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THE CUTTING EDGE IN PM

Trials and tribulation: the New Engineering Contract (NEC) in practice

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The engineering and construction industry has become infamous for the level of claims and disputes, which ultimately result in poor project performance by objective measures. Many clients who are dissatisfied with the status quo have turned to the New Engineering Contract (NEC) in an attempt to reduce conflict and facilitate collaboration between contracting parties. However, it is concerning to note that users of the NEC have generated widely differing responses. To develop a better understanding of this tendency, a study was undertaken to survey the NEC Engineering and Construction Contract (ECC) in practice. This entailed interviewing both client and contractor representatives on 13 large-scale ECC projects to assess their experiences.

Culture change

The ECC forms part of the NEC family of contracts and is intended for general use on engineering and construction projects. The stated objectives of the ECC are to make improvements under three main headings; namely flexibility, clarity and simplicity, as well as stimulating good management. In essence, the ECC is aimed at improving the quality of project delivery. It is procedural in nature and is structured to incorporate project management best practice that has emerged in recent years.

The ECC is intended to facilitate foresighted, co-operative management, while maintaining a clear division of function and responsibility. It is believed that this approach can mitigate problems and shrink risks that are inherent to the construction process, as well as motivating people to play their part and accept accountability.

The NEC is thus the mainstay of a broader initiative to change the culture and attitude of industry participants. This is a prerequisite to improving the value of projects and creating an environment where industry productivity and competitiveness can be enhanced. Yet it is clear that in many cases, the intended benefits do not materialise. Thus, the crucial question remains whether all parties to contracts are in fact able to work together in a spirit of co-operation for mutual advantage.

Sound relationships

A striking point of this research was the importance attributed to a sound contractual relationship in contributing towards contract success and eliminating conflict. Furthermore, the primary expectation of the contract was notably to mediate contractual relationships. Yet a contract cannot force people to trust and co-operate; honourable intent remains a proviso. In fact, the actual determinants of the relationship tend to be more intricate. Five criteria for eliminating conflict and

building relationships, which are particularly pertinent to the NEC, were established and are listed in order of significance.

1. Dynamics of interpersonal interaction

The skills, personality and attitude of the people that interact at the coalface of a contract are inextricably linked to the quality of communications and the extent to which teamwork ensues. The selection of appropriate personnel to manage a contract is imperative.

2. Competence of personnel

The deployment of an adequately resourced management team, which is skilled and competent in project management and the specific technologies of the project, is critical for a successful outcome. This must include the appointment of an actively involved leader who is empowered to act decisively, or alternately enjoys strong client support that is responsive to resolving problems.

With specific reference to the NEC, many of the initial difficulties experienced relate to its learning curve since it is radically different to other forms of contract and the style of administration must be adapted accordingly. Prior training in its use is essential to avoid the many pitfalls that await the unaware.

3. Contract agreement

The contract agreement, and in particular the Works Information (Scope of Works) needs to be clear, correct and the intent of the agreement must be easy to verify after the event. It was noted that the most common cause of conflict between the parties relates to the late supply of information, as well as ambiguity and errors in the contract document. This can best be managed by ensuring that thorough, proactive planning is conducted to iron out problems at the outset. Subsequently, this also facilitates changes (Compensation Events) to be managed more effectively and fairly.

4. Project control

This is a process of ensuring that good planning is conducted relating to costs, timing and quality or performance criteria, that suitable monitoring systems are implemented to proactively detect deviations during project execution and that changes are resolved efficiently. In essence, this merely entails the application of sound project management principles.

5. Contracting strategy

The contracting strategy is important in ensuring that a suitable match between client and contractor is achieved with respect to aligning value systems and goals. This invariably determines the manner in which the parties approach the contract and is tacitly conveyed through the tender selection criteria. While the emphasis placed on price in the selection process will always remain an inescapable reality of construction economics, it was noted that in addition, due consideration of the contractor's track record, capability and policies were more likely to lead to a healthy relationship and culminate in a successful project.

The strategy of developing mutual trust and co-operation, which is embodied by the NEC as a precursor to improved project performance, can only be nurtured if the parties conduct themselves in a fair and transparent manner. The ECC is structured to place the best interests of the overall project first, and in its wake, it ensures that both parties are suitably motivated to effectively manage their contractual performance. This is achieved through an intricate balance of risk and obligation allocation. Thus changes to the conditions of contract should be made with circumspect and in so doing, the intentions of the NEC philosophy must be kept foremost in mind.

It should also be borne in mind that the NEC is a complex project management tool that necessitates a professional management approach. When applied to appoint relatively unsophisticated contractors who lack the capability, systems and know-how common to industry leaders it tends to undermine its effectiveness. In such cases, it was noted that proactive involvement of the client was often necessary to assist the contractor in overcoming this hurdle.

Perceptions of the NEC

The research findings suggest that the ECC has had a considerable influence on contracting in South Africa. It was noted that the primary user objectives of improving project management and control, improving the contracting process, and improving contractual relationships have largely been attained through application of the ECC. The ECC was also noted to be instrumental in structuring the contractual relationship and reducing conflict by means of its procedures, apportioning risk in a fair manner, and solidifying the agreement so that expectations and responsibilities are clearly defined.

Factors most commonly attributed to the ECC for contributing to the development of sound contractual relationships are shown in Figure 1. In particular, it is noted that the proactive Early Warning and Compensation Event procedures are regarded as a hallmark of its success.

