

<p>Official conclusions approved by both chairmen 3-5 November Workshop</p>	<p style="text-align: right;">16 Nov. 2009</p>
<p><b>Chairmen:</b> <b>Mr. A-C. Lacoste &amp; Mr. W. H. Rasin</b> <b>Scientific Secretaries:</b> <b>Mr. M. Aoki &amp; Mr. S. Calpena</b></p>	<p style="text-align: center;"><b>Nuclear Power Newcomers And International Cooperation</b></p>

It was again a successful workshop with more than 120 Member states' participants from 49 countries and WANO, with lively questions, remarks and discussions amongst participants.

1. One of the objectives of the workshop was to understand the issues that newcomers are currently facing in introducing their nuclear power programmes in safe and sustainable ways. It has to be underlined that newcomers were very honest and very open about their difficulties during this workshop.
2. Newcomers might be expecting too much from the IAEA, EU, vendor countries or other foreign organizations (and sometimes free of charge). Strong national commitments and efforts following a robust political decision to introduce nuclear power within the country are essential to succeed in embarking on nuclear power.
3. Political and economical stability and continuity within the country embarking on nuclear power is essential to launch a nuclear power programme.
4. Human resource development and keeping qualified and trained staff (brain drain) within the newcomer country is one of the main identified issues. Furthermore, all industrial skills are essential to embark on a large scale industrial project including those of welders, constructors, mechanics, electricians, heavy load transporters, logisticians, technicians rather than PhDs.
5. Establishing or consolidating the national newcomer's legal and regulatory framework could be a complicated and difficult challenge which may take more time than expected.
6. Newcomers need to be intelligent customers. This means that they need to understand the technology, the process to embark on nuclear power and to be able to coordinate all assistance programmes provided from foreign countries, EU or international organizations to build up their nuclear infrastructure. Such coordination should be enhanced for most newcomers.

This workshop appeared to be of interest and useful for newcomers not only to gather relevant information from vendor countries but also to share information amongst newcomers. Such cooperation between newcomers could be enhanced with dedicated workshops in Vienna or at regional levels.

The IAEA should perhaps facilitate newcomers' efforts to coordinate all assistance programmes and information sharing coming from foreign countries, EU and international organizations.

Likewise, vendor countries should also consider coordinating their own nuclear stakeholders for better assistance towards newcomers.

7. Transparency, openness and involvement of the public and stakeholders in the development of a nuclear power programme should start before the decision to introduce nuclear power, be carried on with continuity throughout all the NPP lifetime, should also include how to deal with spent fuel and radioactive waste management.

8. Localization should be anticipated and carefully planned by newcomers in their national strategy when importing nuclear power technology.

9. We encourage newcomers to request peer review services (INIR and Tailored IRRS). Such review services which include self-assessment should be undertaken on periodic basis before the NPP construction with the main results to be disclosed to other countries and interested parties. Such reviews along with:

- “Milestones in the development of a national infrastructure for nuclear power”
- “Evaluation of the Status of National Nuclear Infrastructure Development”

should be consolidated with recent IAEA guidance such as:

- “Establishing a safety infrastructure for a national nuclear power programme” (DS424 sent to member states for comments);
- “Governmental and regulatory framework for safety” (DS415 recently approved by the CSS)
- “Licensing process for nuclear installations” (DS416 recently approved by the CSS).

10. Other NE/NS joint workshop like this one should be organised again. Different format could be elaborated to give more room to newcomers’ organizing discussions with breakout sessions and/or regional workshops.

## APPENDIX – PREVIOUS WORKSHOPS

### **MAIN CONCLUSIONS of Mr. A-C LACOSTE for the previous workshop on “the roles and responsibilities of vendor countries and countries embarking on nuclear power” (1-3 July 2008).**

1/ This workshop was a success. Over 100 participants from 45 countries came and participated actively, filling in questionnaires in advance, making good quality and open presentations, and contributing to interesting discussions.

2/ Embarking on a nuclear power programme and establishing a national safety infrastructure is a complex process involving the development of a governmental, legal and regulatory framework as well as the necessary training and expertise for all nuclear stakeholders: regulatory body, operator, technical support organizations, etc.

3/ It is important to acknowledge that embarking on a nuclear power programme is a long process for nuclear newcomers, historically lasting about 15 years until the first nuclear reactor becomes operational. Such a figure appeared in different presentations and should be taken into account when preparing national strategies.

