

International Conference on Topical Issues in Nuclear Installation Safety

21 – 24 October 2013

**Defence in Depth: Advances and Challenges for
Nuclear Installation Safety**

Topical Session 3 Report



IAEA

International Atomic Energy Agency

Topical Session Number 3

- List of presentations:
 - H. Aaltonen, Finland, Emergency Preparedness and Response: a Safety Net
 - F. Baciuc, IAEA, IAEA The Role of the International Atomic Energy Agency in a Response to Nuclear and Radiological Incidents and Emergencies
 - J. Barbaud, France, Strengthening Improvements in Defence in Depth on French Nuclear Power Plants following Fukushima Accidents
 - M. Kuznetsov, Russian Federation, Beyond Design Basis Severe Accident Management as an Element of Defence in Depth Concept
 - T. McKenna, IAEA, Strengthening Defence in Depth in Emergency Preparedness and Response by Pre-establishing Tools and Criteria for the Effective Protection of the Public During a Severe Reactor Emergency

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- **Robustness of on-site arrangements**
 - National experience based on findings of stress test
 - On-site safety barriers and off-site emergency arrangements (facilities and organisation)
 - Functionality of the safety provisions e.g. design and implementation of a hardened safety core for NPP
 - Deployment of nuclear rapid response force – to bring sufficient human and materials resources to increase autonomy of the site

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- **Details of Beyond Design Basis Severe Accident Management**
 - Implementation of Beyond Design Basis Accidents Management Guidance
 - National experience of systematic review and steps of development

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- **Flexibility and extendibility of pre-planned arrangements during application in actual emergency:**
 - Important prerequisites to meet all goals of emergency response as a last layer of defence in depth
 - Training for all involved in response including high level communicators and decision makers
 - Teams in charge of emergency management should be trained to address the unexpected

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- **International Emergency Preparedness and Response (EPR) framework**
 - Application of international Safety Standards in Member States
 - Importance for all countries to have adequate level of EPR
 - as application of national EPR arrangements in actual emergency in an Accident State will have implications to all other countries.