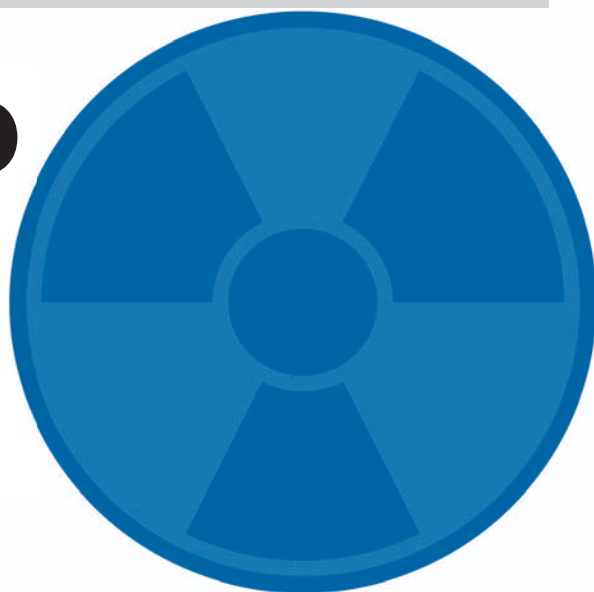


# Background to Radiological Protection Seminar



Applying RP principles to reduce health, safety and environmental risks

Wednesday 25 – Thursday 26 January 2012  
Prospero House, London, UK

An opportunity to learn in-depth about

- Application of **practical instrument selection**
- **Risk assessment** and **hazard control**
- Understanding and implementing **emergency planning** and **recovery measures**
- **NORM** and its impact on nuclear and non-nuclear industries
- Environmental radiation and application of **best available techniques**

## Your radiological protection expert lecturers include:

### Keith Pearce

Strategy Lead for Emergency Planning  
**Magnox Limited**

### Pete Burgess

Principal Consultant, Radiation Metrology  
**Nuvia Ltd**

### Phil McNamara

Dangerous Goods Safety Advisor  
**EDF Energy**

### William Vaughan

Environmental Adviser  
**Urenco UK Ltd**

### Dr David J. Thomas

Group Leader - Neutron Metrology  
**National Physical Laboratory**

Hear what past attendees have to say about IBC Energy's Radiological Protection Summer School...



*Excellent event – fully met expectations for refresher training*  
**A Moodie, EDF Energy**

*Very well organised with a good variety of speakers. A good mix of delegates which was a good networking opportunity*  
**J Atkinson, PIR/RSR Regulator, EA**



For the latest information and to register, visit:

**[www.ibcenergy.com/radprotection](http://www.ibcenergy.com/radprotection)**

or phone: **+44 (0)20 7017 5518** Email: **[energycustserv@informa.com](mailto:energycustserv@informa.com)**

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# Background to Radiolo

This comprehensive two day seminar is designed to bring together both nuclear and non-nuclear industry beginners to learn the basics of radiological protection including:

- How does radiological protection apply in every day
- Evaluating the control of hazard and risk
- Analysing the practical measures for dealing with NORM
- Outlining quantities and units for exposure
- Assessing the basic fundamental principles in biology and genetics
- Monitoring natural and man-made sources

## Featuring:

**Quick fire exchange:** your chance to get to know fellow delegates better

### Practical workshops on:

- Emergency Planning
- Reviewing major incidents
- Understanding the best option for counter measures
- Recovery and reassurance monitoring

### Instrument Selection:

- Understanding definitions
- Selecting appropriate monitoring equipment
- Instrument ergonomics

## Who should attend:

- Radiation protection advisors and agencies
- Health protection agencies
- Government departments and agencies focused on
  - radiation
  - environment
- non-nuclear industries dealing with radiation including
  - mining
  - Phosphate
  - oil and gas
- Radiation protection and environmental remediation consultancies

## IBC Nuclear Events Promotional Opportunities

There are a number of sponsorship opportunities associated with IBC Energy's Nuclear Events giving your organisation the chance to demonstrate your expertise, products and services in line with the training course objectives.

For further information or to discuss individual requirements, please contact **Lauren Wilcox** on **+44 (0)20 7017 7674** or e-mail **lauren.wilcox@informa.com**

## Day 1 - Wednesday 25 January 2012

08.30 Registration and coffee



09.00 **Chairman's welcome and quick fire exchange**

Take this opportunity to introduce yourself and learn about your peers. The course objectives will be outlined at the end of this session.



