



**International Experts' Meeting on
Human and Organizational Factors in Nuclear Safety
in the Light of the Accident at the Fukushima Daiichi Nuclear Power Plant**

*Organized in connection with the implementation of the
IAEA Action Plan on Nuclear Safety*

**IAEA Headquarters
Vienna, Austria
21–24 May 2013**

Announcement and Call for Papers

A. Background

Against the backdrop of the accident at TEPCO's Fukushima Daiichi nuclear power plant (NPP) in March 2011, the Director General of the International Atomic Energy Agency (IAEA) convened the IAEA Ministerial Conference on Nuclear Safety in June 2011. The Conference adopted a Ministerial Declaration which, inter alia, requested the Director General to prepare a draft "action plan on nuclear safety" covering all the relevant aspects relating to nuclear safety, emergency preparedness and response, and radiation protection of people and the environment, as well as the relevant international legal framework. The Chairpersons of the Conference's three Working Sessions addressed these aspects in their summaries and it was recommended in the Conference summary that "in spite of all recent efforts there is still room for improvement in understanding the influence of human and organizational aspects on nuclear safety in the management of all NPPs".

On 22 September 2011, the IAEA General Conference unanimously endorsed the IAEA Action Plan on Nuclear Safety. The Action Plan defines a comprehensive programme of work, in 12 major areas, to strengthen nuclear safety worldwide. The action related to communication and information dissemination requests the IAEA Secretariat "to organize international experts' meetings to analyse all relevant technical aspects and learn the lessons from the Fukushima Daiichi nuclear power station accident". This meeting is being organized in response to that request.

B. Objectives

The overall objective of this international experts' meeting (IEM) is to gather and share knowledge and experience gained in the light of the Fukushima Daiichi nuclear accident concerning human and organizational aspects — in particular, the interactions between individuals, technology and organizations and their influence on nuclear safety — as well as to identify lessons learned and best practices.

The specific objectives of the IEM are to:

- Identify the means to improve and strengthen human and organizational aspects of nuclear safety in operating and regulatory organizations;
- Analyse best practices from the responses to previous nuclear events that are being used to improve and strengthen safety culture;
- Exchange information on the interactions between individuals, technology and organizations and their influence on nuclear safety;
- Evaluate the means currently being used to improve defence in depth at nuclear facilities from an organizational perspective; and
- Identify potential priority areas for research and development.

The IEM is expected to be of particular interest to relevant government ministries, nuclear facility managers and nuclear regulators, technical support organizations (TSOs), national nuclear safety authorities, international organizations, and national and international research organizations working in the fields of human and organizational factors, high reliability, resilience engineering and safety culture.

C. Format

An opening address will be delivered by an IAEA senior management representative.

The IEM will consist of a plenary session and two parallel working sessions.

The plenary session will include keynote presentations by invited international experts. Presentations will be given by experts from the IAEA and other international organizations, as well as from Japan and other IAEA Member States, and will focus on national responses to the Fukushima Daiichi nuclear accident, such as assessments of the role of safety culture, organizational factors and their interaction with technological issues, as well as other actions. Presentations will cover updated and new knowledge used consistently by industry and regulatory representatives, and by TSOs, thus offering a broad global vision on the relevant human and organizational aspects of the Fukushima Daiichi accident with a view to stimulating discussion.

The parallel working sessions will feature presentations and discussions by international experts and participants which will focus on methods for preventing and mitigating the consequences of severe accidents based on a systemic approach as defined in *Fundamental Safety Principles* (IAEA Safety Standards Series No. SF-1, Vienna, 2006). Discussions will be held from the perspective of operating organizations, regulatory bodies, governmental organizations and TSOs.

An annotated programme will be made available on the IEM web page (see Section K below) within the following weeks.

Summaries of all the technical presentations and discussions, including lessons learned, and recommendations for further activities, including input for future research and development areas and their priorities, will be prepared by the Chairperson and the co-Chairpersons of the IEM and will be presented to the closing plenary session.

