



Fig. 2. Organization Diagram, Danish-German Cooperation in Ems Dollart Region, in 1997

Source: Ibidem p. 24.

THE NEW ENGINEERING CONTRACT (STIMULANT TO GOOD MANAGEMENT)

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INTRODUCTION

This is a summary of the main features of the New Engineering Contract which appeared in the new market conditions. The New Engineering Contract has been developed to meet the current and future needs for a form of contract to be used in engineering and construction generally which is an improvement on existing standard contracts in a number of ways.

The New Contract is intended to be used for engineering or construction work containing any or all of traditional disciplines such as civil,

mechanical and building work. It is intended to be used whether the contractor has some design responsibility, full design responsibility or no design responsibility. It is intended to provide all the normal current options for types of contract such as competitive tender where the contractor is committed to his offered prices, target contracts, cost reimbursable contracts and management contracts. Every procedure has been designed so that its implementation should contribute to rather than detract from the effectiveness of management of the work by the parties. This aspect of this contract is founded upon the proposition that foresighted, cooperative management of the interactions between the parties can shrink the risks inherent in construction work. Developments in project management techniques have moved faster than the evolution of traditional forms of contract. With the New Engineering Contract, it is now possible to build arrangements for the different parties to contribute to the management of a project upon improved practices and to motivate all the parties by means of the contract to apply such practices to their work.

STIMULANT TO GOOD MANAGEMENT

The New Engineering Contract is based on the two principles. There are:

- Foresight applied collaboratively mitigates problems and shrink risk.
- Clear division of function and responsibility identifies accountability and motivates people to play their part.

All the procedures in the New Contract are designed to stimulate good management. Prominent examples of these are the early warning procedure and the way in which compensation events are dealt with. Compensation events are events, foreseen as often as possible, which can lead to extra payment to the contractor and by the employer or to a delay to the completion date, or which affect the performance of the completed project. The principle by which they are handled is that the project manager, acting on behalf of the employer and in communication with him, should be presented with options for dealing with the problem between which he can choose, directed by interests the employer. The contractor should be indifferent to the choice made. To achieve this, the valuation of compensation events is based upon a forecast of the impact which the change or problem will have upon the actual cost to the contractor of carrying out the work - as forecast by him at the time that the assessment of the event is made. Where, as is usually the case,

alternative ways of dealing with the problem are possible, the contractor prepares quotations for the different ways in which the problem can be tackled. The project manager selects one, on the basis of which will be most in the interests of the employer. In some cases, this will be the lowest cost solution, in others it might be the least delay solution.

The change to the prices of the work is decided at that time based upon the quotation. Subsequently, the contractor is at risk if his forecast of cost impact turns out to be wrong, but the employer has a firm commitment. The risk to the contractor of this method of pricing is conceptually similar to the risk he takes by pricing work at tender but it is a lesser risk because he is able to forecast costs very much more accurately at the time that the problem is identified than would have been possible at tender stage.

This arrangement is intended to stimulate foresight, to enable the employer to make rational decisions about such things as changes to the work with reasonable certainty of their cost and time implications, and to put a risk on the contractor which is entirely tolerable but which motivates him to manage the new situation efficiently. An important by-product is that few issues relating to valuation of the work or extensions of time are left to be settled after the event. This is a good example of how the procedures in the New Engineering Contract have been designed to stimulate good management and to shrink risk.

A typical aspect of this characteristic is the way in which the New Contract makes use of the programme for design, construction and installation. Many of the detailed procedures rely upon the fact that an up-to-date and realistic programme maintained by the contractor is used in joint decision-making between him and the project manager. The use of the programme (which includes method and resource statements) is defined in some detail and in such a way that, again, the contractor is motivated to keep it up to date and realistic and not simply exhorted to do so.

CONTROL BY THE PROJECT MANAGER

The contract places considerable authority in the hands of the project manager. It does assume that he has the authority of the employer to carry out the various actions and decisions which are his and that he will seek the views of the employer as much or as little as his relationship with the employer requires. He may change the work, alter or impose constraints on how

the contractor is to carry out the work and generally apply his managerial and engineering judgement to the conduct and outcome of the work. Through the compensation even procedure, the contractor's risk is not increased by the project manager acting upon this authority. Indeed the New Engineering Contract encourages positive management in this sense from both sides. It recognises that reaction to the unexpected is part of the normal currency of engineering construction projects. Whilst it is clearly better if everything is known beforehand and nobody is taken by surprise, the operation of the contract does not depend upon this ideal being achieved or even approached.

Perhaps the strongest feature of this type of contract which stimulates co-operation rather than adversarial activity is the fact that the contractor is indifferent to the way the project manager decides to deal with problems which are in his responsibility area. If the contractor's eventual payment is largely secure, he is not led to make worst of any problems which arise, either as regards their effect upon cost or upon the timing of the work. This feature is strengthened by the flexibility available to the employer and the project manager in their pre - contract choice of main option for a particular contract ranging from priced commitment to cost reimbursable. This new contract permits this choice of contract strategy without the need to resort to different standard forms.

In total, the New Engineering Contract is intended to provide an up-to-date method for employers, designers, contractors and project managers to work collaboratively and to achieve their forms of contract whose practices are founded in an earlier age. Use of the new contract is intended to lead to a much reduced risk of cost and time overruns and of performance of the completed projects to the employer, and to a much increased likelihood of achieving a profit for the contractor, subcontractors and suppliers.

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