



INTERNATIONAL ATOMIC ENERGY AGENCY

THE FIRST WORKSHOP FOR ICSP ON HEAVY WATER REACTOR MODERATOR SUBCOOLING REQUIREMENTS

19 – 21 November 2012
Ottawa, Canada

INFORMATION SHEET

I. BACKGROUND

The IAEA organizes International Collaborative Standard Problems (ICSP) to facilitate the development and validation of computer codes for design and safety analysis of nuclear power plants. The implementation of ICSP usually includes an experimental investigation of interesting phenomena and simulation of the experiment with computer codes.

The IAEA prepared a new ICSP on “HWR Moderator Subcooling Requirements to Demonstrate Backup Heat Sink Capabilities of Moderator during Accidents” and invites the participation of interested organisations and institutes. The purpose of this IAEA ICSP is to provide contact boiling experimental data to assess the subcooling requirements for an overheated pressure tube, plastically deforming into contact with the calandria tube during a postulated large break loss of coolant accident. The data can be used to assess safety analysis computer codes simulating the following phenomena:

- Radiation heat transfer to the pressure tube;
- Pressure tube deformation or failure;
- Pressure tube to Calandria tube heat transfer;
- Calandria tube to moderator heat transfer; and
- Calandria tube deformation or failure.

Atomic Energy of Canada Limited (AECL) has agreed to host this ICSP. Participants are expected to have an analysis tool capable of investigating the above phenomena to be examined in the experiment. Detailed information on this ICSP is available from the IAEA website: <http://www.iaea.org/NuclearPower/WCR/ICSP-HWR-Moderator.html>.

II. OBJECTIVES

The purpose of the first workshop is to:

- share the experience of participants;
- understand all technical matters included in the ICSP; and
- define collaboration scheme to be implemented for ICSP.

III. TOPICS TO BE COVERED

Participants are encouraged to share their experience in the use or development of computer codes for fuel channel integrity and moderator behaviour during accidents for HWR. The following topics will be addressed:

- Presentation and understanding of ICSP proposal;
- Participant's presentation on the experience and plan;
- Requirements of computer codes to be used for ICSP;
- Understanding and agreement on experimental procedure;
- Observations on the experimental facility;
- Ground rules for double-blind calculation; and
- Overall schedule for the entire ICSP period.

IV. ORGANIZATION

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V. PARTICIPATION IN THE ICSP AND WORKSHOP

The workshop may be attended only upon official designation through the appropriate national authority (Ministry of Foreign Affairs or National Atomic Energy Authority), not later than **31 August 2012**.

Workshop participants are expected to submit the attached [ICSP Participation Form](#) before their nomination. Prospective participants whose nominations have been received by the IAEA will be notified directly.

VI. VENUE, VISA AND ACCOMMODATION

The workshop will be held in Ottawa, Canada. Indications on and how to reach the venue will be provided in due course.

Participants should arrange for their accommodation directly with hotels as soon as possible (a list of recommended hotels with indicative room rates will be provided by the local organizer, in due course).

Designated participants who require a visa to enter Canada should submit the necessary application form as early as possible to the nearest diplomatic or consular representative of Canada. For more information on visa requirements and list of diplomatic and consular representations, please visit the official web site of Foreign Affairs and International Trade Canada at: http://www.voyage.gc.ca/preparation_information/visas-eng

VII. EXPENDITURES

In accordance with the established rules, Governments or other national authorities are expected to bear the travel and other costs of designated participants in the Workshop. Limited funds are, however, available to help cover the cost of participants from Member States eligible to receive technical assistance under the IAEA's Technical Cooperation Programme. Such assistance can be offered, upon specific request, to one participant per country provided that, in the IAEA's view, this participant will make an important contribution to the workshop. The application for financial support should be made at the time of designation of the participant.

VIII. WORKING LANGUAGE

The working language of the workshop will be English. All communications, abstracts, and presentations must be sent in English.