

Essential nuclear safety training

Fundamentals of Nuclear Safety

3–7 November 2014, Preston, UK

Recent and historical incidents have highlighted the importance of having a clear understanding of the principles of process safety management throughout an organisation. This needs to include staff at all levels from board members through engineers and other technical staff to plant and shift managers and supervisors. This intensive course covers the fundamentals of process safety, related to nuclear facilities and aims to provide an understanding of the key principles of safety.

Learning outcomes

- understand the hazards of the nuclear industry and how the risks can be controlled
- be aware of and understand the key factors influencing the basis for nuclear safety
- understand the key nuclear safety requirements at each stage in the life cycle of a nuclear plant from conceptual design through to operation, maintenance and modification
- understand the consequences of poor nuclear safety
- understand the ways in which their work depends on the knowledge and expertise of others (ie interdependency and the need for overall organisational nuclear safety management competence)
- understand their own limitations and know how to acquire further knowledge and understanding of nuclear safety management
- need for understanding of the safety case and how it should be the basis of decisions
- importance of authority and accountability
- metrics needed to demonstrate compliance

Delegates who pass the assessment will receive an IChemE pass certificate in the *Fundamentals of Nuclear Safety*.

Who will benefit

- managers, supervisors, engineers and others involved in all parts of the nuclear industry
- chemical engineers and scientists en route to achieving chartered status
- anybody else, including safety personnel, who would like to develop an understanding of all aspects of safety related to the nuclear industry: safety case authors, internal inspectors, safety analysts and regulators

Development of the course

The *Fundamentals of Process Safety* course was developed in 2008 to give an understanding of the key principles of process safety and its management. This course is now established and been presented in the UK, Asia and Australia. A version for the nuclear industry has been steered by an expert group of safety professionals with wide experience of best practice in organisations such as AWE, Springfield Fuels, Energy Solutions, Rolls-Royce, ONR and Cambridge University.

The 2014 course has been completely revised based on feedback from previous courses and now incorporates more nuclear specific material and case studies. It links the various stages in safety analysis with the requirements of the ONR safety cases.

Course outline

Day 1

- importance of safety management
- model for process safety management
- safety culture
- management systems

Day 2

- regulatory framework
- nuclear safety case purpose, content and role
- hazard identification
- risk assessment and cost benefit analysis
- nuclear hazards

33.75 hrs

Maximum duration for CPD recording

Day 3

- key hazards and basic science
- safety assessment principles
- engineering safely (including inherent and design safety)
- design basis accidents including internal and external hazards

Day 4

- human factors
- operations
- management of change
- severe accident analysis and emergency response
- course review

Day 5

- multi-stage case study
- assessment

Course presenter

Bob Skelton, MA CEng, FIChemE, FINucl, MIMechE

Bob graduated in chemical engineering from Durham University (King's College Newcastle). He has over 30 year's experience in the process plant contracting industry. A lecturer in engineering, Magdalene College, Cambridge and a retired lecturer in chemical engineering. Bob still lectures in nuclear engineering to MEng and MPhil student and supervises undergraduates in a variety of general and chemical engineering disciplines including process safety.

He is assisted on the course by a recently retired superintending inspector from ONR, and a retired ex ICI senior process safety manager and former chair of the European Centre for Process Safety.

In-company training

If you have several colleagues interested in this course, why not consider running it in-house?

For a quote or to discuss your requirements contact courses@icheme.org

Venue

Best Western Premier Leyland Hotel
Leyland Way
Leyland
Preston
PR25 4JX, UK

Tel: +44 (0) 1722 422922

www.bestwestern.co.uk

Fees

IChemE member	£1575 + VAT
Non-member	£1760 + VAT

Discounts

Discounts are available to companies booking more than one place:

2 places – 5% discount

3 places – 10% discount

4 or more places – 15% discount

Multiple places must be booked at the same time to qualify.

How to book

Register online at www.icheme.org/fns

Complete and return the booking form by email to ar@icheme.org or by fax to +44 (0)1788 560833

More details

Visit: www.icheme.org/fns

Tel: +44 (0)1788 534431

Email: courses@icheme.org

Accommodation

Accommodation is not included in the delegate fee. If you need any help with booking a hotel, contact our agent, Trinity Conferences on +44 (0)1780 484050. Remember to quote IChemE when booking.

Registration form

Fundamentals of Nuclear Safety

Complete this form and return it by email to ar@icheme.org or by fax to +44 (0)1788 560833

I wish to book a place on the *Fundamentals of Nuclear Safety* course on 3–7 November 2014 in Preston, UK

I am a member of IChemE: Yes No membership number:

Last name:

First name:

Title (Dr/Mr/Miss/Mrs/Ms/Prof/Eur Ing): Gender: Male Female

Work details – company:

EC VAT registration number:

Job title: Department:

Country: Post/zip code:

Address:

Town/city: County/state:

Direct telephone: Direct fax:

Email (for pre-course correspondence):

Data protection

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Method of payment (payment must be received in full before the event date otherwise admission cannot be guaranteed)

Cheque enclosed (made payable to Institution of Chemical Engineers)
Send to IChemE, accounts department, Davis Building, Railway Terrace, Rugby, Warwickshire, CV21 3HQ, UK

Debit my credit/debit card: (payment in £ sterling only):

Cardholder name (as it appears on the card):

Billing address (if different from above):

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Cardholder's signature: Telephone number:

Visa Visa Debit MasterCard UK Maestro Solo AMEX

Card number:

Valid from date: / Expiry date: / Issue number: CVC code:

(3 digits on reverse of (debit card only) card or 4 digits on the front of AMEX)
This is mandatory for VISA and MasterCard

Invoice my company quoting purchase order number:

IChemE is a registered charity in England and Wales, and a charity registered in Scotland (SC 039661)

IChemE offices in Kuala Lumpur, London, Melbourne, Rugby, Singapore and Wellington

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Please note that a registration cannot be processed unless a copy of your purchase order is received with your registration form. Your booking will be confirmed by IChemE on receipt of either: an official purchase order or cleared funds. By submitting this form you have agreed to our terms and conditions and cancellation policy. Terms and conditions are available at: www.icheme.org/terms

Cancellation policy

Cancellations received in writing 28 days prior to the event will be subject to an administration charge of 10% of the fees plus VAT. No refunds will be given for non-attendance or cancellations received less than 28 days prior to the event. Substitutions are welcomed at any time. We reserve the right to cancel or alter the programme.

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