On the other hand, detracting features of the ECC that were voiced include: it is too demanding to administer; some clauses (specifically, the weather measurement, indemnity and insurance clauses) are believed to be inadequate; unfamiliarity with the ECC methods tend to increase some contractor's exposure and the cost of bidding under the ECC is inevitably higher.

Reaping the rewards

Based on this research, there is strong evidence that the ECC provides contractual procedures that improve conflict dynamics on contracts and aid the development of collaborative relationships. However, the extent to which the intended rewards of the NEC are reaped was notably dependent on strict administrative adherence, as well as on each party demonstrating an ongoing commitment to work together in a spirit of collaboration. In cases where the NEC had been successfully deployed, it was noted that the following attributes were invariably present:

1. An asserted effort to adjust to the NEC paradigm shift and working in close adherence to its procedures was evident.

2. An extensive strategy for selecting the “best value” contractor was applied and in most cases this extended to careful selection of the actual party representatives, consultants and subcontractors.
3. The respective contract administration teams of each party were adequately resourced, competent and trained in the ways of the NEC.
4. The ECC had been applied fairly and the temptation to indiscriminately reallocate risk in pursuit of transitory gains or to possibly create some latitude for in-house project management deficiencies had been resisted.

An endearing partnership, which is characterised by mutual trust and openness and embodies the spirit of the NEC, tends to elude those who act outside this ambit.

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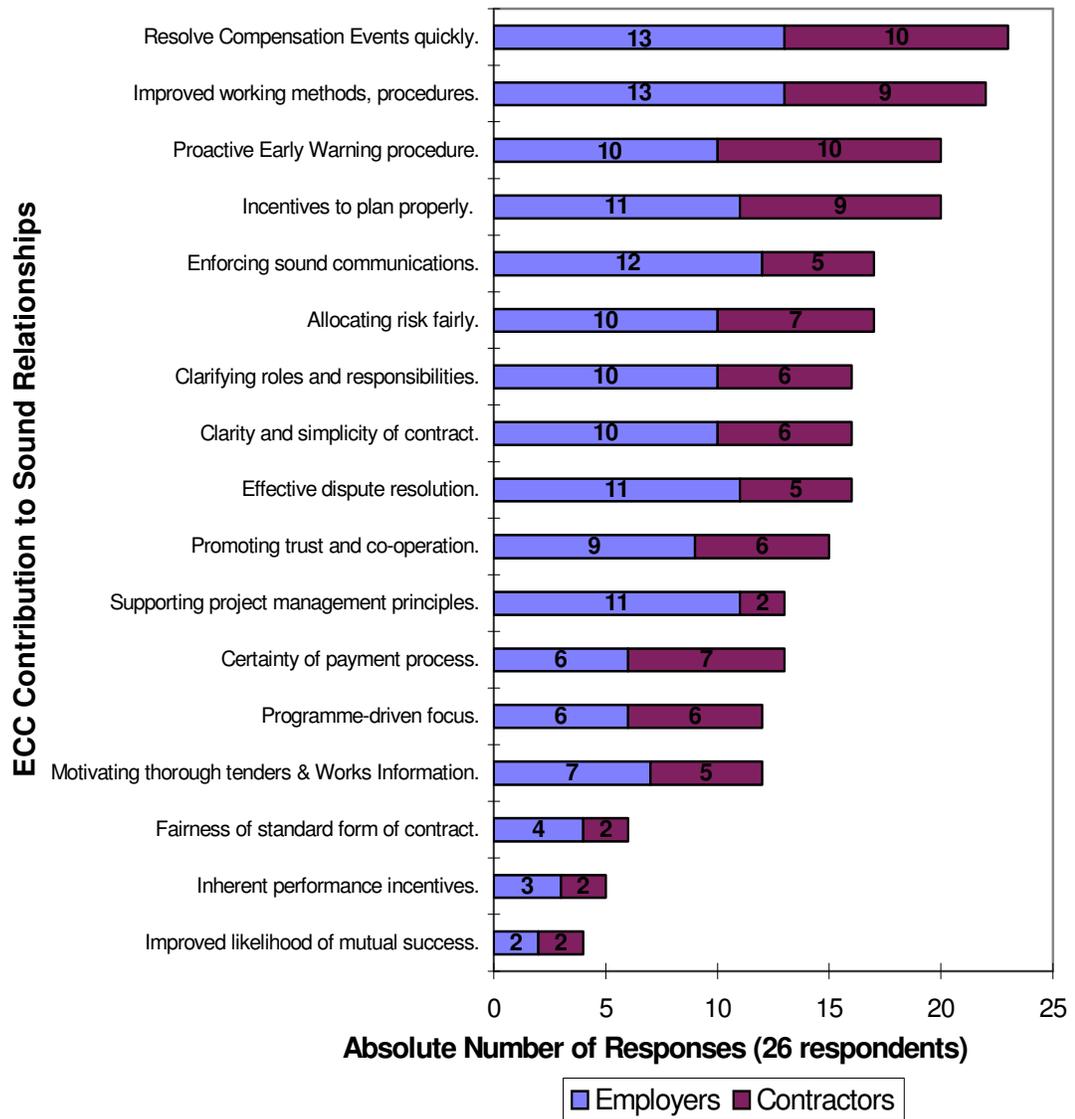


Figure 1: ECC Contribution to sound contractual relationships