



# International Conference on Effective Nuclear Regulatory Systems: Transforming Experience into Regulatory Improvements

**Ottawa, Canada**

**8–12 April 2013**

*Organized by the  
International Atomic Energy Agency  
(Organized in connection with the implementation of the  
IAEA Action Plan on Nuclear Safety)*

*Hosted by the  
Government of Canada*

*through the  
Canadian Nuclear Safety Commission*

## **Announcement and Call for Papers**

### **A. Background**

The International Conference on Effective Nuclear Regulatory Systems in Ottawa in 2013 will be the continuation of the tradition established by the two preceding conferences on this subject, which were held, respectively, in Cape Town in 2009 and in Moscow in 2006. Like these earlier conferences, the forthcoming one will play a vital part in the global efforts undertaken by senior nuclear safety and security regulators to review issues that are important to the global nuclear regulatory community, and will focus, in particular, on the key role of regulators in ensuring safety and security. The conference in Ottawa is being organized by the

International Atomic Energy Agency (IAEA) and will be hosted by the Government of Canada through the Canadian Nuclear Safety Commission (CNSC).

Since the last conference in 2009 the most challenging nuclear event has been the nuclear accident at TEPCO's Fukushima Daiichi nuclear power plant (NPP) in March 2011. In response to this accident, the IAEA's Director General convened a Ministerial Conference on Nuclear Safety in Vienna, Austria, in June 2011. A Ministerial Declaration was adopted on that occasion which, inter alia, requested the Director General to prepare a draft Action Plan 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.

On 22 September 2011, the IAEA General Conference unanimously endorsed the approval of the draft IAEA Action Plan on Nuclear Safety by the Board of Governors. The Action Plan sets out a comprehensive programme of work, in 12 major areas, to strengthen nuclear safety worldwide.

This conference is being organized in connection with the implementation of the IAEA Action Plan on Nuclear Safety. It will be the first major event specifically devoted to nuclear regulatory systems following the Fukushima Daiichi nuclear accident. The implications of the accident for all nuclear regulators — not only those from countries with operating NPPs — will be addressed.

Hence, the progress achieved so far in the implementation of the IAEA Action Plan on Nuclear Safety will play an important role in the conference. The conference will also take into account the results of other major related conferences and meetings, such as the Fukushima Ministerial Conference on Nuclear Safety that will be held in the Fukushima Prefecture, Japan, from 15 to 17 December 2012.

It is strongly believed that the Ottawa conference should send out messages to the nuclear community about:

- ways in which nuclear regulators can contribute to regulatory systems aimed at preventing the occurrence and minimizing the consequences of nuclear accidents;
- how regulatory bodies should be organized and cooperate with national governments in order to achieve the highest possible levels of nuclear safety and security;
- ways to strengthen international cooperation between nuclear regulators and relevant international organizations;
- ways in which international cooperation can improve emergency preparedness and response in countries with developed nuclear programmes and in countries embarking on the road to the peaceful use of nuclear power.

The conference is intended to be of interest to a broad range of experts in the area of nuclear safety and security regulation. Bringing together the world's senior regulators responsible for the areas of nuclear and radiation safety and nuclear security will be a vital step in strengthening regulatory systems worldwide.

## B. Objectives and Expected Outcomes

The purpose of this conference is to review and assess ways of further improving the effectiveness of regulatory systems for facilities and activities taking into account lessons learned from the Fukushima Daiichi nuclear accident, as well as to propose specific actions in order to:

- enhance regulatory measures aimed at preventing the occurrence and minimizing the consequences of nuclear accidents;
- address lessons learned and challenges in the management of radioactive waste and spent fuel, with a focus on long term management and disposal;
- enhance transparency and communication among regulators and relevant stakeholders;
- strengthen international cooperation on emergency management;
- support newcomer countries in establishing and strengthening the regulatory framework for their emerging nuclear power programmes;
- enhance safety and security culture in the light of human and organizational factors.

## C. Themes and Topics

The following topical issues have been identified as subjects for the conference sessions.

