

# ICNC2011

19th – 22nd September 2011  
Edinburgh Conference Centre,  
Heriot-Watt University, Edinburgh, Scotland



## Technical Programme:

Programme Area	Issues
1. Development of Standards and Assessment Methodology	<ul style="list-style-type: none"> <li>• guides, standards, handbooks,</li> <li>• general methodology developments for fuel fabrication, storage, reprocessing, transport, decommissioning etc.</li> <li>• 'special' methodology developments, e.g. for fuel fabrication &amp; transport of advanced reactor fuels &gt;5w/o enrichment, risk informed methods,</li> <li>• optioneering studies/methods</li> <li>• consistency of safety margins, integration with overall facility safety cases, 'fit-for purpose' safety cases</li> </ul>
2. Operational Practise	<ul style="list-style-type: none"> <li>• practical considerations in the implementation of criticality control</li> <li>• selection of methods of control, measurement techniques, compliance issues</li> <li>• operator training, human factors, criticality audits and inspections</li> <li>• lessons learnt from operating experience, incidents</li> </ul>
3. Criticality Codes and Nuclear Data	<ul style="list-style-type: none"> <li>• improved user interface/checking tools</li> <li>• testing of new codes &amp; data</li> <li>• improvements to nuclear data</li> <li>• identification of experimental needs</li> </ul>
4. Criticality Experiments	<ul style="list-style-type: none"> <li>• new evaluations of existing experiments</li> <li>• new experiments</li> <li>• future programmes</li> </ul>
5. Uncertainty Analysis	<ul style="list-style-type: none"> <li>• derivation of code/nuclear data bias and its uncertainty</li> <li>• sensitivity analysis, selection of representative validation benchmarks</li> <li>• assessment of manufacturing/operational uncertainties</li> </ul>
6. Analysis of Criticality Accidents and Incidents	<ul style="list-style-type: none"> <li>• modelling of criticality excursions</li> <li>• analysis of causes of accidents/incidents,</li> <li>• lessons learnt for emergency response planning</li> <li>• accident detection and alarm systems: adequacy/omission studies</li> </ul>
7. Burnup Credit	<ul style="list-style-type: none"> <li>• modelling issues, code development, validation</li> <li>• application &amp; implementation, bounding assumptions, burn-up measurements, compliance issue</li> <li>• future uses, e.g. disposal, new build</li> </ul>
8. Waste Management Issues	<ul style="list-style-type: none"> <li>• waste inventories, variability, characterisation requirements, special issues</li> <li>• design of waste packaging, design of waste packaging processes,</li> <li>• assessment of retrieval/conditioning/packaging/surface storage operations</li> <li>• design of disposal facilities, assessment of disposal operations, assessment of post-closure phase</li> </ul>
9. Professional Development Issues	<ul style="list-style-type: none"> <li>• maintaining/building capability, national programmes, core competencies, training programmes</li> <li>• international coordination/collaboration</li> <li>• meeting future challenges, e.g. new build</li> </ul>

### About Edinburgh:

Edinburgh is Scotland's inspiring capital and is one of Europe's most beautiful cities. It is rich in history and pulsing with 21st century verve. For more information on visiting Edinburgh go to

[www.edinburgh-inspiringcapital.com](http://www.edinburgh-inspiringcapital.com)

### About the Edinburgh Conference Centre:

For more information on the ICNC 2011 venue visit:

[www.edinburgh-conference.com/home/virtual\\_tour/jwaudita](http://www.edinburgh-conference.com/home/virtual_tour/jwaudita).



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**ICNC 2011** allows specialists from around the globe to come together to discuss, analyse and study the latest developments in the area of nuclear criticality safety.

This is a unique opportunity to exchange ideas with industry experts, leaders, colleagues and peers in the historic setting of Edinburgh, Scotland

## Conference Highlights:

- 4-day technical programme on criticality issues over the whole fuel cycle
- Social programme including drinks reception and the ICNC 2011 Conference Banquet in the Balmoral Hotel, one of Edinburgh's most prestigious hotels overlooking Edinburgh Castle
- Technical tours of Fuel Fabrication and Waste Management Sites
- Guest programme including a variety of trips to see the amazing sites Edinburgh has to offer

## Key ICNC dates:

Open submission of abstracts	01 November 2010
Close submission of abstracts	28 February 2011
Notification of acceptance	31 March 2011
Open Early bird Registration	01 March 2011
Close Early Bird Registration	30 June 2011
Submission of full papers	31 July 2011
Registration closes	31 August 2011

## Registration, Accommodation and Travel Advice:

Registration for the conference and for all other events (Guest Programme, Banquet, Technical Tours) can be made on-line at the UK Website for ICNC2011: [www.icnc2011.com](http://www.icnc2011.com)

'Early-bird' registration will open at this site on 1 March 2011. A wide range of hotels/apartments will be made available for on-line booking at competitive prices.



[www.icnc2011.com](http://www.icnc2011.com)

## Submission of Abstracts:

Review of the abstracts will be made by the ICNC International Technical Programme Committee which has been established in collaboration with the OECD Nuclear Energy Agency (NEA) Working Party on Nuclear Criticality Safety (WPNCSS).

- Abstracts to be submitted on-line to: [www.nea.fr/science/meetings/ICNC2011/index.html](http://www.nea.fr/science/meetings/ICNC2011/index.html)
- Abstract submission will open on 1 November 2010, closing on 28 February 2011.
- Authors will be notified of acceptance of their presentations by end of March 2011.
- Authors are asked to use the abstract and paper templates provided at the website and indicate which element of the Technical Programme below best describes the content of their paper. Detailed instructions to authors are also available at the website.

## Conference Organisation:

**UK Organisers:** UK Working Party on Criticality; National Nuclear Laboratory, Department for Transport, Nuclear Installations Inspectorate, AWE, Sellafield Ltd, Serco Assurance

**International Coordinator:** OECD Nuclear Energy Agency (NEA) Working Party on Nuclear Criticality Safety

**Chair of UK Organising Committee:** Jim Gulliford, OECD Nuclear Energy Agency (NEA)

**Chair of International Technical Programme Committee:** Dr Veronique Rouyer, IRSN, France

**Technical Programme Secretariat:** Dr Franco Michel-Sendis, OECD Nuclear Energy Agency (NEA)

## Sponsorship and Exhibition Opportunities:

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