Mitigating Contractor's Claim on Loss and Expense due to the Extension of Time in Public Projects: An Exploratory Survey

Nor Hidayah Yahya
Centre of Studies for Quantity Surveying, Faculty of Architecture, Planning and Surveying Universiti Teknologi MARA
hidayah_sudoku@yahoo.com.my

Mohammad Fadhil Mohammad
Centre of Studies for Quantity Surveying, Faculty of Architecture, Planning and Surveying Universiti Teknologi MARA

Marina Musa
Quantity Surveying & Contract Division, Public Works Department, Malaysia

Abstract
The main research aim is to look at mitigating construction claims on the issues of Loss and Expense in construction projects. This paper however, aims to explore the understanding and also viability of the research topic with reference to the Public Works Department (PWD) projects in Malaysia. Some of the critical issues and challenges faced by the clients in mitigating the contractor's loss and expense claims will also be highlighted accordingly. Data were collected through an exploratory survey that was distributed among selected multi-discipline professionals in the PWD as well as in the private sectors for comparative purposes. Data were then analysed with the inclusion of the results, comments and recommendations on the importance of research in mitigating contractor's claims on loss and expense due to the Extension of Time (EOT). The findings showed that 90% of the respondents agreed on the relevance of the research topic in relation to the minimization of loss and expense claims. The findings from this study will also be used in establishing fundamental aspects of the research especially in developing key objectives of the main research.

Keywords: Construction Claims Exploratory Study, Extension of Time (EOT), Loss & Expense

1.0 Introduction

The Construction Industry plays an important role in leading the growth and development of infrastructures in Malaysia. In 2014, about RM42.2 billion construction fund was spent and in 2015 the value had increased by 20% to RM50.5 billion (CIDB, 2015). The projects involved were buildings such as schools, hospitals, complexes and also infrastructures projects such as roads, bridges, tunnels and water and electrical systems. All these developments were completed in specified period of time. Public Works Department (PWD) or Jabatan Kerja Raya (JKR) is the Government implementing agency that is responsible in managing and monitoring most public infrastructure and building construction in Malaysia. Therefore, in view of the vast responsibility of the PWD, and the large projects which the agency has to handle, it is not surprising that claims for loss and expense are continuously increasing. According to Adekunle *et al* (2016), claim is a complicated and difficult issue that requires professional judgement in order

to scrutinise the claim. Adekunle (2016) and Seeley (1997) agreed that claim is a request by the contractor to recompense for some losses or expenses or an attempt to avoid the requirement to pay the liquidated and ascertained damages. Claims occur when the regular progress of the works delayed. Whereas Hassanein & Nemr (2016) and Hughes & Barber (1992) defined a claim as "a request, demand and application for payment or notification of presumed entitlement to which the contractor, rightly or wrongly at this stage, considers himself entitled to and with respect of which an agreement that has not yet been reached".

The industrial sector in particular is one of the areas most susceptible to changes and claims (Burati, 1992) and Hassanein & Nemr (2007). Heavy industrial projects need time for design. Execution phases might commence while the design phase is still in progress, leading to incomplete and inaccurate design (Hanna & Russel, 1998) and Nemr (2007). The end result will be the abundance of claims, which will lead to the increased cost of projects and delay of completion time. Completing a project on time, following the specific cost stated in the contract and specified quality as per in the specification and contract documents while fulfilling the client's needs and satisfaction are the critical indicators in measuring a project's success. Yoke-Lian *et al.* (2012) and Lim (1999). Therefore, due to this complex and unique environments, delay has become a norm in the construction industry. When project delay happens, the contractor would be penalized by having to pay liquidated and ascertained damages (LAD as stated in the contract. Therefore, in order to avoid this penalty being imposed, contractors will usually pursue the claim for Extension of Time (EOT). Hamzah *et al.* and Tawil (2012) and Tumi (2009) defined delay as a slowing down of work without stopping it completely. If delays impacted upon the critical path rather than merely taking up available float, in such a way that the contractor failed to meet the contractual completion date, the contract will generally give provision to the contractor an extension of time (EOT). The contractor will also be entitled to claim for loss and expense, such as additional preliminaries (Brawn, 2012). Delays increase the disturbance of work and cause loss of productivity, while late completion of project increases time-related costs and third party claims and can lead to abandonment or termination of contract. It is important to keep track the progress of the work on to reduce the possibility of delay or identify it at early stage.