### **Topical Issue No. 1: Regulatory Lessons Learned and Actions Taken**

This session will address the lessons learned and actions taken by regulators since the 2009 conference in Cape Town, and, in particular, the lessons learned from the Fukushima Daiichi nuclear accident.

Topics for discussion include:

- Results and updates arising from the IAEA International Expert Meeting (IEM) on Reactor and Spent Fuel Safety in the Light of the Accident at the Fukushima Daiichi Nuclear Power Plant that was held in Vienna, Austria, in March 2012. The objectives of that IEM were to
  - identify and analyse reactor and spent nuclear fuel safety and performance issues;
  - consider the design, engineering and analysis of current and new systems for accident prevention and mitigation;
  - exchange information on national assessments of reactor and spent nuclear fuel safety and performance;
  - identify potential priority areas for research and development, technology development and management.

- Regulatory response and changes to regulatory frameworks and/or systems arising from lessons learned in relation to regulatory independence, capacity building, organizational changes, ‘stress tests’ and peer reviews such as the IAEA’s Integrated Regulatory Review Service (IRRS).

## **Topical Issue No. 2: Waste Management and Spent Fuel Safety**

This session will address lessons learned and challenges in the management of radioactive waste and spent fuel, with a focus on long term management and disposal. The experience gained by Member States and international organizations with regard to ways of ensuring a high level of safety worldwide in the management of radioactive waste and spent fuel will be of special interest.

Topics for discussion include:

- Licensing of storage and disposal facilities;
  - Recent experiences and lessons learned in licensing facilities;
  - Challenges in licensing disposal facilities for high level waste and spent fuel;
- Early regulatory involvement in the process of siting a disposal facility;
  - Communication with stakeholders and the public;
  - Interaction with the operator;
- International cooperation and work towards harmonization;
  - International standards and harmonization of approaches towards regulating and reviewing safety cases;
  - Sharing experience and building competence, including the role of external technical support.

## **Topical Issue No. 3: Emergency Management**

This session will address issues related to the role of regulators in nuclear emergencies. Focus should be given to the lessons learned and improvements made in emergency preparedness and response following a major accident. The consistency of approaches, as well as the efficiency of the chain of command and decision making among neighbouring countries in specific regions should be subject to continuous improvements.

Topics for discussion include:

- Challenges in communication, coordination and consistency in the international response to emergencies with regard to information availability and exchange, as well as decision making;
- National challenges in the regulatory role and coordination;

- Remediation after accidents — establishment of criteria and their implementation.

#### **Topical Issue No. 4: Emerging Programmes**

This session will discuss the impact of the Fukushima Daiichi nuclear accident on the progress of nuclear programmes in countries embarking on the use of nuclear power for the first time. Contributions will be sought from participants representing countries with nuclear programmes other than NPPs, such as research reactors, mining operations and other nuclear operations.

The session will further report on the efforts made so far in strengthening international cooperation among regulators in the aftermath of the Fukushima Daiichi nuclear accident and on the ways in which international regulatory cooperation forums (such as the IAEA's Regulatory Cooperation Forum (RCF)) are contributing to this process.

The requirements of early integration of safety, security and safeguards will be considered during this session, a central point of which is the interface between safety and security and how to achieve synergies between the two.

Topics for discussion include:

- Impact of the Fukushima Daiichi nuclear accident on regulatory programmes in newcomer countries;
- International regulatory cooperation such as the RCF;
- Other nuclear programmes apart from NPPs, e.g. research reactors and other nuclear applications, naturally occurring radioactive material (NORM) related activities, mining operations;
- Early integration of nuclear safety, security and safeguards.

#### **Topical Issue No. 5: Human and Organizational Factors, Safety and Security Culture**

This session will be devoted to the safety and security culture within the regulatory body. It will also look at the regulatory oversight of programmes established to strengthen human performance and to improve the internal organization at nuclear facilities in order to achieve the highest possible level of safety and security.

