

## AUDIENCE

The conference is directed at a broad range of experts in the area of nuclear safety, including professionals from the different disciplines involved in the safety of nuclear power plants and other nuclear installations such as fuel cycles and research reactors. It is aimed at both licensees and governmental officials, including persons from regulatory bodies, industry and academia, as well as senior policymakers.

## KEY DEADLINES *(Extended)*

- 28 March 2013** Submission of extended synopsis *(including Form B)*
- 28 March 2013** Submission of grant application *(Form C)*
- 7 May 2013** Notification of acceptance of paper
- 1 July 2013** Submission of full paper *(only upon request by the IAEA, including Form A)*

Any participant not submitting a paper should submit Participation Form A through the appropriate authority as soon as possible.

## PAPER SUBMISSION

Extended synopses and full papers must be submitted to: TIC-2013.Contact-Point@iaea.org

## REGISTRATION

No registration fee is charged.

## LANGUAGE

The conference will be held in English.

## CONFERENCE SECRETARIAT

### Scientific Secretariat of the Conference

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### Conference web page

<http://www-pub.iaea.org/iaeameetings/43048/International-Conference-on-Topical-Issues-in-Nuclear-Installation-Safety>

Please include reference number IAEA-CN-205 in all communications.



OECD Nuclear Energy Agency (OECD/NEA)



# International Conference on Topical Issues in Nuclear Installation Safety: Defence in Depth — Advances and Challenges for Nuclear Installation Safety

21–24 October 2013  
Vienna, Austria



Organized by the



In cooperation with the



OECD Nuclear Energy Agency (OECD/NEA)

CN-205

## BACKGROUND

Over the years, the IAEA has organized several international conferences on topical issues in various areas of nuclear safety. The conferences have yielded recommendations and led to activities that have served to increase international cooperation and to promote the exchange of vital information to enhance nuclear safety. The present conference continues this work by focusing on nuclear installation safety.

## OBJECTIVE AND EXPECTED OUTCOME

The objective of this conference is to foster the exchange of information on the latest thinking on and advances in the implementation of the concept of defence in depth (DID) in nuclear installations, and the associated challenges. The focus will be on operating nuclear installations, including nuclear power plants, research reactors and fuel cycle facilities, and on how lessons learned from operating experience and recent events (e.g. the accident at the Fukushima Daiichi nuclear power plant) are used to enhance safety. The implementation of DID covers a number of elements that are directly related to the different states and life cycle phases of a nuclear facility.

## TOPICS

The conference will be devoted to the following key topical issues (in each case, examples are given of areas that have been identified as subjects for the contributed papers):

### Topical Issue No. 1: Advances and challenges in the implementation of DID in siting, design and construction

- Siting considerations;
- Design considerations;
- Manufacturing and supply chain;
- Classification of structures, systems and components;
- Oversight during manufacturing and construction;
- Prevention and control of accidents;
- Application of probabilistic and deterministic safety analysis.

### Topical Issue No. 2: Advances and challenges in the implementation of DID during commissioning and operation

- Procedures (normal/emergency operation);
- Technical specifications and oversight;
- Conduct of operation;
- Operating experience feedback;
- Maintenance/surveillance/in-service inspection;
- Training;
- Long term operation;
- Prevention and control of accidents.

### Topical Issue No. 3: Advances and challenges in the implementation of DID in accident management and emergency preparedness and response (EPR)

- Procedures and training;
- Strategy for accident management;
- Severe accident management;
- Equipment for accident management;
- EPR at the facility level;
- EPR at the local and national levels.

### Topical Issue No. 4: Cross-cutting issues in the implementation of DID

- Safety culture;
- Regulatory oversight;
- Human factors;
- Electrical systems and instrumentation and control;
- Balance between prevention and mitigation;
- Evaluation of DID effectiveness (e.g. independence of levels of defence);
- Harmonization of application of DID and regulatory practices;
- Application of a graded approach based on the types of nuclear installations and potential hazards faced by nuclear installations.