In a nutshell, Loss and Expense claims can be defined as the rights for contractor's to claim for direct loss or/and expenses that they are entitled to some causes or circumstances where the contractor is not eligible to claim from any clauses in the condition of contracts. A claim for loss and expense is often described as the financial side of a 'delay' claim. However, delay caused by the employer in a project does not all the time results in a loss to the contractor. The same situation is probable when the contractor has received an extension of time, it does not necessarily mean that they are entitled to additional payment as well. Moreover, the losses actually suffered are not always down to the delay. For example, where the progress of the contractor's work turns out to be less efficient as a result of employer's actions, the contractor can have a claim for disruption instead of delay. It is

important to recognise that delay and disruption are two distinct concepts where delay is related to time, and disruption is related to efficiency and the need for additional resources. A 'delay' claim is essentially a claim for prolongation, either of the project or of particular activities. Certain resources (such as office or management) may require for a longer period, or particular activities may have taken longer time, so that resources (such as plant or labour) were required for that activity, thus incurring additional costs (RICS, UK). In the PWD, the clauses for claims loss and/or expenses is mentioned in clause 44.0 in PWD Form 203(Rev 2010) & PWD Form 203A (Rev 2010) and clause 50.0 in PWD Form DB (Rev.1/2010). For the purpose of this study, focus will be given only on Claims for loss and expense due to Extension of Time (EOT) in accordance to Clause 43.0 PWD Form 203 A (Rev 1/2010) and Form PWD 203 (Rev 1/2010) for Conventional project, whereas for Design & Built (Rev.1/2010) project, the clause for Extension of Time falls under clause 49. According to the contract, the contractor's obligation is to complete the work regularly and diligently. Contractor must also complete and construct the works before or on the agreed completion date. If there is at anytime during the contract period, government or his party is affecting the work progress or where the contractor cannot deliver their work regularly and diligently, it will be considered as a breach of contract. Section 74, Contract Act 1950 stated that;

Compensation for Loss or Damaged Caused by Breach of Contract

74(1) When a contract has been broken, the party who suffers by the breach is entitled to receive, from the party who has broken the contract, compensation for any loss or damage caused to him thereby, which naturally arose in the usual course of things from the breach, or which the parties knew, when they made the contract, to be likely to result from the breach of it.

74(2) such compensation is not to be given for any remote and indirect loss or damage sustained by reason of the breach.

Therefore, this section (Section 74), has clearly explained that only loss that happened directly due to any breach of contract by the government during a reasonable time in the contract is entitled for the contractor to claim for loss and/or expenses. This section also stated that the level or types of claims that can be considered is the claim that is in accordance with the principal of remoteness of damage.

Claims and the process.

Claims may be defined as the seeking of consideration or change by one of the parties involved in the construction process. Claims occur frequently in the construction industry. Once a claim is presented, it may result in a negotiation between the parties, resulting in a change order or a modification (Arditi & Bhupendra , 1989). According to Ren *et al. (2001),* the reasons for the claims problems can be analysed by three factors from social, industrial and project perspectives. Factors from social aspects include meeting cost, time and quality including environmental issues, industrial factors cover increasing size of projects and uncertainty in

construction environments while project factors are unforeseeable site conditions, unrealistic planning and specifications.

According to Enshassi et al. (2009) construction claims and disputes can occur in both public and private funded projects, and in small or large projects. Therefore, all parties including the owners and contractors should fully understand the claim process. Claim for loss and/expenses can be caused by several reasons. There are claims that are embedded in the contract and also other categories of claims. Claims under the contract can be divided into claims due to the Extension of Time such as claims for loss and / expenses at construction site, loss of profit and loss of financial interest. Whereby, claims due to discrepancies in the document contracts are divided into clause 8b, conditions of contract PWD 203/203A and also clause 7 in conditions of contract PWD Form DB (Rev.1/2010). Other categories of claims are not included in the contract are claims due to termination or mutual termination and increasing materials price. However, the focus of this research is only on claims for loss and/or expenses due to the Extension of Time (EOT) focusing only on PWD projects. Most construction projects experienced completion delay, and as a global phenomenon, the Malaysian construction industry is of no exception (Norazian & Hamimah, 2013). Therefore, when there is EOT, the chances for contractors to claim for loss and/or expense is always there. Table 1 below illustrates statistical figures of claims and its types in the PWD for year 2008-2009.