D. Topics

The participants of the IEM will share knowledge and experience, as well as identify lessons learned, in the areas described below. Input from other on-going IAEA activities will provide additional information for the meeting. The overall themes of the two working sessions and the specific topics to be covered are as follows:

- **Human and organizational factors in nuclear safety**
 - The interaction between individuals, technology, and organizations;
 - The role of a systemic perspective in severe accident management strategies;
 - Managing the unexpected through an organizational defence in depth approach;
 - Regulatory challenges in the interaction of individuals, technology, and organizations in the management of safety;
- **Influence of culture on the management for safety**
 - Organizational and safety culture and their influence on the management for safety;
 - Leadership and management for safety;
 - Chain of command and decision making process in both regulatory bodies and operating organizations during an emergency;
 - The influence of all stakeholders on the basic assumptions, behaviours, competence and conditions that can affect safety.

Presentations will be given on each topic by internationally recognized experts in their respective areas.

E. Contributed Papers

Concise papers on issues falling within the topics outlined in Section D above may be submitted as contributions to the IEM. All papers, apart from invited papers, must present original work and should not have been published elsewhere.

(a) Submission of synopses

Experts from IAEA Member States who wish to present a paper at the IEM must submit an extended synopsis (in English) of maximum 800 words (i.e. two A4 format pages of single spaced typing, or the equivalent, including any tables or diagrams and a few pertinent references), together with a completed Form for Submission of a Paper (Form B) and Participation Form (Form A), to the competent official authority for subsequent electronic transmission to the IAEA (official.mail@iaea.org). These documents must be received by the IAEA by **15 February 2013**. In addition, the synopsis must be sent electronically to: iem5@iaea.org. The synopsis should give enough information on the content of the proposed paper to enable the Selection Committee to evaluate it. Introductory and general matters should not be included.

Authors are urged to make use of the “Extended Synopsis Template” available on the IEM web page, as well as of the attached sample extended synopsis.

(b) Acceptance of papers

The synopsis will be considered only if the Participation Form (Form A) and Form for Submission of a Paper (Form B) have been received by the deadline and through the appropriate official channels.

In order to provide ample time for discussion, the number of papers that can be accepted for oral presentation is limited. If the number of relevant and high quality papers submitted for selection exceeds the acceptable number, some of them may be selected for poster presentation.

Authors will be informed by **15 April 2013** whether their paper has been accepted by the Selection Committee on the basis of the synopsis submitted. At the same time, authors will be advised whether their paper has been accepted for oral presentation. Advanced copies of presentations/posters have to be submitted by **15 May 2013**.

The IEM Secretariat reserves the right to exclude papers that do not comply with the IAEA’s quality standards and/or do not apply to one of the topics listed in Section D.

F. Participation

The IEM is targeted at international experts from IAEA Member States with experience in the operation of nuclear power plants, as well as from IAEA Member States that are in the advanced stages of developing new nuclear power programmes. All experts designated by Member States to participate in the meeting are requested to **register online in advance** through the IEM web page. In addition they are required to send a completed Participation Form (Form A) and, if applicable, the Form for Submission of a Paper (Form B) and the Grant Application Form (Form C) to the competent national authority (e.g. the Ministry of Foreign Affairs or National Atomic Energy Authority) or to one of the organizations invited to participate, for subsequent transmission to the IAEA (official.mail@iaea.org).

A participant will be accepted only if the Participation Form is transmitted through the competent national authority 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 IEM approximately two months before the beginning of the meeting. This information will also be posted on the IEM web page.

G. Expenditures

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of designated participants in the meeting. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of selected participants. Such assistance may be offered, upon specific request, to one participant per Member State provided that in the IAEA's view the participant on whose behalf assistance is requested will make an important contribution to the meeting. If governments wish to apply for a grant on behalf of one of their experts, they should address specific requests to the IAEA to this effect. Governments should ensure that applications for grants are submitted by **15 February 2013** and that they are accompanied by a duly completed and signed Grant Application Form (Form C).

Approved grants will be issued in the form of a lump sum payment that usually covers **only part of the cost of attendance**.

H. Working Language

The working language of the IEM will be English. All communications, synopses and full papers must be sent to the IAEA in English.

I. Visas

Designated participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

J. IEM Secretariat

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K. IEM web page

Please visit the IEM web page regularly for new information regarding the meeting:

<http://www-pub.iaea.org/iaeametings/45441/IEM5>