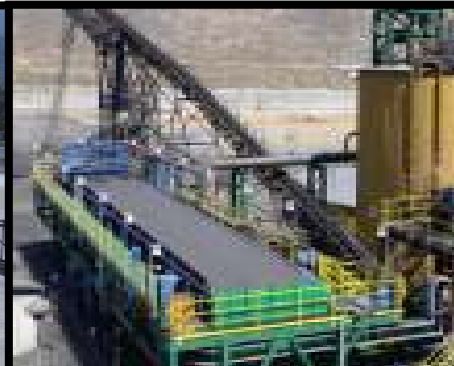


BATEMAN

Bateman Engineering N.V. ECRI Insurance Presentation:

Principal Controlled Insurance Programme

Contractors View: Introduction to Insurance & Risk Sharing



Introduction

Since antiquity, mankind has developed and enhanced technology in a never-ending process of experimentation, rejection and improvement.



Kamativi Tin Mine, Zimbabwe (circa 1960s).

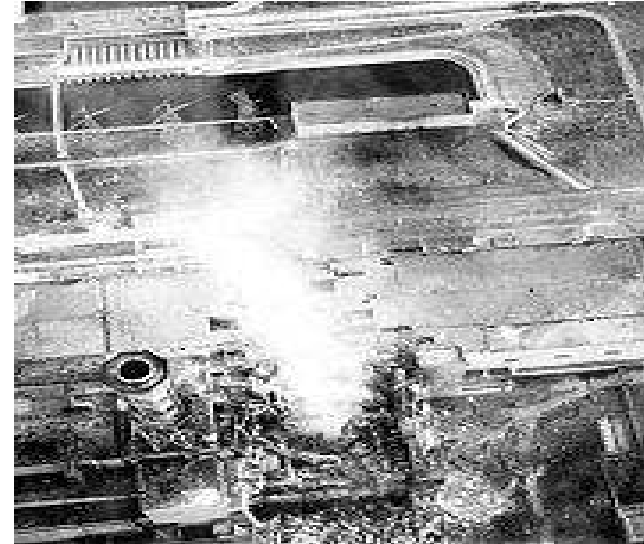
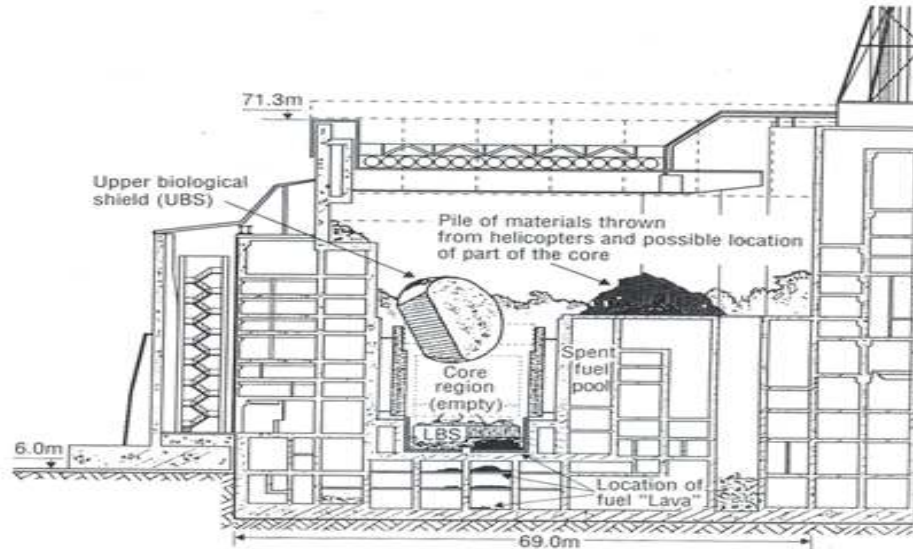


Today, people can sense the opportunities and risks associated with the age of information. The confusing variety of technical possibilities, in the everyday working world and in the private sphere, both fascinates and disconcerts them.

- ❑ As technology development progresses, the world is facing a difficult conflict: On the one hand, in view of limited natural resources and the growing threat posed by environmental damage, uses of technology, and even technology itself, are no longer accepted unconditionally, but are subject to critical examination.
- ❑ On the other hand, without the use of modern technology, it appears impossible to anywhere near satisfy the needs of a constantly growing world population.

Crises and Catastrophe's

Failure of technical systems was usually a result of insufficient technical knowledge, of a lack of responsibility in handling technology, or even of people being overtaxed by technology.



Aerial view of the damaged core following the 1986 Chernobyl Nuclear Disaster . Roof of the turbine hall is damaged (image centre). Roof of the adjacent reactor 3 (image lower left) shows minor fire damage.

From the middle of the 19th century onwards, classical insurance sectors, such as third party liability and fire insurance, were willing to partially cover the new kinds of risk arising from the operation of technical facilities, in order to make the potential consequence manageable in financial terms.

The execution of increasingly large and complex engineering projects led to an increase, not only in the need for insurance, but also in the demands imposed on the professional expertise of the insurers.

Brief on E.A.R/C.A.R development as and Insurance product over time.

