

Predisposal & Characterisation of Radioactive Waste Course

Predisposal waste treatment,
conditioning, storage and
transportation

Monday 3 – Wednesday 5 December 2012
The Hatton, Hatton Garden, London



Come away from the course with an understanding of:

- ✓ **Waste reduction** techniques and processes
- ✓ First-hand **predisposal experiences** from industry experts including treatment of an AP1000 Site Radwaste Treatment Facility
- ✓ How to effectively manage **storage** of raw and **treated wastes**
- ✓ How to overcome **public acceptance** issues
- ✓ How to **plan** and **implement** a safety assessment
- ✓ Using a systematic approach to **conditioning waste**
- ✓ The practical and legal implications of **transportation** of waste
- ✓ Waste processing **simulation** and **optimisation**

Featuring: Characterisation masterclass

Four specialist presentations plus three interactive sessions taking you through the **requirements** for characterisation, enabling you to select and apply the appropriate **techniques** and **sampling approaches** to your nuclear waste operations.

Your expert lecturers include:

- **Jörg Aign**
Manager, Global Waste Management
Westinghouse Electric Company
- **Richard Hunter**
Waste Characterisation Services Manager
LLR Repository Ltd
- **Ian Adsley**
Principal Consultant
Nuvia Ltd
- **Dr Helen Beddow**
Gamma Spectrometry & Groundhog Service Manager
Nuvia Limited
- **Jerry Anderson**
Waste Operations Manager
Magnox Ltd
- **Sonia Pratley**
Business Development Manager
AMEC

"Impeccably organised, interesting and well-pitched event. I would recommend it to anyone in the nuclear industry and wider"
(G Parkman, Babcock M & T Division)

Book the **Predisposal & Characterisation** and **Disposal of Radioactive Waste** Seminar's together and **save an extra £200**



This 3 day comprehensive seminar is designed to take you through the spectrum of predisposal, from preparation to management, to enable you to better prepare and deal with radioactive waste.

Themes being covered by the Seminar include:

- Development and **preparation** for predisposal of waste
- **Pre-treatment, treatment** and **conditioning** of wastes
- **Characterisation** and monitoring of radioactive waste
- **Storage** and **transportation** options for different waste types

Highlights include:



Technical Workshop:

You will be asked to assess the potential problems of site characterisation and in groups, identify the best solutions available.



Spotlight session:

Examine different waste reduction techniques and learn about the options available to help reduce the cost and volume of waste

Who should attend?

The course is relevant but not limited to:

- ✓ Waste Managers
- ✓ Waste operations managers
- ✓ Decommissioning managers
- ✓ Nuclear waste engineers
- ✓ Technical experts
- ✓ Environmental consultants
- ✓ Government departments and agencies focused on waste and decommissioning

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 ONE – Monday 3 December 2012



09.00

Registration and **Icebreaker Breakfast**

Join us for breakfast to meet other attendees and mingle with your peers and speakers

09.30

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

Pre-treatment, treatment and conditioning of wastes

09.40

Waste processing simulation and optimisation

- A dynamic, probabilistic simulation approach with a user-friendly interface
- Identify bottlenecks in the overall waste management design before starting detailed planning activities
- Optimise the number of treatment systems and identify the most cost-effective treatment paths by evaluating different process scenarios
- Minimise total life cycle cost of waste treatment facilities

Jörg Aign, Manager, Global Waste Management, Westinghouse Electric Company

10.20

Examining decontamination of waste techniques

- General considerations
- Examining different types of decontamination
- Basic techniques including scarifying and abrasive blasting
- Selecting appropriate methods for decontamination

Jerry Anderson, Waste Manager, Magnox Limited

11.00

Discussion session with course leaders on morning sessions

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

11.10

Morning tea and networking break

11.40

Minimising the volume of waste

- Waste reduction techniques and processes
- Using waste recycling
- Using minimisation to reduce costs
- Worked examples of waste volume reduction

Jerry Anderson, Waste Manager, Magnox Limited

12.20

Discussion session with course leaders on morning sessions

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

12.30

Lunch

13.30

Practical Exercise: Volume reduction of radioactive waste

This interactive exercise will present delegates with key information where they need to assess the best option available for reducing the volume of waste and present their findings back to the room

Jerry Anderson, Waste Manager, Magnox Limited

14.15

Afternoon tea

14.45

Treatment systems and facilities for low and intermediate level radioactive waste

- Solid and liquid waste single treatment systems and integrated facilities
- Sorting and compaction
- Cementation and recipe development

Jörg Aign, Manager, Global Waste Management, Westinghouse Electric Company

15.15

Case study: An AP1000 Site Radwaste Treatment Facility

This case study will explore the specific techniques of conditioning used for treating radioactive waste at an AP1000 Site Radwaste Treatment Facility

