

CNRA Activities on New Reactors

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Contents

- ◆ NEA Committee on the Nuclear Regulatory Activities
- ◆ WGRNR Mandate and Membership
- ◆ Programme of Work (PoW)
 - Construction Experience Database/Assessment
 - Survey on the Regulation of Site Selection and Preparation
 - Develop Report on Licensing Process and Structure of Regulatory Activities
- ◆ Expected Use of WGRNR Results and Products

Committee on Nuclear Regulatory Activities (CNRA)

- ◆ One the 7 NEA standing committees, made up of senior nuclear regulators
- ◆ Responsible for the programme of the NEA, concerning the regulation, licensing and inspection of nuclear installations with regard to safety.
- ◆ It comprises 4 working groups on Operating Experience, Inspection Practices, Regulation of New Reactors and Public Communications
- ◆ CNRA products: Green Booklets, WG's Reports, Workshop Proceedings

Working Group on the Regulation of New Reactors (WGRNR)

- ◆ Established in 2007
- ◆ Responsible for the programme of work in the CNRA dealing with regulatory activities in the primary program areas of siting, licensing and oversight for new commercial nuclear power reactors (Generation III+ and Generation IV reactors).
 - Forum of experts for the licensing of new NPP
 - Co-ordinate its work with the work performed by MDEP
 - Closely co-ordinate its work with others CNRA and CSNI WGs and international organisations

WGRNR Current Membership

- ◆ Chair – Mrs. Laura Dudes (USNRC)
- ◆ Vice Chair – Mrs. Rosa Sardella (ENSI)
- ◆ Participating Countries
 - Canada, Czech Republic, Finland, France, Hungary, Japan, Korea (Republic of), Russian Federation, Slovak Republic, Slovenia, Spain, Switzerland, United Kingdom, United States of America
 - IAEA and EC
- ◆ Expected Participants
 - Italy, Poland, China, South Africa, United Arab Emirates

Construction Experience Database (ConEx)

◆ Objective

- To develop a database of findings and deficiencies related to design, construction, and commissioning of new NPPs
- to provide the means for assessing the findings in order to extract and share construction experience lessons learned, developing a qualitative assessment scheme on the safety significance
- Past construction experience will be included if the lessons learned are applicable to new reactors

◆ Existing records involving French, Finnish, Japanese, UK and US findings

Construction Experience Database (ConEx)

- ◆ An Evaluation and Clearinghouse group is established to assess the findings in order to extract and share construction experience lessons learned

- ◆ Periodic assessments of construction experience
 - Synthesize report of the current information available on construction experience, underlying causes and lessons learned

 - Identify areas for future activities

Regulation of Nuclear Sites Selection and Preparation

- ◆ Report based on a survey is under development, covering the Evaluation and selection of nuclear sites as well as the Preparation of the selected site
- ◆ Review practices used by regulators in NPP siting
 - ❖ Seismicity, security, multi-units
- ◆ Consider regulatory practices on sites where a mixture of activities is taking place
 - ❖ Operating units, decommissioning

Regulation of Nuclear Sites Selection and Preparation

- ◆ Further considerations under review
 - Public consultation/involvement during the site selection process
 - Definition of construction, site preparation
 - Commissioning activities
 - Impact of the site on the design

Licensing structure of Regulatory Staff and Regulatory licensing process for new reactors

- ◆ Review of recent regulatory experience
 - licensing structures,
 - number of regulatory personnel and the skill sets needed to perform reviews, assessment and construction oversight, and
 - training needed for these activities

- ◆ Comparison report on the licensing processes
 - level of detail of design information needed for regulatory authorisation at the various stages of licensing

Interaction with MDEP

- ◆ Most of the MDEP countries participate in the WGRNR
- ◆ Joint meetings of MDEP STC and WGRNR Chairs
- ◆ Report on current status of MDEP in all meetings of the WGRNR and vice versa

Expected Use of WGRNR Results and Products

- ◆ Uses and Feedback for design and siting reviews and construction oversight of the ConEx collection and assessment
- ◆ Improvement of the regulatory reviews of the Site Selection and Preparation thru the comparison report on current practices used by member countries
- ◆ Enhancements of the regulatory licensing process by the comparison of best practices used in member countries
- ◆ Promote cooperation among member countries to feedback the experience to safety improving measures, enhancing the efficiency and effectiveness in the regulatory process

Working Group on New Reactors: Summary

- ◆ Complementary to MDEP
- ◆ Broadens MDEP work to wider range of nuclear regulators
- ◆ Looking at the regulatory activities associated with the implementation of regulatory Design Evaluation, e.g.
 - Licensing sites
 - Regulating Construction
 - Regulating Supply
 - Regulating commissioning
- ◆ Aims to maximise mutual learning, harmonisation, efficiency and effectiveness of regulation of new reactors construction, commissioning, etc
- ◆ Uses the work of other CNRA, CSNI, NEA working groups and committees – acts as the interface