

International Atomic Energy Agency  
Technical Cooperation Project  
INT/4/141  
“Status and Prospects of Development for and Applications of  
Innovative Reactor Concepts for Developing Countries”

**PROSPECTUS**

**Title:** Workshop on Steps for Conducting Nuclear Power Plant Technology Assessments

**Place:** Vienna International Center, Vienna, Austria  
Room M0E Press Briefing Room

**Date:** 17-20 November, 2008

**Deadline for nominations:** **12<sup>th</sup> September, 2008**

**Organizers:** The International Atomic Energy Agency (IAEA)

**Languages:** English

**Target Countries:** Algeria, Angola, Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Bolivia, Brazil, Bulgaria, Burkina Faso, Cameroon, Chile, China, Croatia, Czech Republic, Dominican Republic, Egypt, Estonia, Ethiopia, Georgia, Ghana, Greece, Hungary, India, Indonesia, Jordan, Kazakhstan, Kenya, Latvia, Libyan Arab Jamahiriya, Lithuania, Malaysia, Mexico, Republic of Moldova, Mongolia, Morocco, Namibia, Nigeria, Pakistan, Philippines, Poland, Republic of Korea, Romania, Senegal, Slovakia, Slovenia, South Africa, Sudan, Syrian Arab Republic, United Republic of Tanzania, Thailand, Tunisia, Turkey, Ukraine, Uganda, United Arab Emirates, Uruguay, Venezuela, Vietnam, Yemen.

It would be highly appreciated if participants from China, India, Republic of Korea and countries from the European Union were sponsored by their own organization, as in previous workshops organized under this project (cost free participants)

Other interested countries are welcome to attend at their own cost.

**Background:** Technology Assessment is defined as an exercise conducted by a country to determine, which Nuclear Power Plant (NPP) designs and associated Nuclear Energy System (NES) technologies may meet the needs and requirements of the country. Technology assessment is an activity that starts before the decision to launch a nuclear power programme is made and continues during the preparatory phases together with other activities such as assessment of national capabilities and the definition of the degree of national participation in the nuclear power programme, identification of appropriate sites for the NPP, establishment of a fuel cycle policy, formulation of national NES deployment strategy and plan, and selection of NPP designs and associated NES technology including preparation of bid documents and bid evaluation.

**Purpose:** The workshop will bring together relevant experts and potential users of Nuclear Energy System (NES) to exchange information focusing on:

(1) The approach and process of planning and conducting Technology Assessments of NES, focusing on Water Cooled Reactor-based Nuclear Power

Plant (NPP) designs.

(2) General concerns and needs of Member States related to technical assessment of NES during the planning phase to initiate and/or to expand a nuclear power programme.

**Participants' Qualifications and experience:**

The workshop is designed primarily for experienced technical officers of Member States responsible for planning or implementation of national nuclear power programmes. The participants should be familiar with the general progress and features of water-cooled reactor designs. Ideally, they have had experience in conducting Technology Assessment of NPP technologies, and should at least be able to comment on the general requirements of their countries regarding energy production in general and nuclear power in particular.

The participants are expected to give brief presentation, in English, on their country's perspective for the introduction or expansion of a nuclear power programme. They are expected to discuss knowledgeably their country's requirements and any issues or concerns associated with carrying out Technology Assessments. A short abstract of the presentation (minimum 300 words) should be included when submitting the application form (see Application Procedure below). It will be one of the bases for selecting candidates for participation in this workshop.

**Financial support** for participants from developing countries will be **limited to one participant per Member State**.

The participant should have a working knowledge of English as the documents and discussion will all be conducted in English.

**Nature of the workshop:**

Workshop will be conducted in the form of lectures, presentations, and roundtable/panel discussions covering the following topics:

1. Overview of the whole preparatory process for a new NPP Project, including a description of the objective and scope of Technology Assessments and where it fits in the preparatory process;
2. General consideration in Technology Assessment, such as planning a sustainable NPP programme, regulatory/licensing strategy, site and grid characteristics, overall economic impact, fuel cycle, national participation strategy, utilization/ improvement of local human resources and infrastructure, contract type and technology transfer;
3. Key areas of technical assessment of NPP designs and performance, including proven technology, safety and licensability, constructability, operability and manoeuvrability, inspectability and maintainability
4. Overview of water-cooled reactor and other NPP designs including status and performance of operating plants and global development trends;
5. Specific steps in conducting Technology Assessment such as use of existing utility/user requirement documents and NPP deployment planning model, economic evaluation method, optimization among multiple-objectives of NPP programme, preparation of questions for technology vendors, and development of NPP general requirements;
6. Specific experience from countries that have already conducted or are currently conducting technology assessments, as well as discussions on specific needs of technology user countries in particular first-time users.

The workshop, will present the draft IAEA report on “Technology Assessment in the Introduction of Nuclear Power”. Participants will be welcomed to provide comments and suggestions prior to its finalization at the end of 2008.

The IAEA report and the workshop will provide a methodology process for conducting technical assessment of a nuclear power programme. However will not assess specific designs available on the market. Member States will then be able to use the methodology and choose the design that better suits their needs.

**IAEA Responsible Officers:** **Workshop Director:** Mr. Rayman Sollychin, Nuclear Power Technology Development Section, Division of Nuclear Power, Department of Nuclear Energy; tel.: +43 1 2600 22818, e-mail: [R.Sollychin@iaea.org](mailto:R.Sollychin@iaea.org)

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**Application Procedure:** Nominations should be submitted on the standard IAEA application form for meetings and workshops. The applications should be endorsed by the official channels (the Ministry of Foreign Affairs, the National Atomic Energy Authority or the office of the United Nations Development Programme). The completed application form should be returned through established official channel between the corresponding Member State and IAEA. Applications must be received by the International Atomic Energy Agency, P.O. Box 100, A-1400, Vienna, **not later than 12 September 2008**. Nominations received after that date or applications which have not been routed through one of the aforementioned cannot be considered.

Advanced nominations by facsimile (+43-1-26007) or e-mail ([Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)) are welcomed. The facsimile/e-mail should contain the following basic information about the candidate(s): name, age, sex, academic qualifications, and present position including exact nature of duties carried out, proficiency in English, and full working address (including telephone and fax numbers, and e-mail) to enable the IAEA to make preliminary evaluation of the candidates.

**Administrative and financial arrangements:** Nominating Governments will be informed in due course on the names of the selected candidates and at that time full details will be given on the procedures to be followed with regard to administrative and financial matters.

During their attendance at the Workshop participants from developing countries, eligible to receive technical assistance, will be provided by the IAEA with a stipend sufficient to cover the cost of their accommodation, food, and minor incidental expenses. The IAEA will also provide the participants with a round-trip air ticket, economy/excursion class, from their home countries to Vienna, Austria and return. Shipment of accumulated workshop materials to the participants' home countries is not the responsibility of the IAEA

The organizers of the workshop do not accept liability for the payment of any cost or compensation that may arise from damage to or loss of personal property, or from illness, injury, disability or death of a participant while he/she is traveling to and from or attending the workshop, and it is clearly understood that each

government, in nominating participants, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.