Jörg Aign, Manager, Global Waste Management, Westinghouse

15.45 **End of day discussion session**
Your chance to discuss the issues and topics raised during the day

16.00 Chairman's closing remarks and end of day 1

DAY TWO - Tuesday 4 December 2012

09.00 Morning tea

09.30 **Chairman's opening remarks**
Ian Adsley, *Principal Consultant, Nuvia Ltd*

Characterisation and monitoring of radioactive waste

09.40 **Reviewing the requirements for characterisation**
• An overview of characterisation requirements
• Sampling and measurement techniques
• Challenges in current characterisation methods
Richard Hunter, *Waste Services Characterisation Manager, LLW Repository Ltd*

10.20 **Understanding how sampling approaches affect characterisation**
• Why sample?
• Explaining the DQO process
• sampling appropriateness for characterisation
• The pitfalls
Sonia Pratley, *Business Development Manager, AMEC*

11.00 Morning tea

11.30 **Application of in-situ and bulk assay technologies**
• In-situ characterisation of above ground tanks
• Characterisation of land to support delicensing projects
• Bulk monitoring using the High Resolution Assay Monitor (HIRAM) and Gamma Excavation Monitor (GEM) systems
Dr Helen Beddow, *Gamma Spectrometry & Groundhog Service Manager, Nuvia Limited*

12.15 **Characterisation techniques and their applicability**
• Selecting the most appropriate characterisation technique
• Applying the selected technique
• Overcoming the challenges of characterisation techniques
Ian Adsley, *Principal Consultant, Nuvia Ltd*

13.00 Lunch

14.00 **Assessing site characterisation problems**
This interactive session will require delegates to assess particular site characterisation requirements and problems and considerations such as delicensing, contaminated land and buildings, VLLW, LLW and ILW wastes
Ian Adsley, *Principal Consultant, Nuvia Ltd*

14.50 Afternoon tea

15.20 **Identifying site characterisation solutions**
This session will make delegates consider the various solutions available to site characterisation requirements and problems
Richard Hunter, *Waste Services Characterisation Manager, LLW Repository Ltd*

16.10 **Summary of outcome of afternoon session discussions**
This session will focus on the outcomes of the exercise given to delegates including possible actions and R&D requirements

16.30 Chairman's closing remarks and end of day 2

DAY THREE - Wednesday 5 December 2012

Storage and transportation of radioactive waste

09.00 Morning tea

09.30 Chairman's opening remarks

09.40 **Exploring the waste routes**
• Assessing the characteristics of the waste
• Packaging, storing and transporting waste
• Disposal requirements of waste

10.20 **Discussion session with course leaders on morning sessions**
Your chance to ask questions and discuss specific issues raised during the early morning sessions

10.40 Morning tea

11.10 **Examining the storage of raw & treated waste and spent fuel**
• Monitoring the storage of raw and pre-treated waste
• Storing treated and conditioned waste
• Handling, conditioning and storage of spent sealed radioactive sources
• Key storage options for spent fuel including dry storage
Representative, Galson Sciences Ltd

12.00 **Open discussion session: Packaging options for volume reduction and cost-effective operations**
• Packaging options for different waste types
• Assessing the challenges associated with packaging radioactive waste
• Developments in packages for radioactive waste
• Implications of packaging on transport

12.50 **Discussion session with course leaders on morning sessions**
Your chance to ask questions and discuss specific issues raised during the early morning sessions

13.00 Lunch

14.00 **Examining national and international transport options for waste**
• Overview of radioactive waste transportation
• Overcoming the challenges associated with the transport of radioactive waste
• National and international regulations, policy
• Cross border transportation of waste

15.00 Afternoon tea

15.30 **Predisposal Practical Workshop**
Delegates will be asked to use the information they have learned over the Course and asked to provide recommendations on best options for pre-treatment and treatment solutions for specific scenarios.

16.15 **Discussion session with course leaders on afternoon sessions**
Your chance to ask questions and discuss specific issues raised during the afternoon sessions

16.30 Chairman's closing remarks and close of Course

Book the **Predisposal & Characterisation and Disposal of Radioactive Waste** Seminars together and save an extra £200!

The Disposal of Radioactive Waste Seminar examines the processes associated with disposal of low level, intermediate level and high level waste including policy, waste routes, cost, safety case assessments and deep geological repositories

For more details visit www.ibcenergy.com/disposal

Disposal of Radioactive Waste Seminar

Thursday 6 - Friday 7 December 2012, London

*Available to delegates from the same company. Subject to approval

Predisposal Management and Characterisation of Waste Course

Monday 3 – Wednesday 5 December 2012
The Hatton, Hatton Garden, London

VIP CODE:

EN/NM/HM/LW/MR/TR

Event Code
FKA2299

Plan your
predisposal steps
for more cost and
time effective waste
operations

4 EASY WAYS TO REGISTER

Energy Customer Services

Tel: +44 (0)20 7017 5518

Fax: +44 (0)20 7017 4745

Email: energycustserv@informa.com

Web:
www.ibcenergy.com/characterisation

Scan with
smartphone
QR Reader App:



