



Call for Abstracts

“Technical Meeting on Low-Power Critical Facilities and Small Reactors”



Ottawa, Ontario CANADA
2010 November 1-3

“Celebrating ZED-2’s 50th Anniversary”

Objective

The Zero Energy Deuterium (ZED-2) Critical Facility, located at AECL’s Chalk River Laboratories will be celebrating its 50th Anniversary this year. Built in the late 1950s, ZED-2 achieved first criticality on September 7, 1960. ZED-2 was initially built to test the fuel arrangement of Canada’s first nuclear power plant, the Nuclear Power Demonstration (NPD), located along the shores of the Ottawa River about 20 km upstream of Chalk River. ZED-2 was the successor to the first nuclear reactor outside of the United States, the Zero Energy Experimental Pile (ZEEP), which was designed to investigate lattice physics and reactor kinetics. Since that time, the ZED-2 critical facility supports the development of the CANDU industry by testing a wide range of fuel bundle designs, fuel arrangements at low power under a variety of operating conditions and simulating accident scenarios. ZED-2 continues to operate today, supporting the current CANDU fleet, development of the Advanced CANDU Reactor and advanced fuel cycles including thorium fuels.

To mark the historic occasion of ZED-2’s 50th anniversary, a Technical Meeting to showcase the numerous accomplishments of low-power critical facilities worldwide will be held in Ottawa, November 1st and 2nd, 2010. The two-day Technical Meeting will cover topics of interest to operators, experimenters and analysts involved with low-power critical facilities. Following the Technical Meeting, AECL will host a tour (November 3) of the Chalk River Laboratories for all interested attendees. The highlight of the tour will be the ZED-2 critical facility.

Key Deadlines

Abstract submissionSept. 17, 2010
Notification of acceptance.....Oct. 8, 2010
Early registration deadlineSept. 15, 2010

Abstract Submission

Abstracts and (optional) extended abstracts must be submitted via electronic mail to the Technical Program Chair Milan Ducic, ducicm@aecl.ca before the abstract submission deadline. For the purpose of this technical meeting, full papers are not required. Moreover, extended abstracts should be no more than three pages in length.

Abstracts, extended abstracts, and participant’s presentations will be published on CD in the Conference Proceedings.

Conference Organizers

Honorary Co-chairs.....Ralph Green, Chas Millar
Rick Jones, John Hilborn
General Chair.....Bhaskar Sur
Technical Program Chair.....Milan Ducic
Program Committee.....Peter Boczar
Ken Kozier
Rick Didsbury
Dave Irish
Bruce Wilkin
Brock Sanderson
Julian Atfield
Mike Zeller
Elisabeth Varin

Topics of Interest

Papers related to the following topics are of interest to this conference:

- Safety and licensing of critical facilities
- Measurements in critical facilities
- Analysis of measurements from critical facilities
- The use of measurements from critical facilities in reactor physics code validation
- Extension of bias and uncertainty from the critical facility to the power reactor
- Other uses of measurements from critical facilities
- Design development of instrumentation for measurements in or control of critical facilities
- Different fuel compositions, geometries, reactivity worth of devices, kinetics parameters, reactor types
- Measurements of irradiated materials, actinides
- Reactor physics benchmark databases and activities
- Education and research with small reactors

Further Information

Additional information may be obtained by contacting Technical Program Chair Milan Ducic, AECL, Chalk River Laboratories, Chalk River, Ontario K0J 1J0 CANADA, Tel: (613) 584-3311; Email: ducicm@aecl.ca

