EXTENSION OF TIME AND ACCELERATION CLAIMS

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UNIVERSITI TEKNOLOGI MALAYSIA
EXTENSION OF TIME AND ACCELERATION CLAIMS

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A thesis submitted in fulfilment of the requirements for the award of the degree of Master of Science in Construction Contract Management

Faculty of Built Environment
Univerisiti Teknologi Malaysia

MARCH, 2006
Specially dedicated to my family for their love and support
ACKNOWLEDGEMENT

A debt of gratitude is owed to many individuals who have given me the benefit of their unconditional help, tolerance and knowledge in writing and completing this thesis. I have received much help from various people and record my thanks even though their names are not mentioned here.

My special thanks are due to the lecturers in the Faculty of Built Environment, Universiti Teknologi Malaysia, who taught me selflessly throughout the duration of the course. In particular, I wish to express my gratitude to Associate Professor Dr. Rosli Abdul Rashid, Associate Professor Dr Maizon Hashim, En. Norazam Othman and En. Jamaludin Yaakob, for their constant guidance, encouragement, advice and comments.

I wish to extend my sincere appreciation to my main thesis supervisor, En. Jamaludin and my co-supervisor, Dr Maizon, for their invaluable suggestions and criticisms, many of which are incorporated in this thesis. I would also like to express my special thanks to my fellow classmates, Nor Jalilah Idris, Ling Tek Lee and Yong Mei Lee, who have in their own way helped me a great deal throughout the preparation and production stages of this thesis. I am also grateful to all my family members for their tolerance and motivation. I thank them all.

Oon Soon Lee, Dennis
March, 2006
ABSTRACT

One of the most common practical problems faced by many contractors in construction contract is the contract administrator’s failure in granting extension of time in a timely manner. When faced with a non-decision, refusal or late decision by the contract administrator, the contractor must pursue his contractual entitlement to additional time vigorously in order to avoid possible imposition of liquidated damages by the employer for late completion. Alternatively, the contractor’s only recourse is to “accelerate” his works and claim for loss and damage suffered in implementing constructive acceleration measures. This research thus seeks to determine the importance of the contract administrator’s duty in granting extension of time prospectively; and to ascertain the prospect of monetary recovery for loss and expense incurred in the event the contractor chooses to accelerate his works in the absence of timely award for extension of time. This research involved extensive literature review on time-related matters in the construction industry, which resulted in familiarity with the issues and achievement of the objectives of the research. The source of materials widely used include reference to relevant case-laws, books, articles, journals, seminar papers and website resources. The research shows that while a retrospective time extension may be valid in most instances, the contract administrator cannot choose to disregard his duty to administer the construction contract fairly. Thus, where it is possible to decide and reasonable to certify a time extension, the contract administrator must do so without undue delay. A claim for loss and damage may lie against the contract administrator or the employer, should the contractor accelerate the progress of his work to make up for a potential time loss for which an extension of time ought to be properly granted.
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AC – Appeal Cases
All EL – All England Law Reports
BLR – British Law Reports
CA – Contract Administrators
CIDB – Construction Industry Development Board
CONLR – Construction Law Reports
EOT – Extension of time
Ex – Exchequer Reports
FIDIC – International Federation of Consulting Engineers
FMSLR – Federated Malay States Law Reports
ICE – Institution of Civil Engineers
J – Judge
JCT – Joint Contracts Tribunal
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<tr>
<td>JKR</td>
<td>Jabatan Kerja Raya / Public Works Department</td>
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<tr>
<td>KB (or QB)</td>
<td>King’s (or Queen’s) Bench</td>
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<td>LAD</td>
<td>Liquidated Ascertained Damages</td>
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<td>LD</td>
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<td>NZLR</td>
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<td>PAM</td>
<td>Pertubuhan Akitek Malaysia / Malaysian Institute of Architects</td>
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<td>QC</td>
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<td>Universiti Teknologi Malaysia</td>
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CHAPTER 1

INTRODUCTION
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INTRODUCTION

1.1 Background of Study

This research work stems from the author’s desire to undertake an academic study on a specific practical problem experienced by the author during the course of his appointment as a construction contract advisor to a joint-ventured contractor client (the contractor) on a five-kilometres Deep Tunnel Sewerage System Project (the project) in Singapore between the year of 2002 and 2005. The problem relates to a non-decision by the contract administrator in granting extension of time despite obvious contractor’s entitlement on proper and valid contractual ground.

