King Fahid University of Petroleum and Minerals

Construction of Engineering & Management

Claims Management Course

CEM 591

Term Paper Topic:

"Boundaries and Limitation of

Professional Liability"

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Abstract

There are two sources of professional responsibility for engineer. The first is professional organization and societies, such as American Society of Civil Engineer, the National Society of Professional Engineers, Institute of Electrical and Electrical Engineers, and similar groups. The second is state of legislation and corresponding regulating governing professional engineer (5).

Distribution of the responsibility is sign for failure or success of the project. For example, mechanical engineer is responsible for design of mechanical system while the mechanical subcontractor is become accountable for construction of the mechanical system. The purpose of this report is to discuss the professional liability in term of boundary and limitation. Since designer can now participate in mitigating construction safety hazards, he is responsible for construction worker safety by incorporate his knowledge in the scope of work.

There are two main statues of limitation that affects design professionals (3). They are based on the date of completion of work and based on date of damages. This report is thoroughly discusses boundary and limitation of professional liability.

Introduction

Construction and engineering professional can reduce the risk of their mistakes and errors by insurance. Insurance clauses usually states that the carrier is to pay obligated amount as damages due to" bodily injury" or " property damages" that result of occurrence during the policy period. Most of the arguments presented in the court cases relate to the depth of a designer's involvement in ensuring worker safety during construction and the designer's relationship, contractual or assumed, to the injured worker (2).

The objective of this report is to discuss boundaries and limitation of professional liability. Questions concerning whether the designer is held accountable for accidents occur in the construction site and the length of time that designer can be sued will be fully discussed in this report.

This report starts by emphasis the important of professional liability by showing relationship between total claims against professional liability through analysis of 370 claims. After that, there are two parts fairly discussed. First part will show how design for safety knowledge can reduce the designer responsibly and prevent injuries and fatalities. Second part, a discussion of statues limitation and period that designer can be held accountable. This report will be concluded by presenting the significance of professional liability and summarized results and conclusion of Journals used for this report.

Claim analysis from risk –retention professional liability

Architect and Engineers Insurance Company (AEIC) provide professional liability for more than 7 years. The sample size of study sample was taken from 90 representatives of architectural and engineering firms in Chicago on 1987. It includes various types of design discipline including architect, structural engineers, mechanical engineers, electrical engineers, environmental engineers, construction managers and petrochemical engineers. The analysis of 370 claims that relate a number of errors and omission (E &O) with allegation as it is shown in Fig.2.In chart it clearly shows that a design error which leads to delay and extra cost is considered as the highest percentage of total claims.

