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## PETROLEUM ENGINEERING AND NATURAL GAS RECOVERY

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**Oil and gas offshore safety case (risk assessment)****Tegwan Nyonga Hubert**  
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**Hazard Identification, Risk Assessment and Management of Risk:** It is one example of the offshore oil and gas construction and operation projects objectives to ensure that all its activities are managed in a manner that ensures the health and safety of all personnel and protection of the environment. The report mainly focuses on clarifying the safety requirements in oil and gas industry. According to previous study and research report, everyone never knew to mention the requirements of safety in the industry. This report mainly focuses on industrial safety. This is achieved through the management of risks resulting from:

- Major accident hazards, which have the potential to affect a significant proportion of the offshore workforce and the integrity of the installation itself.
- Hazards resulting from the company's day to day operational activities.
- Occupational health hazards relating to the working environment. The following sections describes the management of the risks associated with these hazards.

**Management of Major Accident Hazards:** All major accident hazards associated with activities involving the process have been assessed and are summarized within the Safety Case. A combination of qualitative and quantitative analysis has been used to assess the consequences and likelihood of such hazards. The nature, likelihood and consequences of potential major accident hazards have been developed by external risk specialists. This has allowed for the identification of technical and operational risk reduction measures that reduce the probability of a major accident or minimize their consequences should they occur. The ALARP levels (required standards) are set out in terms of the arrangements that are already in place and the remedial actions that have been identified and considered necessary to achieve an acceptable baseline of safety. It is essential to assess each worksite and job from the standpoint of practical knowledge of the tasks to be undertaken, the equipment to be used and the skills required. This is a risk assessment but, when carried out for a particular worksite task, it becomes task specific and is termed a Job Safe Analysis (JSA). The JSA documents the analysis of a task based activity focusing on the safety critical aspects and controls and clearly identifies:

- Hazards encountered within a job.
- Safety equipment (including LSA) required when doing the job.
- Control measures to reduce and control the risks from each hazard.

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**Notes:**