

## ABOUT US

PNA is an independent consultancy focused on providing safety, risk and reliability services and solutions covering the various phases of a project including feasibility and concept development, design, construction, installation, hook-up and commissioning, operation and decommissioning.

## OUR SERVICES COVER THE FOLLOWING AREAS :

### Hazardous Area Classification

Process Hazard Analysis

Asset Selection & Utilisation

Formal Safety Assessment

Quantitative Risk Assessment

Regulatory Compliance

Consequence Analysis

Hazard Identification

Business Continuity Plan

Health Risk Assessment

Process Safety Management

## INTRODUCTION

Quantified Risk assessment (QRA) is a technique to evaluate risk, whether Human financial or environmental, arising from a particular "hazardous" Activity . Following the Piper Alpha accident, QRA is being applied extensively in the offshore oil and gas industry where it is a key tool used in the assessment of the "living" safety case for offshore installations. The technique is being increasingly applied to installations onshore under the CIMAH regulations.

QRA addresses potential hazards arising from activities on or associated with the installation, or associated with the installation, or from external events with the potential to affect the installation, personnel or the surrounding environment. All relevant modes of operation and activities need to be considered.

QRA involves identifying, assessing and ranking the potential hazards for a particular situation in order to allow judgments to be made about the acceptability of the associated risks:are they tolerable or so small that they may be considered acceptable? How can risks be reduced to a level which is 'as low as reasonably possible'( the ALARP Principle) QRA studies are carried out to a sufficient level of detail to provide confidence in the assessment.

## OBJECTIVES

Main objectives of conducting a QRA is to demonstrate that the potential major hazards of the installation have been identified and have been examined as to the potential threat they pose to the installation, its personnel and the environment. It should also demonstrate that the safeguards provided are adequate .

This philosophy is the basis of the regulatory framework within both Europe and Asia Pacific for safety, both onshore and offshore. QRA assessment of the TR facilities on an offshore installation is now mandatory, with a demonstration that risk levels are ALARP also being required.



## CONTACT DETAILS

Email : [info@pnarisk.com](mailto:info@pnarisk.com)

Website : [www.pnarisk.com](http://www.pnarisk.com)

Kuala Lumpur, MALAYSIA

PNA Risk Management Sdn Bhd (665518-W)

D3-1-2, Block D3

Dana-1 Commercial Centre

Jalan PJU 1A/46, 47301 Petaling Jaya

Selangor, Malaysia

Tel : +60 3 7842 6521

Fax : +60 3 7842 6499