Table 1 : Summary of Claims from Year 2008 - 2009 PWD

	Total Claims		**Total Approved Claims**	
	Amount (RM)	**Percentage %**	**Amount (RM)**	**Percentage %**
Claims due to Extension of Time	861,886,142.90	96.53%	13,199,965.02	89.07%
Claims due to Discrepancies in Document Contract	15,785,020.05	1.77%	1,620,000.00	10.93%
Claims due to Project Terminated /Mutual Termination	0	0.00%	0	0.00%
Claims due to Materials Price Increase	6,629,258.46	0.74%	0	0.00%
Other claims	8,545,660.62	0.96%	0	0.00%
TOTAL	892,846,082.03	100.00%	14,819,965.02	100.00%

Table 1 shows that claims due to the Extension of Time (EOT) is the highest compared to other types of claims. It was followed by claims due to discrepancies in contract document, claims due to materials price incriment and other claims. Due to this reason, claims due to Extension of Time (EOT) was chosen for the research. Usually, contractors will claim for loss and/expenses as stated in the column of total claims in Table 1 and will present and submit to the committee for approval.

Generally, there are 6 stages in the claim process. It starts with the identification and followed by notification, examination, documentation, presentation and negotiation of claims (Zaneldine, 2006) and Enshassi *et al* (2009). Therefore, in the PWD, the concept of process claims is basically the same. The process starts with the identification of claims from contractors and submission of the claims to the PWD followed by assessment and report by the Superintending Officer (S.O) or Project Director (P.D). Next, the S.O/P.D will submit the claims report to the claims committee so that the claims committee can arrange a meeting for a pre claims approval. Committee chaired by head of the PWD will arrange a meeting to approve the claims with a committee chaired by the head of the PWD will then decide the approval of the claims. Since project participants are becoming more aware of the high costs and risks associated with claims and their litigation, the construction industry needs to develop methodologies and techniques to reduce or prevent claims. (Zaneldin, 2006). From the literature search, several studies have been conducted for claims for loss and/expenses. S.Scot(1997*)* conducted a survey on assessment and evaluates delay claims in the UK, while Zaneldin (2006*)* study on the types, causes and frequency of claims in UAE. Enshassi *et al.(2009)* study the problems occurs for every process of claims in Palestine, Whereas in Egypt that is a study on management of change order claims in Egypt Construction Sector by AMR A.G.Hassanein *et al. (2007)* , while in Malaysia there was a study on construction claim management systems in Malaysia by Nor Azmi Bakhary *et.al (2014).* However, there is still a lack of study on ways to prevent or minimize the claims for loss and expense in the Malaysian construction industry. This research starts with a literature search and is later complimented with an exploratory survey to set the scene for the main research on the topic of mitigation measures on loss and expense claims in public projects.

2.0 Research Methodology

Data were collected from 31 respondents (20 Quantity Surveyors, 6 Civil Engineers, 2 Mechanical Engineers, 1 Electrical Engineer and 2 Building Surveyors) in both PWD and private sector as stated in Table 2. 90% of the respondents are from the PWD, while the remaining 10% are from the private sector. The reason for choosing mostly PWD respondents in the survey has to do with the scope of study that focuses on public projects handled by the PWD. Based on the data shown in Table 2, the majority of respondents are from the QS profession with the percentage of 70% from the overall respondents, followed by Civil Engineer 33%, Mechanical Engineer 6.45%, Electrical Engineer 3.23% and Building Surveyor 6.45%.

Table 2: The respondent's profile & their year of experience in construction industry

	Number & The Percentage of Respondents		**Year of Experience in Construction industry**			
			5-10yrs		> 10yrs	
Characteristic	Number	Percentage	Number	Percentage	Number	Percentage
Quantity Surveyor	20	64.52%	6	30.00%	14	70%
Civil Engineer	6	19.35%	4	66.67%	2	33%
Mechanical Engineer	2	6.45%	1	50.00%	1	50%
Electrical Engineer	1	3.23%	1	100.00%	0	0%
Building Surveyor	2	6.45%	2	100.00%	0	0%
Total	31	100%	14		17	

