

Conference: Quantifying and Evaluating Damages and Risks in The Oil Field





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#### Introduction

The oil and gas industry is considered one of the most important global industries and plays a vital role in meeting global energy needs. However, this sector is associated with significant risks and challenges in terms of safety and environment. The conference Inventorying and Evaluating Damages and Risks in the Oil Field is about examining and analyzing these risks and providing tools and methodologies to deal with them efficiently.

# Objectives of the conference:

At the end of this conference, Participants will be able to:

- Provide a deep understanding of the risks and challenges facing the oil and gas industry.
- Learn to analyze and assess potential risks and potential harms.
- Providing participants with tools and methods to make strategic decisions that deal with risks.
- Promote awareness of the importance of adhering to environmental and security standards in this field.
- Provide participants with the necessary skills to develop effective emergency plans and deal with emergencies.

#### Targeted Audience

- Security and safety managers in oil and gas companies.
- Environmental and safety engineers.
- · Occupational health and safety officials.
- Planning and risk management officials.
- Professionals and experts in the field of oil and gas.
- Students and researchers interested in the field of oil and the environment.

#### Conference Outline

#### Unit 1: Introduction to safety and environmental matters in the oil industry

- The importance of the oil and gas industry and its impact on the global economy and energy needs.
- Major safety and environmental challenges and exposure to major risks.
- The applicable national and international legislation and standards to ensure safety and preserve the environment.

## Unit 2: Analysis and evaluation of risks and damages

- The concept of risks and damages and the factors affecting their escalation.
- Various risk analysis methods, including quantitative and qualitative risk analysis.
- Use advanced techniques such as HAZOP analysis and risk estimation modeling techniques.

#### Unit 3: Strategies for dealing with risks

- Fundamentals of designing safe systems and preventive measures to reduce risks.
- Applying the concept of "safe engineering" in the design and operation of facilities.



 Use Fault Analysis, Operations and Maintenance FMEA and Incident Effective Forms Analysis EFA techniques in risk analysis.

## Unit 4: Commitment to environmental and security standards

- The role of international standards and local laws in improving the safety and security of the oil industry.
- Companies' commitment to environmental sustainability standards and how to reduce the impacts of operations on the environment.
- Case studies of successful projects implemented in accordance with environmental and security standards.

## Unit 5: Emergency Management and Response

- The importance of developing effective emergency plans to deal with accidents of leakage, explosion and fire.
- Carrying out exercises and simulations to ensure that teams are ready to deal with emergencies.
- Evaluate performance after an emergency and use lessons learned to improve future response strategies.