

# Oil and Gas and Process Industry Quantitative Risk Assessment (QRA)

## **Purpose**

The purpose of this module is to enable students to understand and apply QRA techniques with particular relevance to the oil and gas and process industries. Students will be given an opportunity to conduct QRA for example oil and gas and process facilities. The module also covers risk criteria, application of the ALARP principle, sensitivity analysis and cost benefit analysis.

## **At the end of the course you will be able to**

1. Design QRA models incorporating appropriate input data and assumptions
2. Use QRA to analyse the risk to personnel
3. Compare QRA results with criteria and use to devise and evaluate potential risk reduction measures

## **Outline content**

- Introduction to QRA
- Identify release scenarios
- Frequency assessment
- Event trees
- Consequence modelling (including immediate and time-dependent effects)
- Risk analysis
- Non-process hazards
- Risk criteria
- Sensitivity studies
- QRA software

## **Recommended prior study**

Education, skills or experience equivalent to undergraduate level

## **Who should attend**

Managers, engineers, HSE advisors and risk management practitioners.

## **Delivery Methods**

Face-to-face, Distance Learning, or Blended Learning

## **Levels of Assessment**

- Attendance only
- Assessment by Risktec
- Risktec Professional Qualifications
- Postgraduate Qualifications: PgCert, PgDip and MSc

## **Assessment details**

Postgraduate programmes: activities and assignment (total about 80 hours)

RPQ programmes: assignment (about 15 hours)

## **Module details**

Level	Masters/RPQ
Duration	2 days (F2F), 8 weeks (Postgraduate or RPQ DL)

## **Price**

For prices and further information, or to book a course, please contact **Vicky Billingham** at [training@risktec.tuv.com](mailto:training@risktec.tuv.com)

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