

International Ministerial Conference “Nuclear Power in the 21st Century”

St. Petersburg, June 27 to 29, 2013

Concluding Statement by the President of the Conference

The International Ministerial Conference on Nuclear Power in the 21st Century was held in St. Petersburg, Russian Federation, from 27 to 29 June 2013, attended by ministers, high-ranking officials and experts from 87 States and 7 international organizations, with over 500 participants. This conference was organized by the International Atomic Energy Agency (IAEA) in cooperation with the Nuclear Energy Agency (NEA) of the Organisation for Economic Co-operation and Development (OECD), and hosted by the Government of the Russian Federation through the State Atomic Energy Corporation "ROSATOM".

The aim of the Conference was to provide an opportunity to discuss and review the status and prospects for nuclear power, and to offer a forum for many countries considering the potential benefits of adding or expanding nuclear power in the energy mix. The participants exchanged views on the future role of nuclear power through national statements, presentations, discussions and consultations.

The Conference covered a wide range of issues, including energy resources and the environment, contributions to sustainable development, efforts to continuously improve nuclear safety, infrastructure development and fostering deployment of innovations in nuclear power. There was a convergence of views among participants on a broad range of issues.

While respecting the right of each State to define its national energy policy, the Conference recognized that nuclear power remains an important option for many countries to improve energy security, reduce the impact of volatile fossil fuels prices and mitigate the effects of climate change, despite the accident at the Fukushima Daiichi Nuclear Power Station of Tokyo Electric Power Company (the Fukushima Daiichi accident). Nuclear power, as a stable base-load source of electricity in an era of ever increasing global energy demands, complements other energy sources including renewables. Many countries participating in the Conference—mostly in the developing world—are interested in launching nuclear power programmes, and several countries intend to expand their use of nuclear power. After 27 years, the first construction of a nuclear power plant has started in a newcomer country.

Participants welcomed the opportunity to discuss further development of nuclear power, while emphasizing the importance of ensuring high levels of nuclear safety. It is fully recognized that nuclear accidents have no borders and nuclear safety must

be robust, effective and transparent. The Conference noted that an overwhelming majority of Member States with operating nuclear power plants have undertaken and completed comprehensive safety reassessments with the aim of evaluating the design and safety aspects of plant robustness to protect against and mitigate the effects of severe natural events. They have introduced additional measures to strengthen plant safety, improve regulatory oversight and enhance emergency preparedness and international collaboration.

It was emphasized that, while the global nuclear safety framework has been strengthened, all countries have a common interest in and are committed to continuously improving and strengthening nuclear safety, emergency preparedness and radiation protection of people and the environment worldwide, taking into account all the lessons learned from the Fukushima Daiichi accident. Participants reaffirmed their commitment to the IAEA Action Plan on Nuclear Safety and are working to ensure measures to improve nuclear safety are taken into account. The Conference noted that to foster an informed understanding of nuclear power, public communication should be timely, clear, transparent, objective and easily understandable. Public communication should address the effects of radiation and be based on scientific knowledge.

Participants affirmed that it is the responsibility of each State to establish the appropriate and adequate legal and regulatory framework and implement specific measures to fulfil the obligations pertaining to nuclear safety, nuclear security and safeguards. International cooperation was considered extremely important and should be further encouraged. The Conference recognized the need to work for the establishment of a global nuclear liability regime that addresses the concerns of all States that might be affected by a nuclear accident with a view to providing appropriate compensation for nuclear damage.

Through continuous improvements and innovations in technology and management, nuclear power has become safer and more reliable. These measures implemented at nuclear power plants have resulted in safety and performance enhancement as well as demonstrated good safety records. Following this approach, many currently operating reactors have been granted life extensions following acceptance of a safety assessment by the regulatory body.

The Conference emphasised that the establishment of an appropriate nuclear power infrastructure, taking into account IAEA safety standards and relevant guidance, is essential for the development of nuclear power programmes. International cooperation among countries experienced in nuclear power and those developing nuclear power programmes is very important and should be encouraged. Competent human resources are a key component for all nuclear power programmes, including expanding and new ones. Governments play an important role in developing and maintaining capacities to sustain nuclear power programmes. Partnerships and collaboration were encouraged among governments, industry, and academic

institutions and with their relevant counterparts in other countries to make a valuable contribution to capacity building. Several financing models to construct nuclear power plants were discussed and it was noted that build-own-operate arrangements are being introduced for the first time.

The Conference recognized that for the countries which have developed necessary nuclear power infrastructure, optimizing a combination of technology design, reactor size, and financial and ownership models to fit countries' needs may make it easier to introduce nuclear power in the future.

The Conference reiterated that the safe management of spent fuel and disposal of radioactive waste are of great importance for the sustainable development of nuclear power. Participants welcomed notable progress made towards the final disposal of spent fuel and high level radioactive waste and encouraged further efforts in this regard. Appropriate steps should be taken to ensure that adequate financial resources are available and strategies are in place to support the safe management of spent fuel and radioactive waste.

Conference participants recognized continuous improvements in the evolution of reactor designs over the years. Designs of future reactors are expected to have more advanced safety features. Many participants recognized that fast reactors, closed fuel cycles and re-using of nuclear fuel are some of the key options in enhancing the sustainability of future nuclear systems. Fast reactors can reduce waste streams and improve efficient use of uranium. The Conference discussed contributions to enhancing the sustainability of nuclear power globally, including for example the use of thorium as an alternative fuel.

Technology development is diversifying to meet a wide range of conditions for deployment of new reactor designs, including small and medium sized reactors. These reactors may allow for expanded use of nuclear power- including on smaller grids and in remote settings, as well as for non-electrical applications- and improve the access to nuclear energy, including for developing countries. The Conference reiterated that governments play an important role in fostering research and development and streamlining licensing and regulatory approaches.

The Conference recognized the leading role of the IAEA in promoting peaceful uses of nuclear energy, in establishing safety standards and security guidance, and in promoting international cooperation and efforts to strengthen global nuclear safety, nuclear security and safeguards. The Conference further emphasized the central role of the IAEA in strongly encouraging, promoting, facilitating and coordinating international cooperation among Member States and international organizations such as the OECD/NEA and efforts to continuously strengthen global nuclear safety and the development and use of nuclear energy for peaceful purposes, including the generation of electric power.

The Conference concluded that for many countries nuclear power is a proven, clean, safe, and economical technology that will play an increasingly important role in achieving energy security and sustainable development goals in the 21st century. The goal of the Conference was achieved, and participants looked forward to the next ministerial nuclear power conference in four years' time.