The project undertaken by the contractor was one of the six individual packages of works awarded separately by the Singapore Government, based upon the Public Sector Standard Conditions of Contract (PSSCOC). At one specific site location, the project involved certain interfacing works whereby the contractor’s

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1 Depending on the choice of the standard forms of contract, the contract administrator may be defined as the superintending officer (S.O), architect, engineer, certifier or owner’s representative.

2 Third Edition, 2005
works intersected with similar works performed by two other contractors at a permanent access shaft, which was to be constructed by the contractor.

As a matter of proper work sequence, the permanent access shaft was a critical and dependant activity subsequent to completion of the works by all three contractors involved in the interfacing works. Hence, it was a contractual obligation that all three contractors involved must complete their respective works by meeting (a process known technically as “break-in” to shaft) at one specific location, ahead of the construction schedule for the permanent access shaft.

The fact of the case is that the works of all three contractors were in substantial delay, albeit at differing magnitudes. Whilst the superintending officer (S.O) had advised the contractor well in advance that the works of the other contractors would be delayed for about a year, the S.O failed to grant extension of time to the contractor for delays occasioned by other contractors. Despite numerous requests and detailed submissions made by the contractor, the S.O persistently failed to grant proper extension of time (EoT). Apart from stating that he was unable to decide on the EoT entitlement, the S.O failed to give reasons for his failure to grant additional time.

The possible reasons for such a non-decision by the S.O, as identified by the author, are as follows:

1. The EoT related clauses provided in the contract are somewhat subjective. Clause 14.2 of the PSSCOC\(^3\) specifically affords the S.O to decide on EoT entitlement either prospectively or retrospectively. It provides that:

\(^3\) See Appendix A
The time … may be extended … either prospectively or retrospectively and before or after the Time for Completion …

2. Due to interference or pressure by the employer, the S.O might be heavily influenced and thus reluctant to oblige to the extent of committing a breach of his duty;

3. Procrastination by the S.O or difficulties encountered as to the appropriate choice of methods and approaches in ascertaining and determining complex issues of EoT entitlement that entailed concurrent, culpable and inculpable delays;

4. Lack of expertise on the part of the S.O in conducting proper delay analysis; and

5. Fear or concern on the part of the S.O (and hence the employer) that the contractor might claim loss and expense as a means of compensation once EoT was granted.

In the face of a consequent failure by the S.O in granting extension of time due, the contractor advised the S.O of his capability to accelerate and complete his works (other than the permanent access shaft) on schedule. However, the contractor argued that there would be no commercial benefit to the Government in return, had he done so, as he would end up waiting for other contractors to complete their part of works, prior to him constructing and completing the permanent access shaft. Nevertheless, the contractor requested for an instruction to proceed but the S.O failed to act.

As it turned out, all three contractors subsequently completed their own works (other than the permanent access shaft) at about the same time. This represents a delay of approximately nine (9) months when compared with the expected completion date. Based on the approved contract programme, the contractor was
entitled to construct and complete the permanent access shaft within a period of nine (9) months subsequent to completion of other contractors’ works. Pressurised by the risk of potential Liquidated Damages (LD) at a rate of S$15,000 per day, the contractor proceeded to accelerate and complete his works seven months later. The contractor claimed loss and expense\(^4\) incurred on top of his application for full extension of time. Both claims were rejected by the S.O.

Initially, both the contractor and the employer were adamant of their contractual position, leading to an impasse. Dispute thus arose and along with other unresolved dispute matters, the case was referred to the arbitrator for a decision. However, after enduring a costly and prolonged case preparation exercise involving both sides’ legal counsels, expert witnesses, factual witnesses and consultants, parties felt financially exhausted and agreed that commercial settlement was a preferred option in the interest of both parties. Few days before the trial was scheduled to commence, the case was eventually settled in private between the contractor and the employer, without intervention by a third party\(^5\). Thus, the opportunity for the appointed arbitrator to hear and decide on various contentious issues was lost. This left the otherwise an outcome of the arbitrator’s decision on a number of highly complex contractual issues in a complete mystery.

