



A bi-weekly publication informative of current safety activities and developments taking place in the countries participating in the Extrabudgetary Programme (EBP) on the Safety of Nuclear Installations in South-East Asia, Pacific and Far East Countries

## **Workshop on Periodic Safety Review of Research Reactors**

**Bangkok, Thailand  
30 November - 4 December 2009**

This workshop was hosted by Thailand Institute of Nuclear Technology (TINT) and the Office of Atoms for Peace (OAP). It was attended by 14 participants representing regulatory bodies and operating organizations of research reactors from nine ANSN Member States and one IAEA staff. The purpose of the workshop was to provide the participants with practical information and guidance on research reactors, in particular the scope, contents and methodology of the periodic safety reviews (PSR) of research reactors. The workshop was also intended to provide a forum for the participants to discuss their national practices and exchange their experiences on this subject.



The workshop programme included 18 presentations covering the different topics related to research reactors PSR. The presentation from IAEA covered PSR contents and methodology, the feedback from recent activities and the safety documents for research reactors, particularly those needed for PSR. Presentations from some countries indicated that PSR were generally performed at the occasion of the relicensing

process for the operating research reactors. Presentations from some other countries indicated that PSR would be performed after the finalization of regulatory documents which were under preparation.

Practical examples provided by two participants from ANSN Member States covered the safety analyses and safety evaluations made for particular research reactors in the country. The discussions among the participants focused mainly on the justification and benefit of PSR for safety enhancement, taking into account the aging of the facilities, their modifications and the changes in their environment.

The second part of the workshop was devoted to work on exercises. The participants were divided into two working groups including the operators and regulators, respectively. The exercises focussed on discussion and verification of the consistency of the Postulated Initiating Events (PIEs) considered in the Safety Analysis Reports of three research reactors, with the list of PIEs included in the IAEA Safety Standard NS-R-4, Safety Research Reactors; Safety Requirements. The exercises were very useful for sharing knowledge and experience among the participants.

## **Consultancy Meeting to develop IAEA Guidance on Verification and Validation of Computational Tools in Safety Analysis**

**Vienna, Austria, 18-22 January 2010**

The consultancy meeting took place in Vienna to develop a technical guidance document on verification and validation (V&V) of computational tools for safety analysis complementing the relevant IAEA Safety Standards. The meeting was attended by three experts from Italy, France and Korea and an IAEA staff.

The safety analyses of Nuclear Power Plants (NPP) require complex and interdisciplinary expertise heavily relying on computer codes.



There is a strong need to have more detailed guidelines in this field in those countries embarking on NPP in particular the ANSN Member States.



Due to the safety significance of computer codes, code V&V has been a subject of IAEA Safety Standards and Guides. In particular, IAEA Safety Standard, GSR Part 4: Safety Assessment for Facilities and Activities (2009) stipulates that any

computer codes used in the safety analysis shall undergo V&V. IAEA Safety Standard Guide SSG-2: Deterministic Safety Analysis for Nuclear Power Plants (2009) provides general guideline on how to meet the requirement of GSR Part 4. It has been acknowledged, however, that the guidelines on the code V&V are still too general to apply.

Therefore the ANSN organized the consultancy meeting as an activity of the Topical Group on Safety Analysis (SATG) to develop an IAEA TECDOC or Safety Report Series (SRS) on the code V&V aiming to complement GSR Part 4 and SSG-2. At the meeting, a preliminary table of contents was outlined. When the guidelines are developed and completed, the guidelines will be fully used within the SATG activities to ensure a proper application of the relevant IAEA Safety Standards in the ANSN Member States.

### Recent and forthcoming ANSN activities and other IAEA activities in Asia:

#### **Workshop on Commissioning Preparation and Management and Annual Meeting of the Topical Group on Operational Safety (OSTG)**

China, 18-22 January 2010

#### **Consultancy Meeting to develop IAEA Guidance on Verification and Validation of Computational Tools in Safety Analysis**

Vienna, IAEA, 18-22 January 2010

#### **Consultancy Meeting to prepare the background information of ANSN activities**

Vienna, IAEA, 25 January-3 February 2010

#### **6<sup>th</sup> meeting of the IT Support Group (ITSG)**

Vienna, IAEA, 3-5 March 2010

#### **1<sup>st</sup> meeting of the Capacity Building Co-ordination Group (CBCG)**

Vienna, IAEA, 29-31 March 2010

The knowledge gained through the implementation of the ANSN activities is being progressively uploaded in the Asian Nuclear Safety Network (ANSN) knowledge base and can be accessed at <http://www.ansn.org>

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