4/ Nuclear safety is and must remain a national responsibility which cannot be delegated. Newcomers' money cannot substitute ownership and commitments to safety and security.

5/ Nuclear newcomers should sign, ratify and apply the package of Treaties and Conventions, including the Vienna Convention on Civil Liability for Nuclear Damage, to join the nuclear community.

6/ International leverage should be enhanced through IAEA actions, bilateral or multilateral arrangements, the Multinational Design Evaluation Programme (MDEP) initiative, etc. This should include cooperation and interactions between regulators of vendor and buyer countries.

7/ Vendor countries have moral responsibilities and common interests and the IAEA may support them to create adequate safety infrastructures in countries embarking on nuclear power. In addition, the Convention on Nuclear Safety may be used as a mechanism for sharing steps and actions for transferring nuclear technology to nuclear newcomers.

8/ IAEA Safety Guides should be enhanced or developed for countries embarking on nuclear power programmes, taking into account INSAG recommendations, IAEA documents, and mechanisms to reinforce the global nuclear safety regime. These guides should be made available on the Web to be revised and enhanced soon by interested parties.

9/ Systematic IAEA tailored review services, especially Integrated Regulatory Review Service (IRRS) and pre-OSART missions for countries embarking on nuclear power, should be a prerequisite at different stages of a State's nuclear power development.

10/ Finally, this type of Workshop gathering all interested parties from NPP vendor countries and newcomers should be repeated on a regular basis, maybe every 18 months or 2 years. Next time it would be of benefit to all if nuclear newcomers came to present their particular situation, and difficulties and challenges in developing safety infrastructure to embark on their nuclear power programme.

**MAIN CONCLUSIONS of Mr. W.H. RASIN for the previous workshop on “Evaluation Methodology for Nuclear Power Infrastructure Development” – (December 2008).**

I believe we have had a successful workshop. This is the third annual workshop in which I have participated. Our mutual understanding of the issues is not perfect. The guidance developed and provided is not perfect.

However, your understanding of the difficult task of developing a success programme for the peaceful application of nuclear energy has, in my mind, greatly increased over the past 2-3 years and our understanding of your difficulties and concerns has also greatly increased.

We wish we could tell you exactly how to proceed to develop your program, exactly how many people you need on the NEPIO, and exactly how much it will cost. But the reality is that you know more about the political and economic challenges you face than we do. So you must take ownership of your own destiny.

However, I can tell you that, from what I see, the IAEA, the developed countries and the technology holders do sincerely wish to help you.

Let me make some comments on the specific topics of this workshop. First the NEPIO. As I said in my opening comments, NEPIO is a concept. It needn't be called a NEPIO or be organized by any stringent guidance. As you have seen from the presentations of Member States on their present efforts and from the case studies of the very successful programs of South Korea, Finland and Japan, the guiding organizations are or were not called “NEPIO”. Nor were they organized exactly as described in the current Agency guidance. But they all had in common the objective of addressing the issues necessary to create a successful domestic nuclear energy program. It is striking that the historical development of the programs of South Korea and Finland can be described within the context of what we are now calling NEPIO.

So call the NEPIO what you will and organize it as you feel appropriate. But focus on the issues it must address within the context of your particular situation.

With respect to the Evaluation process and criteria, you have expressed a desire for additional help in how to conduct a self-assessment and the criteria for determining whether “significant actions”, “minor actions” or “no actions” are necessary.

This information may be best obtained by the presentations of case studies in a future workshop rather than by a new guidance document.

I am somewhat troubled by the feeling that these evaluations or assessments are just a test you must pass. While in some way that may be true, especially for Milestone 2 in reality, these evaluations or assessments are one of the most valuable mechanisms by which you may be guided to develop a most successful program.

In my closing remarks at last year's workshop, I expressed the thought that a rigorous self assessment process was almost counter to human nature.

To paraphrase the comments of one of our colleagues at this meeting: We are all proud and happy to discuss our good practices, we are equally reluctant to admit our own shortcomings.

Yet the ability to face these shortcomings and deal with them is the path to a truly excellent organization and a sign of an enlightened management. This is a lesson that the nuclear industry has discovered that many other businesses are just beginning to learn.

So I would encourage you to view these evaluations or assessments as opportunities to improve, not as obstacles to overcome.

It has been my honour and pleasure to serve as chairman of your workshop. I hope that I may continue to have the opportunity to interact with you as you proceed with the difficult task of bringing the benefits of the peaceful applications of nuclear energy to your countries and your people. Thank you.