The Table 2 above also shows the respondents with their years of experience in the construction industry. 17 out of 31 respondents have more than 10 years of experience in the construction industry. The rest have between 5-10 years of experiences. This indicates that the majority of the respondents have quite a high number of years serving in the industry. Therefore, their valuable experiences can be considered reliable to meet the purpose and objectives of this survey. The respondents were asked to answer the survey that consists of two sections. Section A provides information regarding their particulars such as their profession and experience whereas in section B, respondents were asked to provide information related to their opinion on the research topic, understanding, process and implementation, research scope, projects categories, knowledge in loss and expense claims, relevant knowledge in loss & expense for technical PWD staff , knowledge in assessing claims for PWD staffs, guidelines & instructions on loss and expense claims , mitigation measures in claims for loss and expense and benefits of the research to the department. The data were then analysed and a detailed analysis of the data are shown in the following section.

3.0 Results and Discussion

Respondents were asked about the appropriateness of this research topic to the PWD. The table below shows the answer from all respondents.

Table 3: Viability & understanding of the research

Viability & Understanding of the Research						
	Viability of the Research			Understanding of the Research		
Respondents Profession	Agree	Disagree	Not Sure	No idea	Understood Partially	Fully Understood
Quantity Surveyor	17	1	1	1	11	7
Civil Engineer	5	0	1	2	3	2

Mechanical Engineer	2	0	0	2	0	0
Electrical Engineer	1	1	0	1	0	0
Building Surveyor	2	0	0	2	0	0
TOTAL	27	2	2	8	14	9

In Table 3, when the respondents were asked on the viability on the research topic, 87% of the respondents agreed while the rest disagreed or were not sure with the viability of the research topic. Eight of the respondents had no idea of the research topic, 14 understood partially while 9 respondents fully understood. Most Quantity Surveyors who have a background and knowledge in contracts understood the topic well while other professionals may have no idea on the research topic.

Table 4: Process and implementation

Respondents profession	**Understanding of the process and implementation of contractor's claims**			
	Yes	No	Not Sure	Total Number
Quantity Surveyor	16	3	1	20
Civil Engineer	4	1	1	6
Mechanical Engineer	2	0	0	2
Electrical Engineer	1	0	0	1
Building Surveyor	2	0	0	2
Total	25	4	2	31

The respondents were also asked on the importance of PWD technical staffs to understand the process and implementation of contractor's claim on loss and expense for public projects. As in **Table 4**, 25 respondents agreed on the importance of technical staffs to understand the process and implementation of the contractor's claims, while 4 respondents disagreed and another 2 respondents had no idea about the question.

Table 5: Projects Scale that respondents had involved in

	Projects Scale			
Respondents	Small	Medium	Big	Total Number
Quantity Surveyor	1	5	16	22
Civil Engineer	1	3	3	7
Mechanical Engineer	1	2	1	4
Electrical Engineer	0	1	0	1
Building Surveyor	0	1	1	2
Total	3	12	21	36
%	8	33	59	

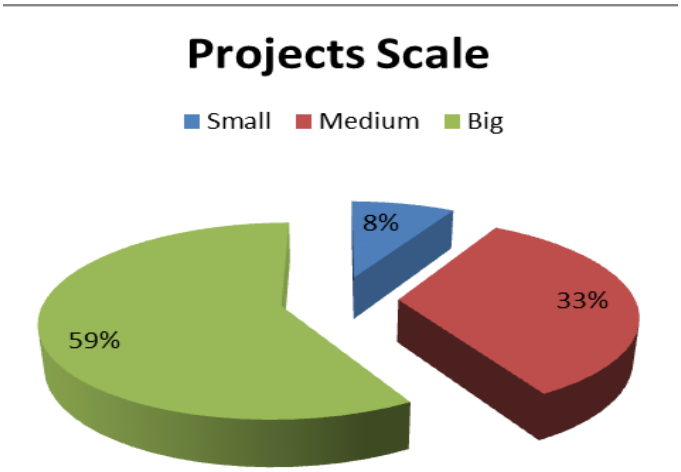

Figure 1 : Projects scales most contractors have tendency to claim

Table 5 represents the projects scale in which the respondents had involved. When the respondents were asked to rate which projects that most contractor have the tendency to claim as in Figure 1, 59% rated big scale projects, 33% rated medium scale projects and only 8% rated small scale projects. The total numbers of ratings are more than 31 as respondents were allowed to answer more than one answer.