Topics for discussion include:

- Regulatory oversight of human performance programmes;
- Safety and security culture within the regulatory body;
- Regulatory oversight of the licensee.

## D. Target Audience

The conference is directed at a broad range of experts in the area of nuclear safety and security regulation, bringing together the world's senior regulators responsible for the areas of nuclear and radiation safety and nuclear security.

## E. Programme Structure

The conference will consist of an opening plenary, five technical sessions with panel discussions and a closing session.

The **opening plenary** will consist of opening addresses followed by a keynote panel discussion to highlight and prioritize urgent policy and technical challenges in nuclear safety and security that can be addressed primarily through international cooperation between governments, regulatory bodies and international organizations.

The **five topical sessions** will address the topical issues listed in Section C. After the discussions in the technical sessions, conclusions and recommendations will be drawn up.

Each session will consist of:

- Opening of the session by the Chairperson;
- Invited papers to cover the topical issues specified;
- A panel discussion.

**Panel discussions** in each of the five technical sessions will address the challenges resulting from the keynote panel discussion, as well as from the papers presented at the topical sessions, and will focus on actions needed to enhance the global nuclear safety and security framework. Some contributed papers (see Section F) may be selected, if considered to significantly contribute to the topics of the sessions, to become part of the panel discussions. This discussion will bring into focus the essence of the various sessions and will be the cornerstone of the conference's activities; it will also provide strong input for the conference's closing session. Members of the panel in these discussions will include senior executives from regulatory bodies and e.g. from technical and scientific support organizations.

In the **closing session**, summaries of the sessions according to the topical issues listed in Section C will be provided. The President of the conference will present the summary and conclusions of the conference, including visions, strategies and actions for the future, as well as issues for consideration by governments, regulatory bodies and international organizations.

## F. Contributed Papers

Concise papers on issues falling within the topics of the conference (see Section C above) may be submitted as contributions to the conference. These will be made available on the conference CD. Contributors are expected to present these papers in **poster sessions**. The **contributed papers** should not exceed **seven pages in length** and must be submitted in English. Each contributed paper must be preceded by an extended synopsis not exceeding 800 words. Authors should state to which of the above topical issues their contribution relates. The extended synopsis together with a completed Form for Submission of a Paper (Form B) is due for submission by **17 September 2012**.

Authors must use the IAEA's Proceedings Paper Template in Word (user instructions will be available on the conference web page (see Section P). Authors will be informed by **22 October 2012** whether their papers have been accepted for inclusion in the contributed papers and for presentation as a poster.

The extended synopsis and later the contributed papers should be submitted via email to:

[RegConf2013@iaea.org](mailto:RegConf2013@iaea.org)

or sent on CD-ROM to the Scientific Secretariat (see Section O). The CD-ROM should be labelled with the author's name, the title of the paper, the proposed session topic and the software application used (the use of Microsoft Word is encouraged). To permit proper review of papers, the electronic version of the contributed paper must be received by the Scientific Secretariat not later than **7 January 2013**.

In addition to the electronic submission, a copy of the contributed paper(s) must also be submitted through one of the competent official authorities. The paper should be sent together with the Participation Form (Form A) to reach the IAEA not later than **7 January 2013**. If applicable, the Grant Application Form (Form C) should be submitted by **17 September 2012** to the secretariat.

Only papers that have been received by the above deadline(s) and through the appropriate official governmental authorities will be considered and made available on the conference CD.

Final acceptance will occur after a peer review process. Furthermore, the Secretariat reserves the right to exclude papers that do not comply with its quality standards and/or do not apply to one of the topics in Section C above. Papers that are not sent through the official channels and papers arriving after the deadline cannot be considered.

## G. Participation

All persons wishing to participate in the conference are requested to register online in advance. In addition, they must send a completed Participation Form (Form A), the Form for Submission of a Paper (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 conference begins. This information will also be made available on the conference web page (see Section P).

## H. Expenditures

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the conference. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Such assistance may be offered, upon specific request, provided that, in the IAEA's view, the participant on whose behalf it is requested will make an important contribution to the conference. In general, not more than one grant will be awarded to one country.

