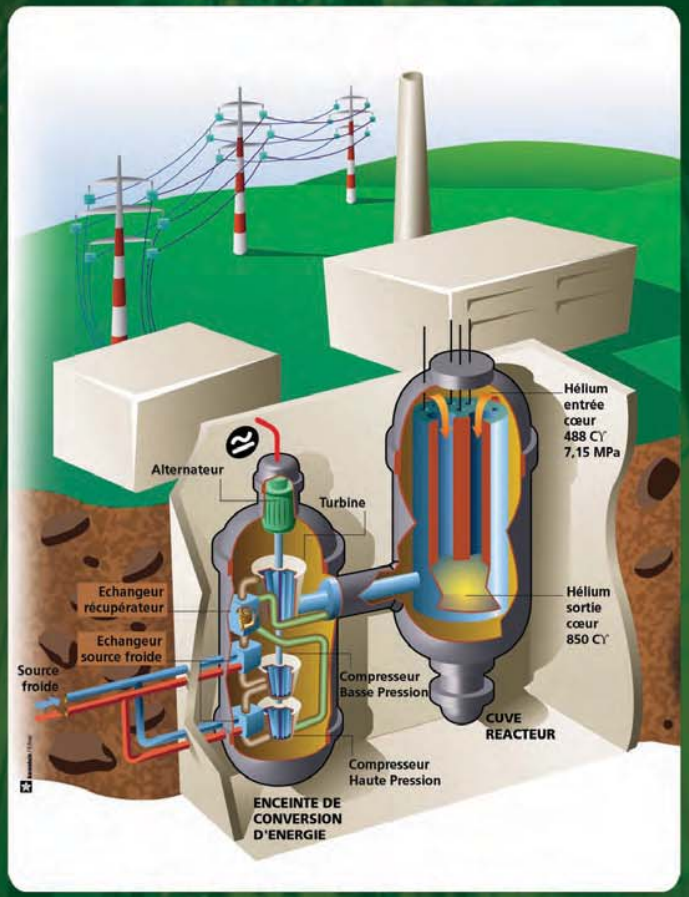
INTERNATIONAL SEMINAR
GENERATION IV
NUCLEAR REACTOR SYSTEMS
FOR THE FUTURE



FRANCE

November 16th – 20th, 2009

Outline Programme

Main Objectives

The main objective of this seminar is to acquire knowledge on a new generation of nuclear reactors:

- Gas-cooled fast neutron reactors
- New sodium-cooled reactor designs
- Materials development for high temperatures
- Problems related to high temperature reactors

Public

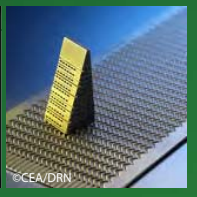
The course participants are professionals, researchers and students with interest in a global view on the Generation IV nuclear reactors systems for the future.

Topics

- Presentation of the Generation IV nuclear reactor systems
- Advantages of high temperature primary and secondary circuits
- Effects of high temperatures on circuit materials (strain, corrosion…)
- Specific features of Generation IV reactor cores (neutronics, thermohydraulic, …)
- New fuel developments for Gas Fast Reactor
- Safety features of helium-cooled reactors
- The High Temperature Reactor (HTR) system: background, history and experience
- HTR Fuel: pellet fabrication, irradiation in test reactors
- The Sodium Fast Reactor, cornerstone of a closed nuclear fuel cycle
- The Intermediate Heat Exchanger as a key to success
- Developments in Molten Salt Reactor technologies
- Advantages and drawbacks of a Thorium fuel cycle
- The European lead-cooled reactor systems

ATLAS research facility

Fuel plate for Gen IV reactors



Fuel pellet modelling

Methods and Venue

- The seminar consists of five days of lectures given by international experts under the auspices of the European Nuclear Education Network Association.
- The number of participants is limited to 25 to accommodate discussions and exchanges with lecturers.
- Courses will be given in English at the National Institute for Nuclear Sciences and Technology (INSTN), located at the CEA Saclay Centre (20 km south of Paris).

Fee Covers

Lectures, documentation, accommodation in Paris (5 nights), shuttle service to Saclay, lunches and a social event.

Registration of the seminar

To get the registration form, please contact:
Nadia Nowacki (nadia.nowacki@cea.fr)
Registering for the seminar is a commitment to attend all lectures and technical visits and the condition to get the attendance certificate at the end of the seminar.
Payment should be made by cheque made out in Euros to ASSOCIATION ENEN or proof of bank-to-bank transfer to the BNP SACLAY – ASSOCIATION ENEN
IBAN: FR76 3000 4017 8800 0100 0428 227
swift code: BNPAFRPPMAS.

Registration deadline: October 16th 2009
Please note that the number of places is limited, all registrations are classified by their date of arrival.

Place Saclay, France
Duration 1 week
November 16th – 20th 2009

Registration fee:
Full rate: 3500€
(3000€ without accommodation)
ENEN Members: 3000€
(2500€ without accommodation)
Students: (limited number) 1200€

50% of fee is refundable for cancellations received between October 1st - 31st 2009.

Language: English

For further information or to obtain a registration form, please contact:

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THE EUROPEAN NUCLEAR EDUCATION NETWORK ASSOCIATION

ENEN-Association is a non-profit international organization established under the French law whose mission is the preservation and further development of higher nuclear education and expertise.

ENEN-Association main objectives:

- To deliver a European Master of Science degree in nuclear engineering
- To encourage PhD studies, to promote exchange of students and teachers participating in the network
- To establish a framework for mutual recognition
- To foster and strengthen the relationships between universities, nuclear research laboratories, industries and regulatory bodies.

ENEN Association results from the cooperative action of partners of the ENEN project funded by the European Commission under the Euratom 5th framework programme.

ENEN Association effective members are academic institutions providing high level scientific education in nuclear disciplines. Associated members are nuclear companies, research institutes and organizations having an established tradition in the field of nuclear education, research and training.

51 institutions from 18* European countries are currently members of ENEN Association.

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