



Preliminary Call for Papers

“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 in early November. The two-day Technical Meeting will cover topics of interest to operators, experimenters and analysts involved with low-power critical facilities. Following the conference, AECL will host all interested attendees for a day at the Chalk River Laboratories, with the highlight being a tour of the ZED-2 critical facility.

Key Deadlines

Abstract submissionAug. 15, 2010
Notification of acceptance.....Sept. 1, 2010
Early registration deadlineSept. 15, 2010

Abstract Submission

Abstracts must be submitted via an on-line submission link, which will be posted on the CNS webpage at <http://www.cns-snc.ca>. Abstracts/ extended abstracts, up to three pages in length, and participants’ 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 Co-chairsAlex Rauket, 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 test 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 Co-chair: Milan Ducic, AECL, Chalk River Laboratories, Chalk River, Ontario K0J 1J0 CANADA, Tel: (613) 584-3311; Email: ducicm@aecl.ca