If governments wish to apply for a grant on behalf of one of their participants, they should address specific requests to the IAEA to this effect. Governments should ensure that applications for grants are:

1. Submitted by **17 September 2012**;
2. Accompanied by a duly completed and signed Grant Application Form (Form C);
3. Accompanied by a completed Participation Form (Form A).

Applications that do not comply with the above conditions cannot be considered.

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

## I. Distribution of Documents and Proceedings

A preliminary programme of the conference will be sent to all officially designated participants well in advance of the conference and will also be made available on the conference web page (see Section P).

The proceedings of the conference will be published by the IAEA as soon as possible after the conference. They will contain the welcome addresses, overview presentations, Rapporteurs' reports, invited papers, session summaries, the conclusions presented by the President of the conference on the last day and the records of the discussions. The contributed papers and posters will be included on a CD-ROM. The proceedings can be ordered, at a special discounted price, during the conference.



## **J. Working Language**

The working language of the conference will be English.

## **K. Accommodation**

Detailed information on accommodation and other administrative details will be made available on the conference web page as soon as possible.

## **L. Visas**

Designated participants who require a visa to enter Canada should submit the necessary application to the nearest diplomatic or consular representative of Canada at least eight weeks before they travel to Canada. Designated participants will be required to submit a letter of invitation in support of their visa application.

For more information on visas:

Do you need a Temporary Resident Visa (TRV) to visit Canada? See the relevant list of countries:

<http://www.cic.gc.ca/english/visit/visas.asp>

Where to send your application for a TRV?

<http://www.cic.gc.ca/english/information/offices/apply-where.asp>

Video tutorial on completing the TRV application form (IMM 5257)

<http://www.cic.gc.ca/english/department/media/multimedia/video/imm5257/imm5257.asp>

Visa offices outside of Canada:

<http://www.cic.gc.ca/english/information/offices/missions.asp>

Visa application processing times:

<http://www.cic.gc.ca/english/information/times/temp/visitors.asp>

## **M. Channels of Communication**

The Participation Form (Form A) and, as applicable, the Form for Submission of a Paper (Form B), and the Grant Application Form (Form C), should be sent to the competent national authority (Ministry of Foreign Affairs or National Atomic Energy Authority) for official transmission to the IAEA.

Subsequent communications concerning technical matters should be sent to the Scientific Secretariat, and communications on administrative/logistical matters should be sent to the Conference Secretariat (see Section O).

## **N. Key Deadlines**

Submission of Form B and of extended synopsis (max 800 words):	<b>17 September 2012</b>
Submission of Form C:	<b>17 September 2012</b>
Notification of acceptance of paper:	<b>22 October 2012</b>
Submission of full paper (only upon request by the IAEA):	<b>7 January 2013</b>
Submission of Participation Form (Form A)	<b>7 January 2013</b>

## **O. IAEA Secretariat for the Conference**

### **Scientific Secretariat:**

#### **Mr Paul Woodhouse**

Section Head

Safety and Security Coordination Section

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**Email address for submission of extended synopsis and contributed paper:**

[RegConf2013@iaea.org](mailto:RegConf2013@iaea.org)

**Administration and organization:**

Martina Neuhold  
Conference Services Section  
Division of Conference and Document Services  
IAEA-CN-198  
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Vienna International Centre, PO Box 100  
1400 VIENNA, AUSTRIA  
Tel.: +43 1 2600 21314  
Email: [M.Neuhold@iaea.org](mailto:M.Neuhold@iaea.org)

Subsequent correspondence on scientific matters should be sent to the Scientific Secretariat, and correspondence on administrative matters to the Conference Services Section.

**P. Conference Web Page**

The IAEA web page for the conference is as follows:

<http://www-pub.iaea.org/iaeameetings/41986/International-Conference-on-Effective-Nuclear-Regulatory-Systems>

It will be updated regularly with new information, and participants are encouraged to check it on a regular basis.