Table 6: Stage of Construction where contractors faced the problems in loss and expense

	Stage of Construction			
Respondents profession	Early	Middle	Final	Total Number
Quantity Surveyor	5	9	11	25
Civil Engineer	2	4	3	9
Mechanical Engineer	0	0	2	2
Electrical Engineer	0	1	0	1
Building Surveyor	0	1	1	2
Total	7	15	17	39

The respondents are also tested in the survey on what stage of the contract that the contractors faced the problems in loss & expense claims as illustrated in Table 6. It shows that 44% of the respondents answered the final stage of construction.

Whereas 15 out of 39 answered the middle stage of construction and the percentage is about 38% and finally 7 respondents answered the early stage of construction that represent 18% percentage out of the overall percentage.

Table 7: Limitations in assessing claims

	Limitations in assessing claims			
Respondents profession	Yes	No	Not Sure	Total Number
Quantity Surveyor	16	3	0	19
Civil Engineer	6	0	1	7

Mechanical Engineer	2	0	0	2
Electrical Engineer	1	0	0	1
Building Surveyor	0	2	0	2
Total	25	5	1	31

Table 7 above represents the respondents answer towards the limitations of technical PWD staffs to assess claims for loss and expense. The majority of them agreed in general, that PWD technical staffs have issues and limitations in assessing claim for loss and expense. Five (5) out of 31 respondents answered no and only one (1) respondent answer not sure of this survey question.

Table 8: Mitigation measures for loss and expense claims

Mitigation measures for loss and expense claims				
Respondents profession	Yes	No	Not Sure	Total Number
Quantity Surveyor	16	1	2	19
Civil Engineer	5	0	2	7
Mechanical Engineer	2	0	0	2
Electrical Engineer	1	0	0	1
Building Surveyor	2	0	0	2
Total	26	1	4	31

Table 8 is a summary of survey from respondents towards the importance of mitigation measures that the PWD must develop in order to produce the framework of mitigation measures.
26 out of 31 respondents agreed that the PWD must come up with mitigation measures for loss and expense. Another four respondents answered no and the remaining 4 respondents are not sure of the survey question.

Table 9: The research topic benefit to the department

Benefit of research topic				
Respondents profession	Yes	No	Not Sure	Total Number
Quantity Surveyor	17	1	1	19
Civil Engineer	7	0	0	7
Mechanical Engineer	2	0	0	2
Electrical Engineer	1	0	0	1
Building Surveyor	2	0	0	2
Total	29	1	1	31

In Table 9, a majority of the respondents answered yes to this survey question while only one was not sure. It can be concluded that most of the respondents agreed that this research topic will certainly give benefit to the department. Therefore, the research in this area is vital and relevant to be carried out because of its significance to the department.

Table 10: Additional comments by respondents

Respondents	Comments
QS3	Mitigation measures should be emphasized on the S.O. and S.O. rep. How they control/manage the construction phase. Loss & expense can be avoided if they are well managed at site. Well planning before construction phase can avoid the EOT occurrences and definitely can avoid loss & expense claim from contractor.
QS13	PWD in the process of producing booklet on guidelines on claims due to EOT. Agree with the research topic and focus on obligations of Superintending Officer (S.O) in managing the projects and giving EOT to the contractor that can be causes for contractor to claim for loss and expense. Scope of study should be focus on either Conventional or Design & Built projects.
QS15	I am not exactly sure what you mean by mitigation measures mentioned in questions 18. Is this study deals with guidelines & framework to evaluate claim? Don't see how exactly the department can come up with guidelines to mitigate claims. In question 17 mentioned assess.
QS16	Quite frequently it was due to the weakness in project management. Maybe the cause of claim is inadequate in assessing the claims
QS17	Loss and expense in this survey is due to prolongation claims. To mitigate claim is actually to mitigate the extension of time (EOT).
QS18	1. Survey can give additional input/ideas relating topic. 2. Survey can be analysed on issues relating to the topic by looking into major problems encountered with claims cases in previous projects. 3. Discussion and findings from this survey can benefit both parties (surveyor and department) by suggesting better approach system in dealing with claims issues. (can even benefit the construction industry as a whole) 4. Survey should focus on specific categories of project.
CS1	Survey should cover as many party's as possible to obtain accurate results.
CS4	The candidate should get the common issue brought out by contractor about the loss and expense in JKR projects. From the list, the candidates can foresee the possible issues that can be managed in the construction stage.
M2	Research data can be obtained from 2 parties i.e. JKR and contractors.