Shortly after World War I - and mainly because of the instability of the currency resulting from the hyperinflation in the fateful crisis year of 1923 - the capital goods industry began to look for the most comprehensive insurance protection possible against risks to the calculated earnings of the contracting companies and their suppliers during the construction of technical facilities. This demand was met by erection all risks insurance (EAR) product, which was launched in 1924.



The first record of insurance specifically for building structures, contractors' all risks insurance (CAR), dates back to 1929 and the construction of Lambeth Bridge over the Thames in London.



The insurance terms and conditions were derived from erection all risks insurance, with which the companies had already acquired ten years of experience.

A new Challenging Environment

The Questions then are:

What do we, as the engineer, contractor and/or Principal need to address commercially, and,



How the respective parties manage the Insuring relationship on Large Complex Engineering project, in order to mitigate our respective risk and Insurable losses?

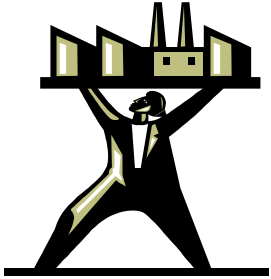
A new Challenging Environment

The changing nature of projects bring challenges to, Clients, Contractors and Insurance Industry:



- # An increasing number of large-scale projects,
- # Insurance costs on major projects becoming increasingly significant.
- # Increasingly complex projects, e.g. phased hand-over, multi-contract and turnkey projects, etc., rendered the traditional structure of contracts and risk transfer obsolete.
- # Ever more remote locations and new state of the art designs
- # Third world countries, stipulating insurance cover
- # Technology advancements have increased the inherent design risk equally proportional.

Project Insurance needs and Clients Expectations



Project Specific Owner Controlled Insurance programme are strongly recommended for large civil engineering projects,

The parallel here needs to be drawn between Property and Sectional Hand-over vs Sensation of the Construction risk and C,A,R policy –



Clients want to achieve their desired objectives, i.e. cost, time and quality.

Project Insurance needs and Clients Expectation Management process –

– Risk

Clients are the first party to conduct the risk management process and involve contractors during the design construction stage or at an earlier stage according to the procurement method.



For example, construction and design would involve contractors from the design stage.

From clients' perspective, the risk management process should start from concept to the handover to users.



The clients of the industry ultimately pay the bill and it is important to understand their needs and expectations.



Project Insurance needs and Clients Expectations – Main risks –

Main risks faced by Contractor can be:



- Failure to fund
- Failure to make progress payments
- Extra government administration cost
- Country Risk – Political Changes, land acquisition risk
- Client-furnished materials not available, lead times on equipment
- Major changes in requirements
- Interference among parties; and project delay.



These risk factors can lead to fears such as increasing cost, faulty projects and frequent repairs, abandoned project and wasting investment.



Which party should carry the Construction Insuring Risks and at what cost?

There are many parties involved in the construction industry including:

- clients,
- contractors, subcontractors and suppliers,
- Financiers and Insurers etc.



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Different parties involved in a project, frequently have different perspectives on the risks according to their own background and benefits.

- Principals/Clients might be primarily concerned with the risk of the project not being finished on time and exceeding the allocated budget
- Contractors focused on making a profit out of their work on the project
- Workers concerned with the health and safety aspect of their day-to-day working environment and the risk of having accidents and suffering ill health

In addition, some risks are peculiar to one party and some shared with other parties. All which could result in the break up of the project team.

The risk is best placed with that party involved in the management of a project who is best able to manage the factor which gives rise to it

Construction Contracts as a legal instrument

A Construction Contracts is a legal instrument to allocate the risk responsibility between parties (client and a contractor).

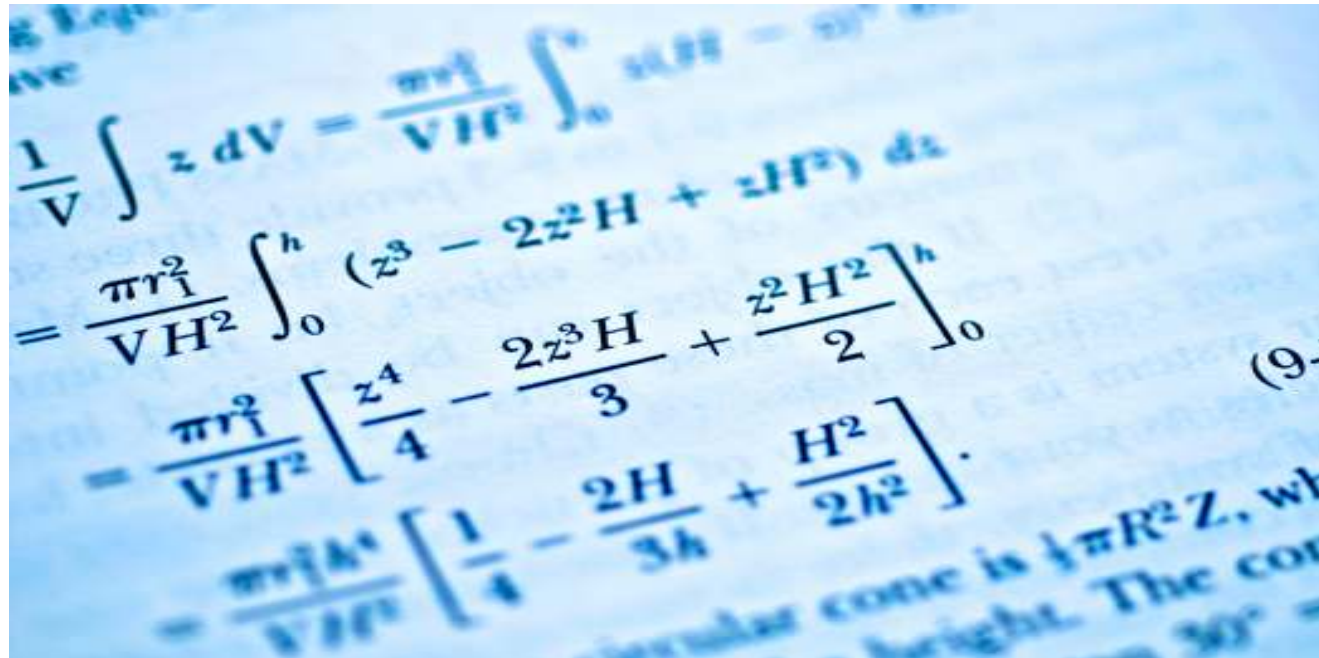
It not only specifies how risks are allocated, but also obliges the contractor and or client/principal to insure the works and or its property against loss or damage.



