

## **Opening Remarks**

# **International Experts Meeting on Strengthening Research and Development Effectiveness in the Light of the Accident at the Fukushima Daiichi Nuclear Power Plant**

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## **Welcome and Introduction**

- Good Morning ladies and gentlemen, and welcome to the 8th International Experts' Meeting focusing on Strengthening Research and Development Effectiveness in Light of the Fukushima Daiichi Accident, which is being held within the framework of the IAEA Action Plan on Nuclear Safety
- First, I would like to repeat the appreciation of the Agency to the Chairman for this meeting, Mr Bismark Tyobeka, Chief Executive Officer of National Nuclear Regulator, South Africa, and to his Co-Chair Mr. Brian Sharon, Director of the U.S. Nuclear Regulatory Commission's Office of Nuclear Regulatory Research and Chair of the NEA Committee on the Safety of Nuclear Installations.

## **Nuclear Safety Action Plan**

- As you know, the Action Plan was unanimously endorsed by Member States at the 2011 IAEA General Conference. The primary focus of the Action Plan was to define a programme of work to strengthen the global nuclear safety framework. It furthered called upon the IAEA Secretariat, Member States and other stakeholders to implement the Action Plan in a comprehensive and coordinated manner.
- Effectively utilizing research and development is one of the Actions within the Action Plan. In particular, the action plan calls on relevant stakeholders, assisted by the IAEA, to conduct necessary research and development in nuclear safety, technology and engineering relevant to existing nuclear power plants and new designs.
- While the IAEA is not a research oriented organization—it does however, promote it and is called upon to utilize the results of research and development and to share them to the benefit of all Member States. The importance of Research and Development as reflected in the Action Plan was further stressed at the Fukushima ministerial conference, at which the international community reconfirmed commitments to strengthen nuclear safety. While the IAEA provides assistance to member States it also values cooperation with other stakeholders in this endeavour. This coming week demonstrates that international organizations, such as the IAEA, WANO, EC and OECD/NEA among others, play an important role as a hub for international research work and a platform for information sharing.

- This IEM provides a forum to exchange information and experience related to research and development work undertaken in light of the Fukushima Daiichi accident, with a view to assisting Member States in planning and implementing research and development activities in nuclear safety and technology for existing power plants and ones planned.

### **The Importance of Research and Development**

- The successful utilization of nuclear power has been built on a strong foundation of research and development activities. It remains an essential element of nuclear safety and its continued support is very important.
- Nuclear power programmes in Member States can span many generations with nuclear plant can now be expected to operate for 60 years or more. This requires that the plants are well maintained and upgraded throughout their operating lifetimes and operating experience and the results of research and development are effectively utilized to continually maintain and improvement safety. The extension of operating lifetimes, the onset of decommissioning, the introduction of new technologies and ageing of the workforce all pose unique challenges requiring new solutions.
- Improved knowledge will be necessary to both operate and regulate current reactors efficiently and effectively as they age and to provide the scientific and technical basis for the development of new reactor designs and the means for management and disposal of radioactive waste. These topics are reflected in your programme for this week with the technical sessions on technologies to prevent and mitigate severe accidents, emergency preparedness and response and post-accident recovery.
- Improvement in knowledge is only one dimension—its application to the design, operation and maintenance of an NPP is essential if safety is to be strengthened. This application will improve staff competence and maintain the knowledge base necessary to enable sound design, operational and regulatory decisions and the provision of strong oversight of licensees' activities.
- Member States efforts in safety research have been generally supported by governments, design organizations and electrical utilities, operating organizations, research institutions and universities. International co-operation on research and development activities is important to reach a common understanding on major safety issues as a way to avoid duplication of efforts and reduce costs.
- Maintaining the infrastructure necessary for supporting research and development for nuclear safety is an important means to maintain a constant pool of expertise. Article 11.2 of the Convention on Nuclear safety requires Contracting Parties to take “the appropriate steps to ensure that sufficient numbers of qualified staff with appropriate education, training and retraining are available for all safety related activities in or for each nuclear installation, throughout its life”.

- With regard to the CNS, on Monday last week the Vienna Declaration on Nuclear Safety was unanimously adopted by the Contracting Parties to the Convention on Nuclear Safety (CNS). The Vienna Declaration, related to the design and construction of nuclear installations, is part of an ongoing international effort to strengthen nuclear safety in the wake of the Fukushima-Daiichi accident in Japan. The Declaration contains a series of principles to guide countries in the implementation of the objectives of the CNS, addressing the prevention of accidents through design, and the prevention and/or mitigation of radioactive releases. This strengthens the importance of R&D to address these principles in concrete terms.

**In closing**

- In light of the Fukushima accident, the importance of this week's topic underlines the fact that Research and Development is paramount to the further development of nuclear safety worldwide.
- Over the course of the next four and a half days, you will have the opportunity to share your experience and expert views with your peers and to identify lessons learned as well as to flag issues that need to be addressed.
- With that said, I look forward to the discussions during the course of this week and to the Chairman's Summary at the closing session on Friday.
- Thank you for your attention.