### What is radiological protection and what do you need to know?

09.15 **Understanding the fundamentals of radiological protection**

- Monitoring the key aspects of radiological protection
- How does radiological protection apply in every day
- Adhering to radiological protection legislation

10.15 Morning tea

### Practical instrument selection

10.45 **Understanding instrument selection**

- Analysing the purpose of monitoring
- Understanding radiation sources
- Learning how to select the appropriate monitoring equipment
- Understanding instrument ergonomics

**Pete Burgess**, Principal Consultant, Radiation Metrology, **Nuvia Ltd**

11.45 **Instrument selection**

This workshop will teach you the key aspects and practical application of instrument selection  
**Pete Burgess**, Principal Consultant, Radiation Metrology, **Nuvia Ltd**



12.45 **Discussion session with course leaders on instrument selection**

Your chance to ask questions and discuss specific issues raised during the sessions



13.00 Lunch

### Risk and emergency: assessments and contingency planning

14.00 **Evaluating risk and risk assessment**

- Understanding the concepts of hazard and risk
- Identifying hazard and risk
- Evaluating the control of hazard and risk
- Explaining the safety justification

15.00 **Discussion session with course leaders on risk and risk assessment**

Your chance to ask questions and discuss specific issues raised during the sessions



15.15 Morning tea

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or phone: **+44 (0)20 7017 5518** Email: **[energycustserv@informa.com](mailto:energycustserv@informa.com)**

# Radical Protection Seminar

- 15.45 **Emergencies and contingency planning**
- Reviewing major accidents/incidents
  - Utilising contingency planning and preparation
  - Undertaking emergency organisation
  - Assessing countermeasures, recovery and reassurance monitoring

**Keith Pearce**, *Strategy Lead for Emergency Planning*, **Magnox Limited**

16.45 **Emergency planning**

This practical workshop is aimed at giving you hands on practical experience of emergency planning for your nuclear operations

**Keith Pearce**, *Strategy Lead for Emergency Planning*, **Magnox Limited**

17.30 **Discussion session with course leaders on emergency planning**

Your chance to ask questions and discuss specific issues raised during the sessions

- 17.45 Chairman's closing remarks and end of day 1

## Day 2 – Thursday 26 January 2012

- 09.00 Morning coffee



- 09.30 Chairman's opening remarks

### Understanding basics involved in radiological protection

09.35 **Understanding key definitions in radiological protection**

Understand some of the key definitions involved in the basics of radiological protection

09.50 **Environmental radiation**

- Assessing exposure to the public
- Explaining environmental transfers and exposure pathways
- Monitoring natural and man-made sources
- Managing planned and accidental discharges

**William Vaughan**, *Environmental Adviser*, **Urenco**

10.30 **Best Available Techniques (BAT)**

William will be talking about Urenco's recent experience of undertaking the process of applying BAT to a range of waste types

**William Vaughan**, *Environmental Adviser*, **Urenco**

- 11.00 Morning tea

11.30 **Natural radioactivity and NORM**

- Analysing the practical measures for dealing with NORM
- Exploring waste disposal options
- Dealing with NORM in nuclear and non-nuclear industry
- New developments in regulatory frameworks

**Pete Burgess**, *Principal Consultant, Radiation Metrology*, **Nuvia Ltd**

12.25 **Discussion session with course leaders on NORM and the environment**



Your chance to ask questions and discuss specific issues raised during the sessions

- 12.45 Lunch

13.45 **Safe transport of radioactive materials**

- Facing transport emergencies
- Monitoring radiation exposures
- Explaining the safety procedures involved

**Phil McNamara**, *Dangerous Good Safety Advisor (DGSA)*, **EDF Energy**

14.45 **Protection level dosimetry for neutrons**

- How neutron dosimetry differs from that for photons
- Quantities units and their implications for neutron dosimetry
- Just how good/bad are neutron dosimeters?
- Ways of improving neutron dose measurements

**Dr David J. Thomas**, *Group Leader - Neutron Metrology*, **National Physical Laboratory**

- 15.15 Afternoon tea

15.30 **Dose quantities for internal and external exposure**

- Outlining quantities and units for exposure
- Monitoring operational quantities of external radiation
- Explaining the technical principles of dosimetry
- Identifying quantities for internal exposure
- Examples of monitoring of internal exposure

16.15 **Basics of radiobiology and radiation genetics**

- Assessing the basic fundamental principles in biology and genetics
- Defining what is epigenetics?
- Potential implications of "new effects" for radiation standards
- Genetics or epigenetics as the basis for radiation (and other environmentally) induced disease?

17.00 **Discussion session with course leaders on dosimetry, biology and doses**



Your chance to ask questions and discuss specific issues raised during the sessions

- 17.15 Chairman's closing remarks and close of Seminar

### JOIN US ONLINE

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