1.2 Problem Statement

Most standard forms of construction contract contain a mechanism for the contract administrator to deal with extension of time matters. However, the timing and manner for granting extension of time differ from one standard form to another. Unclear wordings or ambiguities in the standard forms often give rise to problem of interpretation in so far the contract administrator’s obligation is concerned.

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\(^4\) mainly under the heads of prolongation costs and constructive acceleration measures

\(^5\) through both mediator and arbitrator
In practice, it is common to find that contract administrator fails to exercise his duty in granting extension of time diligently and promptly, for various reasons. Some contract administrators choose to ignore or neglect their contractual obligations when a “relevant” delay event occurs. It has been common and somewhat a “convenient” practice that whenever the contract administrator considers it appropriate, EoT would be granted “at his own discretion”. More often than not, the contract administrator prefers to adopt a “wait and see” attitude until the project is fully completed, before taking his own sweet time to make his final decision with regard to the contractor’s entitlement to extension of time, retrospectively.

The late decision by the contract administrators poses a major problem to contractor seeking timely award of extension of time. In the absence of timely award of extension of time, the contractor is often left to decide, at some point, whether to accelerate the progress of his works or to “hope for the best”. To avoid imposition of liquidated damages by the employer for late completion, if applicable, the contractor must pursue his contractual entitlement to EoT vigorously. Otherwise, the uncertainty of getting additional time and the threat of liquidated damages may force him to accelerate the progress of his works in order to avoid late completion. However, there is no assurance for monetary compensation by the employer for the contractor’s acceleration effort. If he chooses to accelerate on his own, he runs the risk of not getting compensation for his additional expenses, as he lacks an “instruction” to proceed. On the other hand, if he decides to wait and not to accelerate, it will often be too late for him to implement any productive measures to recover the delay, if the final decision by the contractor administrator is inadequate or at worst, a non-entitlement. Either way, the situation is unsatisfactory and most frustrating to the contractor.

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6 See Appendix A - Clause 14.2 for list of “relevant” events
1.3 **Objective of the Study**

The main objectives of this study are:

1. To determine the importance of the contract administrator’s duty in granting extension of time prospectively, when he is required to do so, ignoring the possibility that in retrospect, the event might or might not have caused a delay, in order to avoid confrontation for failing to discharge his professional duty promptly and diligently.

2. To ascertain the prospect of monetary recovery for loss and expense incurred in the event the contractor chooses to accelerate the progress of his works in the absence of timely award for extension of time.

1.4 **Scope of the Study**

1.4.1 **Limitation**

Leading case laws examined are predominantly foreign based and so can only be taken as persuasive authorities. The local “climate”, culture and a less litigious society in Malaysia may not sit well with those guidelines provided by the Society of Construction Law (SCL) Protocol⁷.

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⁷ www.eotprotocol.com
1.4.2 Delimitation

Given the legalistic nature of this study, the approach adopted in this research is caselaw based. The standard forms of contract commonly referred to and examined in this research are:

3. Public Works Department (P.W.D) Form 203A (Rev. 10/83)
8. Institution of Civil Engineers (ICE) Conditions of Contract (7th Edition, 1999)

Although highly relevant and equally important, restriction of time and length of the report does not warrant the author to discuss the intensity of other closely related matters such as:
1. Delay analysis philosophy and methods;

2. Loss and expense, whether of acceleration, prolongation or disruption in nature; and

3. The doctrine of concurrent delay

1.5 Significance of the Study

This research should add to (if not create) awareness to both the contractor and contract administrator on contract administration duty in so far strict and timely grant of EoT obligation is concerned. This will enhance better understanding of the contract administrator’s role and lead to improved working relationship between the contractor and contract administrator.

1.6 Research Methodology

This research involved extensive literature review on time-related matters in the construction industry. This resulted in familiarity with the issues and achievement of the objectives of the research. The source of materials widely used include construction law cases, reference books, articles, journals, seminar papers and website resources.
Most importantly, relevant caselaw report such as *All England Law Reports*, *Malayan Law Journal*, *Singapore Law Report* and the like, made available through the website database of Lexis-Nexis, have been used extensively for the purposes of this research.
REFERENCES


http://www.alway-associates.co.uk/articles/article.asp?id=24


