Protection; Programme; Commencement and Completion; Suspension of Work; Work Quality; Tests and Inspection; Variation; Price Adjustment; Measurement and Payment; Acceptance on Completion; Defects and Liability for Rectification; Insurance; Force Majeure ; Default; Claim and Dispute Resolution.

## **CONCLUSIONS**

This paper reviewed the latest edition of the Engineering and Construction Contract, NEC (2005) against the Latham requirements for a Modern Contract, Latham (1994:37-40). Both Latham (1994) and Barnes, (1996) suggested that the NEC contract was almost fully compliant with the principles of Latham's Modern Contract. This paper aimed to draw out the principal mechanisms within the NEC3 contract to demonstrate compliance on a requirement by requirement basis. The NEC3 contract was chosen as an example on the basis that earlier versions have already been translated into Chinese with plans for further translations.

The review has identified and set out the principles of NEC3 compliance with Latham's Modern Contract requirements with the aim of considering whether such principles and requirements could be of use in the Chinese construction market.

The Chinese move towards a Model Construction Contract was largely influenced by regulatory change and, whilst a review of the Chinese Model Construction Contract against the Latham requirements was not undertaken, such a review is recommended. This is particularly relevant in the light of the variety of problems resulting from the limitations of traditional project delivery systems in construction including, the inappropriate allocation of risk and reward. Low efficiency and poor project performance have also been identified in the

Chinese domestic market (Tang et al 2008). In recent years, researchers and practitioners have drawn on international lessons in construction procurement subsequently pointing out the relevance of partnering (Zhang et al 2006). Preliminary studies have suggested that relational contracting (the NEC being one of the standard forms used in this field of contracting) could be effective in the Chinese domestic market provided appropriate countermeasures are adopted to eliminate the obstacles to such form of contracting (Gong and Wang, 2007).

Some conclusions have been drawn in this paper, nevertheless, further research is envisaged to analyse the legal and cultural framework of the Chinese construction market in order to identify whether Latham's requirements for a Modern Contract are appropriate for this market in particular for multinational projects. Dependent on the outcome of the analysis, a further and more detailed review of the Chinese Model Contract may be necessary to identify how compliant the contract is to Latham's requirements for a Modern Contract and to further identify any shortfalls with recommendations for correction.

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