

8thRoK-UN Joint Conference
on Disarmament and Non-proliferation Issues

Report

Session III: Promoting peaceful uses of nuclear energy

Chair: Dr. William Potter

Rapporteur: Dr. Daniel Pinkston

Mr. Ian Hore-Lacy of the World Nuclear Association gave an industry perspective on the current status and prospects for growth in future power generation. He noted that most electricity today comes from coal (about 40%), natural gas (about 20%), hydro (about 16%) and nuclear (about 15%), and coal is widely used in China, the USA and Europe. He also noted that world demand for electricity is expected to double by 2030 and that there will be a large demand for continuous, reliable supply on a large scale (known as base-load), which limits the contribution of non-hydro renewable supplies. He argued that nuclear energy is clean, safe, and environmentally friendly since it does not produce green house gases. He also argued that nuclear energy is economical even though it requires a lot of investment for plant construction. Uranium is plentiful and fuel costs are low. He was also optimistic about technical solutions to proliferation problems, which are limited to a few problematic countries.

Dr. Sharon Squassoni gave a less optimistic view on nuclear energy and dubbed the so-called “nuclear renaissance” a new “nuclear energy enthusiasm.” Her view on the current context was:

- Nuclear energy -- Great enthusiasm; limited infrastructure, supply for now; efforts to restrict enrichment and reprocessing
- Nuclear proliferation -- Stalemate with Iran, particularly on uranium enrichment
- Can expansion of nuclear power for all sidestep enrichment/ reprocessing issues? How best to manage risks?

Her main conclusions were:

- Nuclear renaissance or not, “nuclear enthusiasm” has proliferation implications
- Securing constraints on fuel cycle capabilities should be top priority

She argued that many of the future reactors being designed now might not be appropriate for developing countries, which is where much of the demand is expected. Many of these countries are also in regions with acute security problems and nonproliferation challenges. She also provided three scenarios for nuclear energy growth, and argued that a large expansion in nuclear power is not certain.

Mr. Hossam Eldeen M. Aly discussed international cooperation to promote peaceful nuclear energy. He introduced some governing parameters for international cooperation for peaceful uses of nuclear energy which include:

- Political and Economic Parameters:
 - Impact of global energy crisis vs. global economic/financial crises.
 - Regional, North-South and South-South technology transfer trends.
 - Economic motivations versus political considerations.
- Legal requirements:
 - CSA, non-proliferation record, Additional Protocol?
- Practical and Technical Parameters:
 - Actual need for a certain Nuclear power generation potential.
 - National independent regulatory body.
 - Nuclear safety, security, waste management considerations... etc.
 - Regional considerations and long term potential of a nuclear fuel cycle.

He also analyzed some of the international developments such as:

- Implications of UNSC approach to NPT non-compliance.
- Competing dynamics of the global economic and energy crises?
- Legitimacy of the call for a “proliferation resistant” nuclear fuel cycle?
- Impact of NSG’s exemption of India on the AP debate.
- Outcome of discussions on voluntary nuclear fuel assurances.
- Outcome of the debate on multilateral approaches to nuclear fuel cycle.
- Possible outcome of US Summit on Nuclear Safety and Security.
- Continued production of some NNWS continue of their own fuel,

He provided an extension list of issues for the 2010 Review Conference, and expressed his views on how the Review Conference can deal with the issues of the international cooperation for peaceful uses of nuclear energy.

Dr. Yury Yudin presented a comparative approach to the existing MNA proposals. He began his presentation by mentioning why the discussions on MNA has rekindled over the past years and explained the IAEA Director General’s proposal for a three-stage process in developing a new multilateral mechanism and other existing proposals on MNA in a comprehensive manner.

He mentioned some points of agreement among the current proposals such as:

- Any multilateral mechanism should not disturb the international market for nuclear fuel cycle services;
- The establishment of multilateral fuel cycle arrangements should be implemented step by step;
- There would be no uniform approach that would be satisfactory for all technologies and all countries and that successful implementation of the multilateralization would depend on the flexibility of its application.

At the same time, he explained that there would be no single multilateral formula that would be satisfactory for all technologies and countries and that the establishment of multilateral fuel cycle arrangements should be implemented step by step. He also said that any real progress toward a multilateral approach to the nuclear fuel cycle can be achieved only in the context of broad agreement between the suppliers and the customer side, stressing the importance of building trust among states.

Mr. Hee-Seog Kwon spoke about multilateral cooperation for the back-end nuclear fuel cycle, focusing on the issues relating to spent fuel management, specifically how the international nuclear establishment grapples with ever increasing spent fuel challenges through multilateral cooperation on the basis of the three basic options; closed cycle, once-through cycle (open cycle) and long-term interim storage in dry cask (wait-and-see option).

He focused on the situation in the IAEA and GNEP as the most relevant forums among various entities dealing with multilateral cooperation on fuel management as those two adopted a systematic and action-oriented approach to this issue. However, he said that the overall status of multilateral cooperation in this area remains flimsy and it will take quite a long time for the multilateral cooperation to reach the point of making a concrete proposal or implementing a meaningful project. He also analyzed why the international community focus on the front-end issue and why not consider the back-end issue so seriously. He also referred to the urgency of the back-end problem for Korea.

His conclusion is that an effective and efficient multilateral cooperation for the back-end fuel cycle is strongly needed to ensure the long-term viability of nuclear power worldwide and it is high time for key nuclear power states to muster political will and resources to address squarely the spent fuel challenges.

Amb. Libran Cabactulan presented his view on the overall prospects for the 2010 Review Conference. He expressed his thanks for all the supports received over past months. He reviewed the positive outcome of the Preparatory Committee in 2009 and mentioned the prospects for the 2010 Review Conference referring to both substantive and procedural challenges to be addressed at the Review Conference. Finally he expressed his determination to serve as a managing facilitator and honest broker and stressed his readiness to work closely with all the States Parties with a view to a successful Review Conference.

During subsequent discussions, one participant reiterated the importance and urgency of developing a multilateral approach to fuel cycle citing its own country's particular situation and needs. On fuel supply assurance issue, views were expressed that although "haves" are now demanding renunciation of enrichment and reprocessing technology, it is extremely difficult to ask for renunciation of such a sensitive technology for fuel supply guarantee and that "all or nothing" approach regarding the restrictions on such technologies is not appropriate. Other participant is also skeptical of requiring abandonment of such technologies and pointed out that most of the current proposals on fuel supply assurance do not require it. It was also noted that as many developing countries have suspicions on fuel supply assurance proposals building confidence is very important to move forward to make the existing proposals successful. It was suggested that multilateralization of nuclear fuel cycle could be final solution although it is not a panacea.

On the 2010 NPT Review Conference, it was noted that unlike the Review Conference in 2005 we will be able to start discussion on the substantive issues from the beginning which would make the conduct of the conference easier and smoother. On the issues to be addressed at the Review Conference, it was pointed out that State Parties should go to the Conference with the view that everything should be on the table for discussion and we should reach consensus on some things, and then table the other items where we disagree for further discussion. The ideas on institutional arrangements to strengthen the review process such as annual meeting, extraordinary meeting, and the establishment of standing bureau or permanent support unit were raised. Some mentioned that there is a need for strong institutional support so that State Parties can't get out of the treaty.