Standard conditions of contract govern the relationships between parties, set out the responsibilities for the risks of loss or damage to the works during construction, and embrace the clauses regarding the obligations to insure.

Construction Contracts as a legal instrument

Professional associations and institutions have proposed standard forms of contract, such as New Engineering Contract (NEC) system of documents, the Federation Internationale des Ingenieurs (FIDIC) conditions of contract.



Each standard form of contract, plus any special additional clauses inserted specifically for the project concerned, must be assessed to determine which party is responsible for what risks, what indemnities are required, what supporting insurances are specified and which are needed, and what deductibles are permitted or achievable.

Construction Contracts as a legal instrument

Moreover, construction involves a complex array of interrelationships among the parties working on a project, and details various types of property as well as numerous ownership interests.

Clients and Contractors should ensure that their Contractual Agreements are written in line with their interests, insurable risk and responsibilities to ensure enhanced project completion success and sustainable business.



Both Contractors and Clients can achieve the correct allocation of risks and responsibilities expressed in their Agreements and use Insurance as a risk transfer tool, which is a major and critical part of an integrated risk management system.

Construction Contracts as a legal instrument

Basic essentials to consider here are:

1) Assessment of risks and needs

Insurance policy needs to be specially designed according to the nature of project, the types of procurement and construction contract. In this respect, contractors should be innovative and have the ability to negotiate with the Clients, it's brokers and insurers improved conditions of insurance.

2) The right broker, insurer and the appropriate insurance policy

Insuring Parties and their brokers are expected to be familiar with a wide range of construction insurance policies and should also be aware of the quality of the various insurers in respect of their financial strength / claims paying ability and market reputation.

The quality of an insurance programme can only be tested when the insurer is called upon to pay a justifiable claim.

3) Underwriting and claim settlement:

- Understand how insurers view the construction industry and developing technology;
- Maintain a good relationship with brokers and insurers who is qualified in construction insurance products;
- Implement effective risk management system, safety management programme and quality control to alleviate risks;
- Maintain a good track record on their performance over the years;

Conclusion

Sound co-operation should be achieved between all parties since they all share the identical objective of successful and scheduled project completion without losses and within budget.

This is where we identified 2 specific area's of potential Un-insured losses and or opportunities where the Contractor , Principal and or Client's have risk and or can mitigate potential Financial disasters.

- 1) Erection/Constructions all risks insurance, designed to cover physical loss or damage during the erection and testing of facilities,.
 - a) There is however a need for insurance to cover the risks, the Owner and or Principal will have to bear under an Industrial/Property/Asset Insurance after handing over the property especially, in the event of Sectional Completion and or Beneficial use.
 - b) This risk is not born by the Contractor and if the structure of contracts (both Commercial and Insurance do not follow) and or address risk transfer , losses following is potentially Crippling.
 - c) A provision in terms of the PCI works policy for loss of revenue in the event of a "Grey" handover process might be a solution as the claim might fall between the works and the principles assets program leaving the principle without revenue protection.

Conclusion

As we know or not, property insurance has been supplemented by the corresponding financial loss insurance, named:

- Advance loss of Profits insurance (ALoP) or
- Delay in start-up (DSU) insurance.

Generally the Contractor will not enjoy direct cover under this class of the Client/Principal insurance however the cover, benefit and applications have to be understood and any potential cross benefit considered commercially.



I now hand you over to Mr. Mark Venables –Executive Director of Construction from Lockton Companies International Limited - Specialist Insurance brokers to present the Insurance market Technical review and capability aspects on the issue of:

Risk Sharing and Insurance between:

- Construction and Sectional Hand-over, &
- Consequential loss following Construction Losses