



International Conference on Human Resource Development for Introducing and Expanding Nuclear Power Programmes

**Abu Dhabi, United Arab Emirates
14 to 18 March 2010**

Organized by the
International Atomic Energy Agency

Hosted by the
Government of United Arab Emirates

ANNOUNCEMENT AND CALL FOR PAPERS

1. INTRODUCTION

More than 50 Member States have recently approached the IAEA expressing interest in launching a nuclear power programme. In all cases the development of human resources capable of supporting the implementation of these programmes has been identified as one of the main challenges. Additionally, many of the 30 Member States that already have nuclear power programmes are either expanding, or considering the expansion of their programmes. For many of them this comes at the same time as there is a need to replace the generation of workers that commissioned the plants now in operation.

Given these needs, the education, recruitment, selection, training, qualification and retention of human resources to support the introduction and expansion of nuclear power programmes has been a matter of concern for many national governments and has attracted a great deal of attention and support from industry and international organizations. The decline in the number of younger people studying nuclear sciences and a growing number of universities giving up or strongly limiting their nuclear education programmes have given rise to new initiatives for networking educational institutions, universities and industry training centres. New national and international “platforms” for sharing knowledge and expertise in nuclear

education and training (WNU, ANENT, ENEN, ANSN, UNENE and others) have been established and have become the drivers renewed interest in nuclear education.

2. OBJECTIVES

The objective of the conference is to provide participants with practical tools that they can use at organizational, national, and international levels to develop and maintain the human resources needed to support the safe and sustainable introduction and expansion of nuclear power programmes, such as:

- Better understanding of common problems and issues regarding human resource development
- Practical guidance that can be used at the organizational and national levels to develop a sustainable human resource policy
- Identification of international cooperation approaches that could be initiated or strengthened to address human resource issues at regional and international levels

3. TOPICS

The conference will review the current state of human resource development in the nuclear area, including nuclear education and training around the world, and will address issues such as availability and opportunities for the sharing of relevant infrastructure. Human resource availability for a nuclear 'renaissance' is a key issue to be addressed in both the national and global contexts. It is anticipated that this conference will identify and further explore policies and strategies needed regarding human resource development to support both the introduction and expansion of nuclear power programmes. The conference will be organized according to the following five areas:

1. **Measures that organizations in the nuclear field (including, but not limited to: operating organizations, regulators, TSOs, universities and training centres, suppliers, and research institutes) have found useful to ensure that all personnel have the competencies needed to perform their assigned tasks.** Examples include:

- Recruiting individuals who have education and experience suitable for their positions;
- Establishing close relationships with educational institutions to obtain suitably educated new employees and to provide recommendations for improvement of curriculums in order to meet industry needs.
- Selecting individuals for positions who have the attitudes and values appropriate to work in the nuclear industry and who have the best qualifications for the position;
- Providing initial training and qualification programmes that are systematically developed and implemented based upon job responsibilities;
- Authorizing personnel to work independently based upon objective evidence that they have achieved the standards needed for their job positions;

- Providing continuing training and development programmes to ensure that personnel maintain competencies in their current positions, as well as preparing them to take on emerging tasks and/or advancement;
 - Managing training programmes such that the facilities, and human resources needed to sustain the programmes are provided, and that training provides value to the organization.
2. **Measures that organizations in the nuclear field have found useful to organize and enable work activities to achieve their objectives.** Examples include:
- Aligning human resource strategies, policies and programmes with the organization's overall goals and objectives;
 - Clearly defining job/organizational responsibilities and authorities, and appropriately designing the organization;
 - Providing employee benefits suitable to both attract and retain good performers;
 - Measuring employee satisfaction/motivation/engagement, and recognizing and rewarding performance that helps work groups achieve their goals;
 - Ensuring effective teamwork, both internal to the organization and with suppliers and contractors;
 - Providing leadership at all levels in setting and communicating organizational values and ethics (including organizational culture, mentoring, coaching, role models, observation of work).
3. **Measures that organizations in the nuclear field have found useful to anticipate future staffing, competence and performance needs.** Examples include:
- Effective workforce planning, including anticipating needs for new employees, succession planning, and assessing demographic and economic conditions;
 - Developing and maintaining effective relationships between/among industry organizations and the educational, training, research and professional organizations that support them;
 - Preserving and transferring critical nuclear knowledge to the next generation of employees, as well as among organizations responsible for initiating and expanding nuclear power programmes;
 - Identifying and planning for needed changes in both individual organization and industry processes, tools and equipment;
 - Monitoring the environment external to individual organizations and the nuclear field for conditions that may impact on human resources to support the introduction and expansion of nuclear power programmes.

