

Engineered Risk Control Systems (Oil and Gas)

Purpose

This module provides an understanding of engineered risk control systems and the need for setting performance requirements, as well as assuring and verifying actual performance throughout an asset's lifecycle.

At the end of the course you will be able to

1. Analyse process plant to logically deduce relevant Engineered Risk Control Systems (ERCs)
2. Devise performance requirements/standards of ERCs
3. Illustrate how ERCs contribute to sustaining technical integrity over the lifetime of an asset

Outline content

Introduction to ERCs

- Major accidents due to failure of ERCs
- Examples of ERCs

Identification of ERCs

- Choice of approaches
- Barrier analysis

Criticality ranking

- Criteria and ranking methods

Performance standards

- FARSI (Functionality Availability Reliability Survivability & Interdependence) requirements
- Management of change

Performance assurance & verification

- Performance assurance & verification during projects and operations
- Managing failures and degradation
- Verification and written schemes

Performance monitoring

- Leading & lagging KPIs

Integrity throughout facility lifetime

- Design, technical and operating integrity

Recommended prior study

Education, skills or experience equivalent to undergraduate level

Risktec module: *Principles of Risk Management*

Who should attend

Managers, discipline engineers, operators and HSE professionals required to identify ERCs, develop performance standards and verification schemes and implement performance assurance tasks.

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)

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

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