

Samaporn Inchonjiw 2014: A Study of Majors Accidental Factors for Workers in Offshore Exploration and Production. Master of Engineering (Safety Engineering), Major Field: Safety Engineering, Faculty of Engineering. Thesis Advisor: Associate Professor Kiatkrai Ayuwat, M.Eng. 112 pages.

The research objectives are: 1) to identify and study the key factors resulting in accidents, and 2) to set up measures for proactive accident prevention, including specific activities designed to reduce the causal conditions and effects of accidents. The instrument used for the study was a questionnaire completed by 281 respondents from the sample group which included workers on offshore exploration and production platforms. The data analysis tool was SPSS for Windows which was used to gather and analyze data and generate key statistics related to accident factor frequency, percentage, arithmetic mean, standard deviation, and One-Way ANOVA.

The research findings revealed that the most common factors resulting in accidents were location of machinery and layout design ($\bar{X} = 2.947$), the effectiveness of the management and safety management system ($\bar{X} = 2.675$) and worker knowledge and behavior ($\bar{X} = 2.342$). Comparison of various personal factors causing accidents, including age, work experience and position, indicated differences at the statistically significant .05 level. Based on these research findings, it is recommended that petroleum companies operating offshore take actions to reduce the risk of accidents, including reviewing and possibly modifying the schematics or design layout of their work areas to relocate critical equipment to safer and more secure areas.

Student's Signature

Thesis Advisor's signature

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