VENUE DETAILS

The Hatton
51-53 Hatton Garden
London EC1N 8HN
Tel: +44 (0) 20 7242 4123
Email: hatton@etcvenues.co.uk
Web: www.etcvenues.co.uk/venues/the-hatton

ACCOMMODATION DETAILS

Reduced Rate Hotel Accommodation: the cost of the accommodation is NOT included in the event fee. To book accommodation, at a reduced rate, near the venue, please visit the following link:
<http://www.HotelMap.com/M4WTW>

SPECIAL REQUIREMENTS

Please list below any special requirements you may have

STEP 1: SELECT YOUR PACKAGE (please tick option)

	DATES	REGISTER BY 5 October 2012	REGISTER BY 2 November 2012	REGISTER AFTER 2 November 2012
Predisposal & Characterisation Course & Disposal of Radioactive Waste Seminar*	3-7 Dec 2012	<input type="checkbox"/> £2698 (+VAT@20% = £3237.60) SAVE £600	<input type="checkbox"/> £2898 (+VAT@20% = £3477.60) SAVE £400	<input type="checkbox"/> £3098 (+VAT@20% = £3717.60) SAVE £200
Predisposal & Characterisation of Radioactive Waste Course only	3-5 Dec 2012	<input type="checkbox"/> £1699 (+VAT@20%) = £2038.80 SAVE £200	<input type="checkbox"/> £1799 (+VAT@20%) = £2158.80 SAVE £100	<input type="checkbox"/> £1899 (+VAT@20%) = £2278.80

* Available to delegates from the same company. Subject to approval. The VAT rate is subject to change and may differ from the advertised rate. The amount you are charged will be determined when your invoice is raised. Savings include Multiple Package & Early Booking Discounts. All discounts can only be applied at the time of registration and discounts cannot be combined apart from early booking discounts which are available to everyone. All discounts are subject to approval. Please note the conference fee does not include travel or hotel accommodation costs. We are happy to accept a replacement delegate for the whole event; however delegate passes cannot be split or shared between delegates under any circumstances.

£200 discount available for 3rd and subsequent delegates from the same company

☐ I am unable to attend but please reserve me _____ set(s) of the Seminar documentation @ £399

STEP 2: DELEGATE DETAILS

1st Delegate Mr/Mrs/Ms

Job title _____
Department _____
Company _____
Address _____
Telephone _____
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Email _____
Nature of Business _____
Billing Address (if different from above address) _____

Yes! I would like to receive information about upcoming events by email. By giving you my email address I am giving ONLY Informa companies the permission to contact me by email

2nd Delegate Mr/Mrs/Ms

Job title/Dept _____
Company _____
Address _____
Telephone _____
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Email _____

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3rd Delegate Mr/Mrs/Ms

Job title/Dept _____

Company _____

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Telephone _____

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Line Manager Mr/Mrs/Ms

Job title/Dept _____

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Booking Contact Mr/Mrs/Ms

Job title/Dept _____

Telephone _____

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Email _____

£200 Discount

STEP 3: PAYMENT DETAILS

☐ Enclosed is a **cheque** made payable to **Informa UK Ltd** (Ref: FKA2299)

☐ **To make payment by credit card:** to ensure we provide the highest level of security for your credit card details we are unable to accept such payments via email or fax which ensures that these details are never stored on our network. To make payment by credit card on-line, please enter your credit card details in our secure payments website that you will use when making your booking via the event website (the event web address is near the top of the booking form). Alternatively call our customer service team on +44 (0) 20 7017 5518

☐ For payment by **Bank transfer** (excl. US\$ & HK\$) Informa UK Ltd, Account Name: IIR Ltd. Account Number: 01825550 NatWest Bank Plc, 25 High Street Colchester, Essex. CO1 1DG, UK. Sort Code: 60-06-06 SWIFT code: NWBKGB2L. IBAN: GB25NWBK60060601825550 (Ref: FKA2299) and delegate's name

Delegates who do not pay with their booking are requested to provide a copy of their credit card / cheque details to help payment allocation. Staff at the event will request a credit card guarantee for delegates without proof of payment.

For further information on payment details please call **+44 (0)20 7017 5518**

TERMS & CONDITIONS

FREE: Bookings made within 2 weeks of the Seminar start date must be accompanied by a credit card confirmation.
ARE YOU REGISTERED?: You will always receive an acknowledgement of your booking. If you do not receive anything please call us on +44 (0)20 7017 5518 to make sure we have received your booking

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Changes to the Conference IBC Energy may (at its sole discretion) change the format, speakers, participants, content, venue location and programme or any other aspect of the Event at any time and for any reason, whether or not due to a Force Majeure Event, in each case without liability.

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