Table 10 shows some of the suggestions that came from the respondents in view of the proposed subject matter and research topic. It may be useful in looking at some of the issues not highlighted in the exploratory survey for consideration in more detailed future research.

4.0 Conclusions

This exploratory survey can be used to assess the understanding and viability of the research topic especially to the PWD. The data gained from the survey had been analysed based on the reliable profile of selected respondents. Among the issues tested and evaluated in the exploratory survey include their perception on the research topic, the understanding level of the research topic, the understanding of the process and implementations of contractor's claims and the scale of projects involved in dealing with claims and whether the research findings will benefit the department. The suggested comments listed in Table 10 are also necessary in focusing the scope of research, tips on choosing type of case study and also procurement involved in claims for loss and expense.

However, loss and expense claims mitigation measures are still in the early process of research. Findings in this preliminary study can contribute to the direction of the main research and provide the necessary fundamentals and groundwork for future research.

5.0 Acknowledgements

Authors of this research wish to thank all respondents that were involved in piloting the survey questions and answering the questionnaire. The authors also would like to thank the PWD especially the committee of claims in giving appropriate direction for the research, providing necessary data and also beneficial comments in the survey.

References

Adekunle Sabitu Oyegoke (2016). "Building Competence to Manage Contractual Claims in International Construction Environment The case of Finnish contractors"*Journals of Engineering, Construction and Architectural Management. Vol 13 Iss 1 pp96-113*

Adnan Enshassi, Sherif Mohamed, Said El-Ghandour (2009). "Problems Associated With The Process of Claim Management in Palestine". *Journal in Engineering, Construction and Architectural Management, Vol.16 Iss 1,pp 61-72*

AMR A.G.Hassanein and Waleed El Nemr (2016). "Management of Change Order in The Egyption Industrial Construction Sector". *Journals of Financial Management of Property and Construction Volume 12, Number 1, pp45-60*

Amr A.G.Hassanein, Waleed El Nemr (2007). "Claims Management in The Egyption Industrial Construction Sector: A Contractor's Perspective".*Journal of Engineering , Construction and Architectural Management, Vol.15 Iss5pp.456-469*

Arditi,D. and Patel, B.K(1989). "Expert system for claim management in construction projects", *Project Management, Volume 7 number 3 141-146*

Daniel Brawn (2012). "Extensions of Time and Liquidated Damages in Construction Contracts in England and Wales". *International Journal of Law in The Built Environment, Vol4 Iss 1 pp.75-90*

Lew Yoke-Lian, S.Hassim, R.Muniandy and Tan Mee-Ling (2012). "The Assessment of Application for Extension of Time Claims in Malaysia Construction Industry". *IACSIT International Journal of Engineering amd Technology, Vol.4, No.4, August 2012*

Norazian Mohamad Yusuwan, Hamimah Adnan(2013). "Issues associated with Extension of Time (EOT) claim in Malaysian construction industry". *Journals of Procedia Technology 9 740-749*

Nor Azmi Bakhary,Hamimah Adnan,Azmi Ibrahim(2014). "A study of construction claim management problems in Malaysia" *Journals of Procedia Economics and Finance 63-70*

Scott S.(1997) "Delay claims in UK contracts". *Journal of Construction Engineering and Management 1997;123(3):238-44*

N.Hamzah, M.A.Khoiry, I.Arshad, W.H.W Badaruzzaman and N.M.Tawil(2012) "Identification of the Causes of Construction Delay in Malaysia".*Journal of World Academy of Science, Engineering and TechnologyVol 6,No,12,2012*

Zaneldin, E.K.(2006). "Construction claims in the United Arab Emirates: types, causes and frequency". *International Journal of Project Management, Vol.24, pp 453-9*

Z.Ren, G.J.Anumba,O.O.Ugwu (2001). "Construction claims management: Towards An Agent-based Approach". *Journal of Engineering, Construction and Architectural Management, Vol.8,No.3,pp185-197*

Statistics report claims summary 2008-2009 in PWD, 2009

Booklet of case study for Claims in PWD, 2009

Claims for Loss and Expense notes from PWD, 2015