



Fourth International Conference on Fatigue of Nuclear Reactor Components

Announcement, Call for Papers and Conference Registration

**28th September-1st October, 2015
Seville, Spain**

Sponsored by:

OECD - NEA/CSNI
*(Organisation for Economic Co-operation and Development
Nuclear Energy Agency/Committee on The Safety of Nuclear Installations)*

EPRI
(Electric Power Research Institute)

JRC
(European Commission, Joint Research Centre)

Local Host:
Consejo de Seguridad Nuclear (CSN)

Overview

Fatigue is a primary degradation mechanism affecting nuclear power plant components world-wide. The effective management of fatigue is important to the continued safe and reliable operation of plant components during present operation as well as long-term operation and for next-generation nuclear reactors.

This is the invitation to the fourth installment of an OECD sponsored conference series on fatigue. The first conference in this series was held in Napa, California, in 2000 and was attended by approximately 90 fatigue experts, representing 12 countries. The second conference, held in Snowbird, Utah in 2002, provided an excellent forum for the discussion of component fatigue issues. The third conference was held in Seville in 2004 and was attended by more than 90 experts. Since then, important research has been performed and different approaches have evolved internationally.

The main objective of this Conference is to bring together the results of international research on the topic of fatigue with a special focus on the methods for evaluating environmental effects. Several countries have already incorporated the results from new research into applicable codes and standards. Additionally, several countries are requiring that environmental effects be considered by operating reactors, new reactors, or both. This

conference will provide a good opportunity to discuss and understand the different approaches for addressing fatigue effects and the rationale that lies behind each approach.

This conference will bring together the international community to discuss significant fatigue issues that affect nuclear plant operations. Technical presentations and group discussions are solicited in the following areas:

- Fatigue management programs
- Environmental fatigue, including irradiation effects and regulatory requirements
- Thermal fatigue assessment, management and operating experiences
- High-cycle fatigue including interaction with low-cycle fatigue
- Vibration-induced fatigue
- High temperature fatigue in GEN IV reactors including creep-fatigue interaction
- Improvements in fatigue analysis methods
- Application of laboratory results to predict component performance, including component testing
- Fatigue monitoring
- Non-destructive techniques for fatigue cracks detection, including probability of detection
- Fatigue crack growth behaviour
- Operating experience related to fatigue management, repairs, extent of condition assessments and licensing
- Activities on codes and standards and regulations related to fatigue and life extension

Target Audience

Utility and plant managers, system engineers, materials engineers, structural integrity engineers, licensing engineers, maintenance/repair engineers, NSSS vendors, researchers and regulators will benefit from attending this conference.

Technical Program

The general sessions with invited talks from principal international researchers and the specific sessions will include participant presentations on international approaches to fatigue management programs, reactor water environmental effects, thermal fatigue, fatigue monitoring, nondestructive testing/evaluation, codes and standards and regulatory initiatives.

A panel discussion on relevant fatigue technical issues is also planned.

Preliminary Session Schedule

Time	Monday September 28	Tuesday September 29	Wednesday September 30	Thursday October 1
8:00 – 9:00		Registration		
9:00 – 13:00		General Session	Specific Session	Specific Session
13:00 – 14:30		Catered Lunch	Catered Lunch	Catered Lunch
14:30 – 15:30		Specific Session	Specific Session	General Session
15:30 – 17:30			Panel Discussion	Final Discussion
18:00 - 21:00		Registration and Cocktail Reception		Conference Social Event

A detailed Technical Program will be included on the conference web sites and updated as papers are received and accepted.

Conference Web Sites

A webpage has been established for the Fourth International Conference on Fatigue of Nuclear Reactor Components. The webpage can be found at the following address:

<http://www.conferencefatiguevilla2015.com>

In this webpage you will find all the information about registration, accommodation and general information about the town of Seville.

The links to the announcements and conference technical programs will be published on the OECD/NEA calendar webpage:

<http://www.oecd-nea.org/nsd/calendar.html>

The link to the webpage with the technical information (abstracts, presentations and full technical papers) to the participants will be published in the same calendar page of OECD/NEA.

Submittal of Abstracts/Papers/Presentations

Deadline for abstracts	22 May 2015
Notification to authors of accepted abstracts	26 June 2015
Deadline for presentations (and full paper submission)	4 September 2015
Deadline for registration	18 September 2015

Participants wishing to make a presentation shall submit an abstract (between 200 and 400 words using MS Word and “Times New Roman 11” font). All abstracts should be submitted **by 22 May 2015**.

The Organizing Committee (OC) will review the abstracts, and authors will be notified of the result of the review by **26 June 2015**.

Authors are encouraged to submit full papers, but this is optional. Specific instructions on full papers submission will be provided. The full paper length should not exceed 12 pages including tables and figures. The paper should be prepared using MS Word and formatted for A4 paper using a Times New Roman 11 point font. Papers should be submitted by **4 September 2015**.

Presentations in conference should not exceed **20 minutes** and should be completed no later than **4 September 2015**.

Abstracts, presentations and full papers should be provided electronically to Olli Nevander, OECD/NEA, Olli.NEVANDER@oecd.org and Carlos Castelao, CSN/Spain, ccl@csn.es.

Conference Organizing Committee

The Conference Organizing Committee is planning the sessions and the final program for the conference. The Organizing Committee is comprised of the following individuals:

Name	Country	Organisation	Roles	E-mail
Carlos Castelao	Spain	CSN	Chair	ccl@csn.es
Robert Tregoning	USA	NRC		robert.tregoning@nrc.gov
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Olli Nevander	International	OECD/NEA	Conference Secretariat	Olli.NEVANDER@oecd.org

For any inquiry related to technical aspects, authors should contact the person identified hereinabove for a given geographical area and/or the Conference Secretariat.

Venue and Registration

The venue of the Conference is BARCELÓ RENACIMIENTO SEVILLA HOTEL (5*), Sevilla (Spain). Registration will open on 15 March 2015 and will close on **18 September 2015**. Participants should register at <http://www.conferencefatiguesevilla2015.com>.

Additional Information

For any further information related to the conference, please contact the Local Host:

Susana Navas
Team Leader - Consulting & Operation Management
BCD Travel Spain



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