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| Title | Effective design of workplace risk communications |
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| Executive summary | <p>In the aftermath of the piper alpha disaster in 1988 and the subsequent public Inquiry and recommendations proposed by lord cullen in 1990, there have been legislative changes and a renewed commitment to safety by oil and gas companies operating on the uk continental shelf. Part of this process involves the submission of 'safety cases' for all offshore installations to the health and safety executive. The details vary according to the type of installation and the operations it carries out but as a minimum a safety case has to demonstrate that:</p> <ul style="list-style-type: none"> • The management system is adequate to ensure compliance with statutory health and safety requirements; • Adequate arrangements have been made for audit, and the preparation of audit reports; and • All hazards with the potential to cause a major accident have been identified, their risks evaluated, and measures taken to reduce risks to persons to as low as reasonably practicable'(hse, 1992, p. Viii) <p>This project examines workers' perceptions of risk and safety on ukcs installations and it has been sponsored by amerada hess, british gas, bp, conoco uk, elf enterprise, total oil marine plc and the offshore safety division of the uk health and safety executive. The study was designed to complement the extensive quantitative risk assessments (qra) that have already been carried out in the development of safety cases. Although qra presents 'objective' mathematical models based on statistical or estimated risk, most people rely on 'subjective' risk estimates or risk perceptions to determine whether the level of risk involved in an activity is acceptable or not. This report reviews some of the factors which are believed to affect human risk perception and, in particular, considers workers' thoughts and feelings about danger and risk on offshore platforms.</p> <p>The main objectives of the study are:</p> <ul style="list-style-type: none"> • To review the literature on risk perception with particular emphasis on risk perception and attitudes to safety in the oil and gas extraction industries. • To develop a measure for assessing offshore workers' perceptions of the type and severity of risks in their environment. • To describe the main types and severity of risks perceived by offshore workers in production, maintenance, drilling and services in a sample of six ukcs platforms and compare them with objective risk calculations for each platform. • To examine relationships between perceived risk, historical accident data and attitudes to safety in offshore workers on production platforms. • On the basis of the results make recommendations relating to (i) risk communication and (ii) the management of offshore safety. <p>During this project we have been collaborating with dr torbjarn rundmo of trondheim university who has been commissioned by the norwegian petroleum directorate to conduct a follow-up study to the study of risk perception in norwegian offshore workers that re carried out in 1989. This presented a unique opportunity for the research teams to work together in order to develop a research instrument which could be used concurrently thus producing two data sets which could be compared at a later date.</p> <p>The main literature review (mearns, 1 994) has been distributed to the participating companies. This chapter considers quantitative risk assessment (qra), the psychology of risk perception and risk communication. Chapter 2 reviews the</p> |

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| | literature on risk perception and attitudes to safety in offshore workers. The method and the results are outlined in chapters 3 and 4 and the discussion and recommendations are presented in chapters 5 and 6. |
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