- Participating in national and international programmes and activities related to human resource development.
4. **Measures that organizations in the nuclear field have found useful to continually improve individual, team and organizational performance, Examples include:**
- Establishing effective means to monitor performance;
 - Identifying performance gaps and their underlying causes;
 - Identifying and implementing appropriate solutions;
 - Establishing a learning culture, both within individual organizations and in the nuclear field;
 - Capturing, transferring and creating knowledge critical to both the individual's and organization's missions, as well as to the nuclear field, particularly as related to the ensuring the sustainability of new and expanding nuclear power programmes.
 - Sharing knowledge and experience through communities of practice.
5. **Measures that have been found to be effective in the development of innovative educational and training technology, international cooperation and networking as well as issues of "social acceptance" and prestige of the nuclear profession and how to make the nuclear industry attractive to the next generations.**

4. PROGRAMME STRUCTURE

The conference programme will be based on:

- An opening session, which will set the conference objectives. An introductory background session will include invited keynote presentations providing an overview of key issues.
- A series of topical sessions, which will examine the relevant issues. Major issues in each session will be introduced by invited senior experts. Ample time for discussion will be provided.
- Poster sessions, which will be organized for presentation of contributed papers.
- An exhibition area, for practical demonstrations of human resource related tools and methods.
- A technical visit to facilities or organizations in the host country that will provide a practical demonstration of its integrated approach to infrastructure development.

- A closing session, which will summarize the principal observations made during the conference.

5. AUDIENCE

The focus of this conference is on policy and strategy, and their implementation. Thus, the people who should attend include:

- Line managers, human resource managers and specialists, and training managers and specialists from the organizations that operate, regulate or support new nuclear power plants and other nuclear facilities;
- Government officials responsible for the introduction or expansion of nuclear power programmes;
- Administrators, department chairs and faculty of universities, polytechnic institutes and training centres;
- Managers, human resource specialists, and trainers from supplier organizations to the nuclear industry;
- Senior representatives of professional and trade organizations that support the nuclear industry;
- Leaders of national and international organizations that establish policies and programmes in areas related to human resource development of importance to the nuclear industry;
- Managers and specialists of organizations that communicate with nuclear industry stakeholders, particularly potential future employees in the nuclear industry;
- Representatives of the next generation of nuclear professionals.

6. PARTICIPATION

All persons wishing to participate in the conference are requested to **register on-line in advance**. In addition, they must send a completed Participation Form (Form A), the Paper Submission Form (Form B) (if applicable), and the Grant Application Form (Form C) (if applicable) as soon as possible to the competent official authority (Ministry of Foreign Affairs or national atomic energy authority) for subsequent transmission to the IAEA. A participant will be accepted only if the Participation Form is transmitted through the government of a Member State of the IAEA or by an organization invited to participate.

Participants whose official designations have been received by the IAEA will receive further information on the conference at least three months before the meeting. This information will also be available on the conference website:

<http://www-pub.iaea.org/MTCD/Meetings/Announcements.asp?ConfID=38090>

7. CONTRIBUTED PAPERS AND POSTERS

Concise papers on issues falling within the topics outlined in Section 3 above may be submitted as contributions to the conference. All papers, apart from invited papers, must present original work; they should not have been published elsewhere. The contributed paper should give enough information on the contents of this paper to enable the selection committee to evaluate it. Introductory and general matters should not be included.