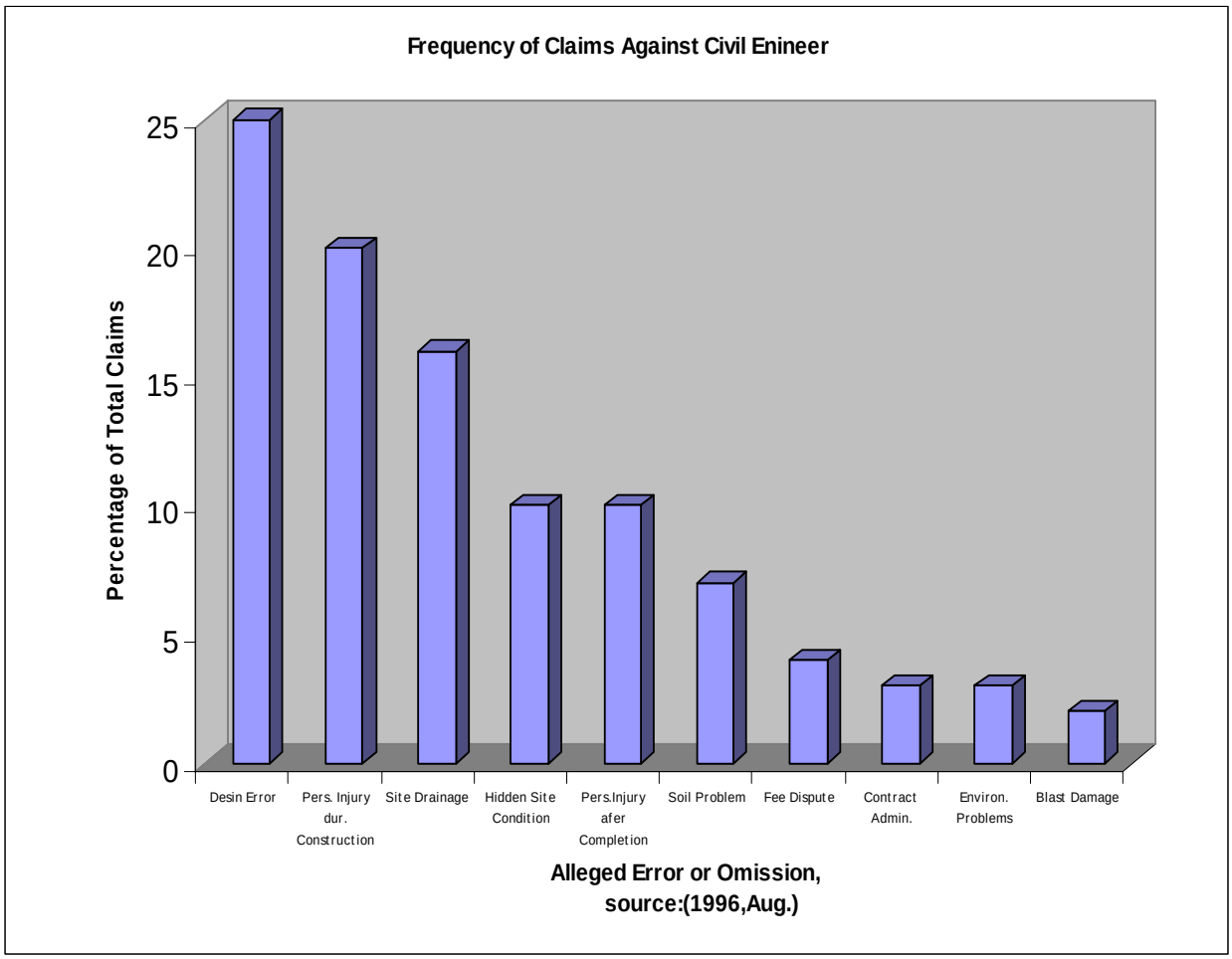
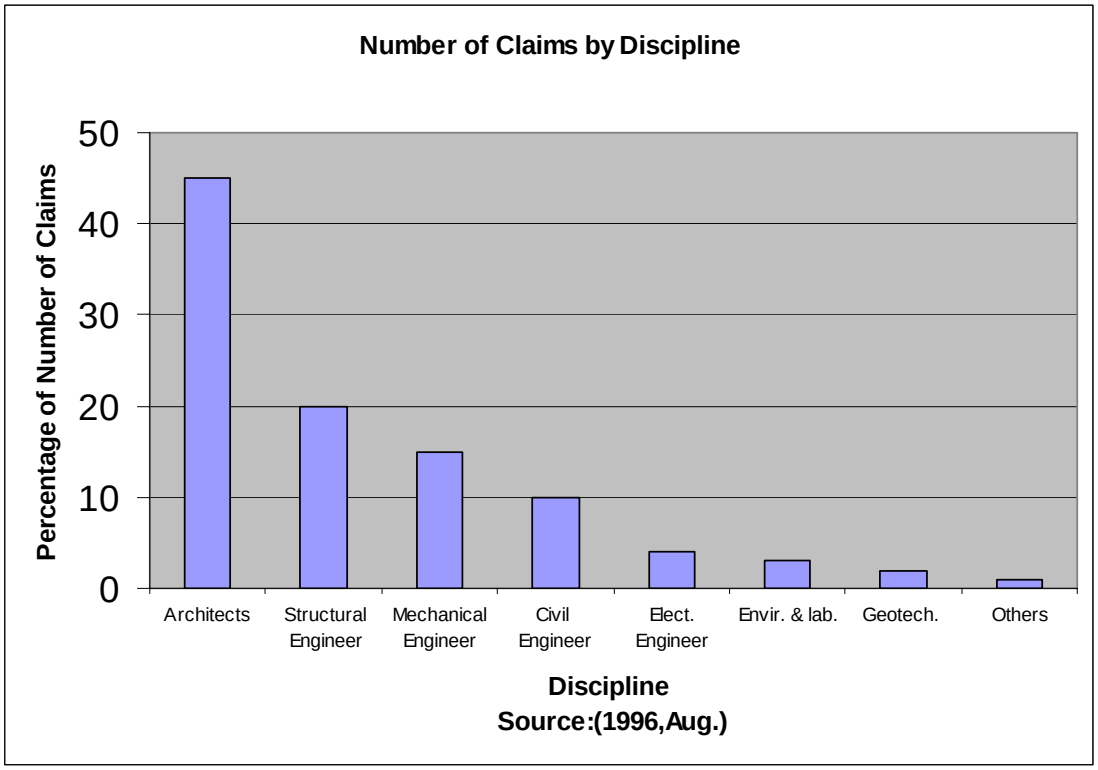


Figure 10 give indication that architect is almost 45% of total claims while geotechnical and environmental are the lowest percentage. This is because of focal position of architect in the process of construction stages.



