



Technical Meeting on Risk Management in Nuclear Power Plant Construction

Vienna, Austria

6–8 September 2016

Ref. No.: 621-I2-TM-52256

Information Sheet

A. Background Information

Nuclear construction projects can be extremely complex and fraught with uncertainty. This risk and uncertainty can potentially have damaging consequences for such projects, and can often prevent them from even starting. The International Atomic Energy Agency (IAEA) has in recent years developed a review service for Member States [1] to help identify readiness for the construction phase, and has produced guides in the IAEA Nuclear Energy Series related to construction technology [2] and financing [3,4] that in some part address construction related risks. IAEA safety standards emphasize the need to analyse each construction site for “site specific risks and for construction method risks” [5].

Risk analysis and management are increasingly a major project management activity for construction projects in both the nuclear and non-nuclear sectors. Risk management attempts to deal effectively with uncertainty and unexpected events and to achieve project success.

The Project Management Institute defines project risk management as including [6]:

- Risk management planning;
- Risk identification;
- Qualitative risk analysis;

- Quantitative risk analysis;
- Risk response planning;
- Risk monitoring and control.

Each of these areas has applications in nuclear projects, however how widespread the use of related tools is in the nuclear industry is currently unclear.

B. Objectives

The purpose of the meeting is to explore and provide practical guidance on various aspects of project risk management for nuclear projects, and to share experiences between Member States regarding good practices in this area.

It will highlight the importance of having appropriate risk management policies, especially considering the various organizational arrangements that exist in different construction and operating organizations and countries. Specifically, the meeting will aim to:

- Share experiences from Member States related to project risk management for nuclear construction and refurbishment projects;
- Share experiences from Member States and the IAEA Secretariat related to the development and use of different tools and techniques for nuclear project risk management; and
- Explore Member States' future needs with respect to nuclear construction project risk management.

C. Topics

The meeting will include presentations by participants from Member States, international organizations, and the IAEA Secretariat. The following topics are planned to be addressed:

- Common risk areas for nuclear construction projects
- Country specific practices for construction risk management
- Practices for upfront and ongoing risk identification
- Project front-end-planning processes
- Company, regulatory, and governmental risk oversight processes
- Methods available to mitigate construction risk
- Tools, software, and techniques used for construction risk in different environments
- Good practices recommended for others

D. Participation

Participation is solicited from Member State representatives who are involved in the construction or refurbishment of nuclear facilities. These might include individuals involved with managing, overseeing, regulating, designing, financing, insuring, managing risk for, or otherwise implementing new build construction programmes or refurbishment projects. Suppliers of tools applicable to nuclear construction risk management, and members of academia that focus on construction project risk management, are also encouraged to participate.

One month prior to the meeting, participants will be expected to provide the IAEA Secretariat with a response to a survey to be sent to attendees regarding construction risk management practices for nuclear facilities within their nuclear power plant (NPP)/country/organization.

Participants at the meeting will be expected to:

- Give a summary presentation regarding current processes, standards, and experiences (including significant events) related to nuclear facility construction or related to large nuclear refurbishment projects within their country or organization;
- Actively participate in the dialogue at the meeting; and
- Provide any other input useful to the IAEA's activities on this topic.

E. Application Procedure

Designations should be submitted using the attached Participation Form (Form A). Completed forms should be endorsed by the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) and returned through the established official channels. They must be received by the IAEA not later than **1 July 2016**. Designations received after that date or applications sent directly by individuals or by private institutions cannot be considered. Designating Governments will be informed in due course of 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.

The IAEA reserves the right to limit participation due to limitations imposed by the available facilities. The meeting is open to representatives of countries with operating NPPs as well as newcomer countries.

For those participants requesting financial assistance, the attached Grant Application Form (Form C) should additionally be submitted at the same time as the Participation Form.

F. Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria as soon as possible.

G. Equipment

Workstations and projecting tools will be available for presentations. Laptops/notebooks brought by the participants may be connected to the projecting tools (liquid crystal display data projector) in the meeting rooms.

H. Papers

No formal papers will be required for this meeting; however, the completion of the prerequisite survey (see Section D above) is expected, and presentation slides will be posted to the IAEA website.

I. Working Language

The meeting will be conducted in English.

