

## Successful ZIRAT14 and LCC5 Seminars with dedicated participants



[Read more about the ZIRAT14 Seminar](#)



[Read more about the LCC5 Seminar](#)



[See pictures from Bilbao](#)

This year's ZIRAT14 and LCC5 Seminars were held in Hilton Head Island, USA and in Spain, Bilbao. In total over 100 engineers, scientists and managers attended.

### NEW REPORTS



**The PWR and VVER Secondary System Water Chemistry Report (SSWC)** gives a complete overview of the various rationale approaches to optimize the water chemistry according to the design and materials as well as the specific situation of each Nuclear Power Plant.

[Read more](#)

## Two unique Stand Alone Reports written by top Experts

**The Environmentally-Assisted Degradation of Stainless Steels in LWRs Report (EADS)**, is the third Report in a series to provide knowledge in the area of degradation mechanisms. Degradation of structural materials is a major safety and reliability issue in the nuclear industry. Better knowledge can increase safety margins, provide the basis of predictions of future degradation so that timely and economic remedial actions can be taken, and help with defining soundly based mitigation methods.

[Read more](#)



## “Useful for the day to day business”

**I**, ANDRÉ KOCH, age 33, studied chemistry in Ulm, Germany dealing with the special field of synthesis of Au clusters and methane hydrates and supra molecular chemistry in the Department of polymer chemistry/homogeneous catalysis.

Since March 2006 I am the referee for Power Plant Chemistry in the Gundremmingen Nuclear Power Station. In this function I became aware -through colleagues from Isar NPP- of the activities of ANT International. As ANT International is specialised in providing expert training and knowledge in the areas of nuclear fuel, reactor materials, and water chemistry I became interested in the one-day-seminars in particular.

Based on the information provided by ANT International, we organized an in-house training on BWR reactor water chemistry. The agenda of this seminar was co-ordinated between ANT International and KGG and finally about 50 persons attended the seminar. During the seminar ANT International provided an overview on the background of reactor water chemistry practices in the US and Europe as well as about the interaction between materials and chemistry.

Due to the experience with ANT International am convinced that LCC and in particular the one-day seminars are very meaningful products. Moreover, the content of the training is very useful for our daily business.



Dr. Andre Koch  
KGG Power Plant Chemistry  
Advisor

## FEEDBACK ON ZIRAT AND LCC SEMINARS

# The ZIRAT and LCC Programs for AECL



**A**TOMIC ENERGY of Canada Limited utilises the ZIRAT and LCC Programs for the training of new engineers and scientists working on materials performance in nuclear reactors. Apart from learning about generic materials issues pertinent to all nuclear reactor applications AECL's young scientists and engineers are able to broaden their knowledge of materials performance in other nuclear reactor systems that are different from the CANDU reactors designed and built by AECL.

The ZIRAT and LCC Annual Reports provide excellent reference

material for our new scientists and engineers and are a valuable resource for scientists like myself who wish to stay current with advances in nuclear materials R&D. The special topic reports that are selected in advance by the Members, are an excellent source of references for those wishing to learn more about particular areas of interest and also provide valuable insights into the underlying subject matter.

One recent Special Topic Report in ZIRAT14 summarised published information on in-reactor creep. This very extensive review of the in-reactor creep of zirconium alloys,

extending over many decades of published data, is an excellent primer for researchers entering the field. The text and figures are formatted in such a way as to allow a reader to flip through the report and quickly understand the main points of the narrative. The colourful figures and tables are easy to view and add much to the character of the report.

I fully expect that AECL will continue to use the forums provided by ZIRAT and LCC to train new staff and as a means of networking with experts in the field of reactor materials engineering.

**Biography:** Malcolm Griffiths obtained his PhD in Physical Metallurgy from the University of Birmingham and has extensive experience in the fields of zirconium metallurgy and the effects of irradiation on materials. He is on the editorial advisory board for the Journal of Nuclear Materials and is a recipient of the Kroll medal for his contributions to the advancement of zirconium in the nuclear industry. He is manager for the Radiation Damage and Deformation Program and the Deformation Technology Branch at AECL Chalk River in Canada.

### Acronym explanation:

ZIRAT – Zirconium Alloy Technology Program

LCC – LWR Chemistry and Component Integrity Program



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