(a) Submission of Contributed Papers

Persons who wish to present a paper at the conference must submit a four page paper preceded by an abstract not exceeding 300 words:

- Written in English
- Indicating to which of the topics outlined in Section 3 above their contribution relates
- Using the IAEA's Proceedings Paper Template in Word 2000 (instructions are available on the conference webpage)
- Following the attached IAEA Guidelines for Authors on the Preparation of Manuscripts for Proceedings
- Submitting the paper **by 30 September 2009** in hard copy through a competent national authority of the participant's country (Section 10) together with the attached Form B (Paper Submission Form) and Form A (Participation Form). In addition the paper should be submitted electronically to HR2010@iaea.org; or as CD-ROM to the Scientific Secretariat (Section 15); the CD-ROM label should indicate the title of the paper, the proposed topic and the software application used (the use of Microsoft Word is strongly encouraged)

(b) Acceptance of Contributed Papers and Posters

Only papers that have been received by the above deadline and through the appropriate official channels will be considered by the Programme Committee. The Secretariat reserves the right to exclude papers that do not comply with its quality standards and do not apply to one of the topics in Section 3 above.

Authors will be informed by mid-November if their papers have been accepted, and if they have been accepted, for oral or poster presentation. Papers that are accepted by the Programme Committee will be included in a Book of Contributed Papers which will be distributed to all participants at the conference.

8. DISTRIBUTION OF DOCUMENTS AND PROCEEDINGS

A preliminary programme will be posted on the IAEA conference website as soon as possible. The final programme and the book of contributed papers will be available free of charge upon registration at the conference. The proceedings of the conference will be published by the IAEA as soon as possible after the conference.

9. EXPENDITURES/GRANTS

No registration fee is charged to participants.

As a general rule, the IAEA does not pay the cost of attendance, i.e. travel and living expenses, of participants. However, limited funds are available to help meet the cost of the attendance of selected specialists, mainly from developing countries with low economic resources. Generally, not more than one grant will be awarded to any one country.

If governments wish to apply for a grant on behalf of one of their specialists, they should address specific requests to the IAEA to this effect.

Governments should ensure that applications for grants:

- (a) are submitted by **30 September 2009**;
- (b) are accompanied by a duly completed and signed Grant Application Form (see attached Form C).

Applications that do not comply with the conditions stated under (a) and (b) cannot be considered.

The grants awarded will be in the form of lump sums and usually cover **only part of the cost** of attendance.

10. CHANNELS OF COMMUNICATION

The Participation Form (Form A), and, if applicable, the Paper Submission Form (Form B) and the Grant Application Form (Form C) must be sent through one of the competent official authorities (Ministry of Foreign Affairs or national atomic energy authority) for subsequent transmission to the IAEA. Subsequent communications concerning technical matters should be sent to the Scientific Secretary and communications on administrative/logistical matters to the Conference Secretariat (Section 14).

11. EXHIBITS

A limited amount of space will be available for displays/exhibits during the conference. Priority will be given to those displays/exhibits that focus specifically on practical human resource development related tools and resources. Vendors providing services and products in this field, as well as educational and training organizations, professional organizations, and conference participants will be given priority access to this space. Interested parties should contact Conference@enec.gov.ae.

12. WORKING LANGUAGE

The working language of the meeting will be English. All communications must, therefore, be sent to the IAEA in English.

13. ACCOMMODATION

Detailed information on accommodation and other administrative details will be sent to all officially designated participants approximately three months before the meeting. It will also be available on the IAEA conference website.

14. VISAS

Designated participants who require a visa to enter United Arab Emirates (UAE) should submit the necessary application(s) to the nearest diplomatic or consular representative of UAE as soon as possible. Please keep an eye on the conference web site for further advice/instructions on this.

15. CONFERENCE SECRETARIAT

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16. CONFERENCE WEBSITE

Please visit the IAEA conference website regularly for new information regarding the conference under:

<http://www-pub.iaea.org/MTCD/Meetings/Announcements.asp?ConfID=38090>