



The MAI is a research facility created by EDF, EPRI (USA) and TEPCO (Japan) in order to better understand and anticipate how materials in power plants age and contribute to plant component degradation. Scientific programs of the MAI help power companies to optimize the operations and lifetimes of existing plants and support the design of future plants.

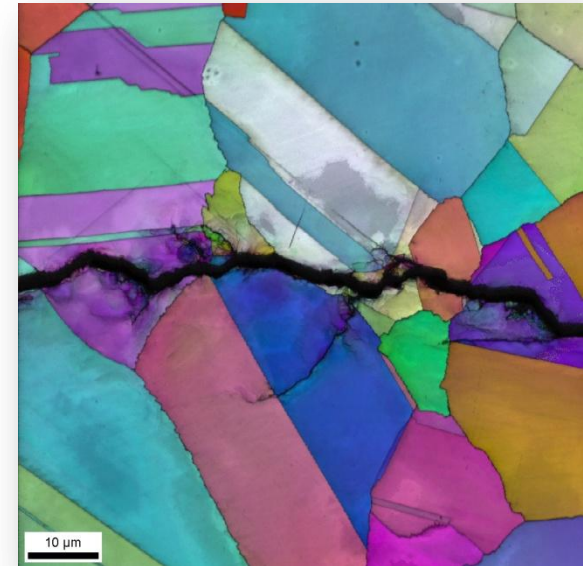
## Venue

The workshop will be held at the Materials Ageing Institute (EDF R&D center) Moret-sur-Loing, France. The R&D center is located in the southeast of Paris (75 km), 10 km from Fontainebleau. The MAI is easily accessible by car or by train (50 min from Paris).

## Registration and Accommodation

Registration to the workshop is only valid by completing and sending the registration form before 28 February 2010 to the conference office. The registration form is available on the website. The registration fee will include the list of participants, the proceedings of presented papers, lunches, coffee breaks and conference dinner. Expenses for travel and hotel accommodation are not included in the registration fee. Travel and accommodation arrangements should be made by each participant personally. A list of hotels is available on the website

# International workshop on Coupling Mechanisms to improve lifetime prediction of LWRs



**April 8 – 9, 2010**

**Les Renardières, Moret-sur-Loing (France)**

**EFC Event N°331**



## Scope and Objectives of the Workshop

Environmentally-assisted cracking is a limiting factor for the lifetime of light water reactors. Many cases of stress corrosion cracking and corrosion fatigue were reported for Ni-based alloys, stainless steels, zirconium alloys... However, lifetime extension to 60 year is expected. In this context, it is necessary to improve our understanding of degradations usually based on complex coupling between material, loading and environment. Important progress is being made with respect to characterization, understanding and modeling degradation mechanisms in representative operating conditions. Tools are being developed to improve safety and operating conditions of nuclear plants.

The main objective of the Workshop is to bring together experts from various countries who are contributing to predict and to understand interactions leading to crack initiation or crack propagation.

This event is organized by EDF R&D in the scope of the Materials Ageing Institute. The event is also sponsored by the European Federation of Corrosion (EFC): Nuclear Corrosion Working Party (WP4).

## Topics

The workshop will address the main items related to the coupling of mechanisms in order to improve lifetime prediction in light water reactors where environmentally-assisted cracking can occur:

- Cross characterizations
  - Deformation
  - Oxidation
  - Microstructure
  - Water chemistry
  - Environmentally-assisted cracking
- Modeling interactions
  - At the scale of the components
  - At the scale of the mechanism of cracking
- Numerical simulation of the interactions

## Key Dates

September 15, 2009	Announcement and call for papers
December 1, 2009	Deadline for abstracts
January 1, 2010	Notification of paper acceptance
February 28, 2010	Deadline for registration
April 8-9, 2010	Workshop

## Local Organizing Committee

Thierry COUVANT

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## Scientific Committee

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## Website

Registration form, hotel information and program are available on the website: <http://www.themai.org>