Based on the analysis of the above study, we realized the importance of professional liability. The designer should protect himself from injuries occur during the construction stage.

The boundary of professional liability

Project Responsibility

Design and construction discipline has been defined by state of licensing and registration laws. By defining disciplines of each design and cons ruction takes place the border of their work. The border are fortified contractually and positioned by standard of practice (2). Distribution of

responsibility is quit difficult especially between structural engineer and architect.

As per revised version of Association General Contractor (AGC), endorsed a "General Conditions of the contracts for Construction", grant more amount of liability to the contractor for certain design detail. It is logical because the contractor has more control of construction worker, schedule and work methods.

Design liability and Safety

In the past, the design professional has not address construction site safety in the scope of work. Thus, it because inadequate education or training a safety instruction is not fully addressed in the scope of work. Also, they don't have enough authority to let worker implement safety.

Presently, availability of computer based data base help designer to be familiar with safety necessary which should be applied in construction environment.

The designer tools on computer disks through Construction Institute (CII) indicate design professional can participate in preventing construction site safety and fatalities.

An understanding of how implementation of the knowledge will effects owner's legal duty toward ensuring jobsite safety , and towards liability assumed for worker injuries, will greatly influence the willingness of designers to implement the knowledge (2). When accidents occur in the

construction site, a question raise whether it can be linked to the designer be held accountable or not. As per Fig. 2 indicate that it depends on the standard of practice and whether design knowledge was implemented or not.

Fig2.Designer Liability for Worker Injuries or Fatalities

	Safety knowledge implemented	Safety knowledge Not Implemented
Not Standard Practice	**Not Liable**	Liable
Standard Practice	Not Liable	Liable

Source: (1998, Sept.)

Implementation of safety knowledge

Question arises as to whether acted with reasonable care and stayed within boundary of current standard for particular design profession. Designer liability can be ascertaining by evaluating the relationship between use the design-for safety knowledge and whether use of this knowledge constitute a standard practice for the profession The figure show a designer's liability exposure if injury or fatality can be connected to implementation or non-implementation of safety knowledge.

The fist case is using design safety knowledge that is not part of the current standard of practice for design profession. For example, if designer include holes in the column webs at 21in and 42in above the floor level to provide support location for guardrails and lifeline will not reflect standard practice of structural design. As a result, by adding this feature to the column, a designer crosses the boundary between the design and construction. So, in case of an

injury or fatality occurred, the designer cannot be claimed if the accent can be linked to use of the holes for guardrail.

Limitation of professional Liability

Date of Completion of Work

There are two mains statutes of limitation as applied to design professional (civil engineer) negligence. This fist one is based on the date of completion the work that can be extended up to 10 year as per California law. Although statutes vary from state to state but the most of states laws are similar to California. The limitation depends on type of injury defect whether they are property damage or personal damages. It depends also on the nature of defects whether latent or patents. Personal damages are injuries including emotional distress and death of the persons. Property damage consists of physical damage to structure.

Latent defect which is defined as a deficiency that apparent by reasonable inspection (Code of Civil procedure, section 337.1).There is no limit for personal injuries caused by latent defects as indicated on Table 1. Statutes of Limitation Based on Date of Completion of Work.

Damage due to following type of deficiency	**Personal Injuries**	**Property damage**
Patent	4 yrs after substation	4 yrs after substantial completion
Latent	No statutes of limitation	10 yrs after substantial completion

Source :(1996, April)

Date of occurrence of injury

The second statute of limitation is focused on the date of occurrence of the injury or damage. Some accidents are easy to determine accrual date, like the sudden collapse of an apartment house. However, there might be some difficulty to determine accrual date like a person gets disease from asbestos exposure.

Table 2. Statute of Limitations Based on Date of Damage

Personal Injuries	**Property Damage**
1 yr from accrual	2 yrs from accrual

Source: (1996, April)

Conclusion

This report presented a brief idea about professional liability. The importance professional liability insurance came as results of claims due to patent and latent defects as we have seen in claims analysis for AEIC on 1987. Statues of limitation are based on either completion of work or date of damage. The period at which designer is legally sued for his error and mistakes are 10 years as per California laws.

Another area discussed is the boundary between the design and construction in which designer is held liable for accidents occur during construction stage. Implementation construction safety concern through design stage will prevent injures and fatalities, and it will reduce the possibilities of involving third party.

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