J. Administrative and Financial Arrangements

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

The costs of the meeting are borne by the IAEA; 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 meeting. 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 to normally one participant per country provided that, in the IAEA's view, the participant on whose behalf assistance is requested will make an important contribution to the meeting. **The application for financial support should be made at the time of designating the participant.**

The organizers of the meeting 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 travelling to and from or attending the meeting, and it is clearly understood that each Government, in designating participants, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

K. Local Arrangements

The meeting will be held at the IAEA's Headquarters in Vienna, Austria, specifically in Room M6, Building M, at the Vienna International Centre (VIC) and will start at 9.00 a.m. on Tuesday, 6 September 2016, and end at 4.00 p.m. on Thursday, 8 September 2016.

The meeting agenda and local details, together with information on local arrangements, will be sent to participants once the completed Participation Forms have been received.

L. IAEA Secretariat

The IAEA Scientific Secretary for the meeting is:

Mr John Moore

Division of Nuclear Power
Department of Nuclear Energy
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 22864

Fax: +43 1 2600 29598

Email: J.H.Moore@iaea.org

The IAEA Administrative Secretary for the meeting is:

Mr Roy George

Division of Nuclear Power
Department of Nuclear Energy
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 22799

Fax: +43 1 2600 29598

Email: R.George@iaea.org

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the meeting to the Administrative Secretary.

M. References

- [1] INTERNATIONAL ATOMIC ENERGY AGENCY, CORR Guidelines: Preparing and Conducting Review Missions of Construction Project Readiness for Nuclear Power Plants, IAEA Services Series No. 24, IAEA Services Series IAEA-SVS-24, IAEA, Vienna (2013).
- [2] INTERNATIONAL ATOMIC ENERGY AGENCY, Construction Technologies for Nuclear Power Plants, IAEA Nuclear Energy Series No. NP-T-2.5, IAEA, Vienna (2011).
- [3] INTERNATIONAL ATOMIC ENERGY AGENCY, Financing of New Nuclear Power Plants, IAEA Nuclear Energy Series No. NG-T-4.2, IAEA, Vienna (2008).
- [4] INTERNATIONAL ATOMIC ENERGY AGENCY, Issues to Improve the Prospects of Financing Nuclear Power Plants, IAEA Nuclear Energy Series No. NG-T-4.1, IAEA, Vienna (2009).
- [5] INTERNATIONAL ATOMIC ENERGY AGENCY, Construction for Nuclear Installations, IAEA Safety Standards Series No. SSG-38, IAEA, Vienna (2015).
- [6] PROJECT MANAGEMENT INSTITUTE, Guide to the Project Management Body of Knowledge (PMBOK® Guide), 5th ed., Project Management Institute, Newtown Square, PA (2013).

Participation Form

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To be completed by the participant and sent to the competent official authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA), Vienna International Centre, PO Box 100, 1400 Vienna, Austria, either electronically by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed).

At the same time as you send the original to your national authority; please send a copy of this form directly to the IAEA Scientific Secretary, Mr John Moore, at: J.H.Moore@iaea.org (with cc: R.George@iaea.org), or by fax: +43 2600 29598 (no hard copies needed).

Deadline for receipt by IAEA through official channels: 1 July 2016

Surname:		Given names:	Mr/Ms:
Title and position:		Nationality:	
Organization/Company:			
Full mailing address (including country):			
Phone (including country code):		Fax (including country code):	
Email 1:		Email 2:	
Designating Government or organization:			
I intend to give a presentation: No <input type="checkbox"/> Yes <input type="checkbox"/> with the following title:			
Date:			

Grant Application Form

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To be completed by the applicant and sent to the competent official authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA), Vienna International Centre, PO Box 100, 1400 Vienna, Austria, either electronically by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Kindly send also a copy to the Scientific Secretary of the meeting, Mr John Moore, at: J.H.Moore@iaea.org (with cc: R.George@iaea.org).

To be completed only by participants from developing countries on whose behalf a grant is requested.

Deadline for receipt by IAEA through official channels: 1 July 2016

Family name:	Given name(s):	Mr/Ms:
Mailing address:	Tel.:	
	Fax:	
	Email:	
Date of birth (yy/mm/dd):	Nationality:	
	Nearest Airport:	

1. Education (post-secondary):

Name and place of institution	Field of study	Diploma or Degree	Years attended from	to

2. Recent employment record (Starting with your present post):

Name and place of employer/organization	Title of your position	Type of work	Years worked from	to

3. Description of work performed over the last three years:

4. Institute's/Member State's programme in field of meeting:

Date: _____ **Signature of applicant:** _____

Date: _____ **Name, signature and stamp of responsible Government official:** _____