IAEA
International Atomic Energy Agency

Technical Meeting on Managing Nuclear Safety Knowledge — Approaches and National Experiences

Hosted by the
International Atomic Energy Agency

Vienna, Austria

17–22 July 2017

Ref. No.: J5-TM-55170

Prospectus

A. Introduction

Knowledge management has now become an established discipline across many economic sectors.

Nuclear knowledge management, in particular, is established and used in many nuclear organizations and Member States, and the International Atomic Energy Agency (IAEA) has issued several publications that provide guidance and technical details. It has been identified as one of the key factors that can contribute to a safe, secure and sustainable nuclear power programme in Member States, and its importance has been highlighted in several General Conference resolutions, most recently in 2016 in resolution GC(60)/RES/12.C on "Nuclear Knowledge Management".

For nuclear safety in particular, nuclear knowledge management is of special and high importance, as reflected, inter alia, in the IAEA safety standards, in the IAEA Action Plan on Nuclear Safety, in several IAEA General Conference resolutions — most recently in 2016 in resolution GC(60)/RES/9.10 on "Education, Training and Knowledge Management" — and in the recommendations of international conferences, including the International Conference on Human Resource Development for Nuclear Power Programmes: Building and Sustaining Capacity (2014) and the Third International Conference on Nuclear Knowledge Management: Challenges and Approaches (2016).

Nuclear safety knowledge management, however, also poses specific challenges, in that

- securing an adequate knowledge base is a must or legally mandatory for both operators and regulators;
- manifold types of knowledge need to be dealt with (e.g. legal, technical, operational knowledge);
- relevant knowledge might have manifold owners (e.g. regulators, technical support organizations, vendors and operators);
- a lack of nuclear safety knowledge can have significant implications (i.e. much beyond an undesirable lack of efficient use of knowledge as a commercial resource);
- long timescales need to be considered (e.g. the decision basis for regulatory decisions needs to be kept available); and
- the dual role of regulators, who need to have corporate nuclear safety knowledge themselves but also be able to make knowledgeable judgements about the knowledge that the operators have.

The IAEA is issuing separate guidance on how to address nuclear safety knowledge management at the organizational level, in particular by regulatory bodies and technical support organizations, e.g. in a Safety Report entitled *Knowledge Management for Safety Regulators*, which is under development.

Addressing nuclear safety knowledge management at the national level, i.e. beyond organizational boundaries, has not yet been covered with the same level of detail.

B. Objectives

The objectives of the meeting are to:

- present and share, through papers and presentations given by representatives of Member States, approaches and national experiences related to the management of nuclear safety knowledge; and

- review a draft IAEA report provisionally entitled *Managing Nuclear Safety Knowledge — Approaches and National Experiences* (to be prepared and circulated by the IAEA Secretariat in advance) and make recommendations with regard to
    - suitable national papers to be included in the report as examples of good practices; and
    - Finalization of the report itself.

C. Papers

Papers on topics covered by the programme of the meeting (see Section B above) should be submitted through the appropriate governmental channels. The submission of a paper implies that the author intends to participate in the meeting if it is accepted. Papers should not exceed 3000 words and should contain an abstract of about 400 words. Papers should be prepared according to the guidelines provided in Attachment B.

A completed Participation Form (see Attachment A), with an indication of the intention to present a paper must be sent to the IAEA through a competent official authority by **15 May 2017**, together with two copies of an abstract (400 words). The abstract will be used to select papers for the meeting and to establish the final programme (see Sample A in Attachment B).

D. Target Audience

The meeting is open to participants from Member States who are representatives of regulatory bodies, technical support organizations, competent authorities, operators, industry, universities, etc.

Participants should be familiar with their respective countries' nuclear and radiation industry, as well as with strategies for the introduction/expansion of nuclear technologies.

E. Working Language

The working language of the meeting will be English.

F. Structure

The meeting will include presentations and discussions, 'face to face' exchange of experience, panel sessions and work in small groups. The meeting will include presentations by participants from Member States and by staff members from the IAEA Secretariat.

The following topics are planned to be addressed:

- National approaches, coordination mechanisms and institutions that manage nuclear safety knowledge at the national level; and

- Case studies and good practices of managing nuclear safety knowledge at the national level.

For the purpose of this meeting,

- **"Nuclear safety"** includes the safety of nuclear installations, radiation safety, the safety of radioactive waste management and safety in the transport of radioactive material for the protection of people and the environment against radiation risks and for the safety of facilities and activities that give rise to radiation risks, under normal circumstances or as a consequence of incidents. In line with this understanding, the subject area of the meeting applies to all organizations that are part of the nuclear safety framework and manage knowledge related to safety, including nuclear, radiation, waste and transport safety, including operators of facilities and activities, nuclear safety regulators, technical and scientific support organizations, research organizations and universities, intergovernmental organizations, suppliers of equipment and services and other interested parties that participate in securing nuclear safety.
- **"Nuclear safety knowledge management"** can also include aspects such as national nuclear safety capacity building, national human resource development, national education and training activities and knowledge transfer (e.g. between Member States) and national, regional and global nuclear safety knowledge networks.

G. Administrative and Financial Arrangements

Nominating 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 to be borne by the IAEA; no registration fee is charged to participants. Travel and subsistence expenses of participants will not be borne by the IAEA. Limited funds are, however, available to help cover the cost of attendance of selected experts from Member States. Such assistance can be offered, upon specific request, to one participant per country provided that, in the IAEA's view, the participant will make an important contribution to the meeting. The application for financial support should be made at the time of nominating 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 nominating participants, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

H. Application Procedure

Nominations should be submitted using the attached Participation Form. 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 **15 May 2017**. Nominations received after that date or applications sent directly by individuals or by private institutions cannot be considered. Nominating 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.

For Member States receiving technical cooperation assistance, applications for financial support should be made at the time of nominating the participant.

I. Venue

The meeting will be held at the Vienna International Centre, M Building, Room: MOE Press Room.

J. Organization

IAEA Scientific Secretaries:

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K. GNSSN Website

Please visit the GNSSN website regularly for new information regarding this meeting:

http://gnssn.iaea.org/

INTERNATIONAL ATOMIC ENERGY AGENCY

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To be sent to the competent official authority (Ministry of Foreign Affairs or National Atomic Energy Authority) for transmission to the International Atomic Energy Agency, Vienna International Centre, PO Box 100, 1400 Vienna, Austria (Fax: +43 1 26007 26109).

ATTACHMENT A: PARTICIPATION FORM

FAMILY NAME:	ALL INITIALS OF GIVEN NAMES:	MR. MS.
INSTITUTION:	FULL ADDRESS: TEL.: FAX: EMAIL:	
NATIONALITY:	NOMINATING GOVERNMENT OR ORGANIZATION:	
MAILING ADDRESS (IF DIFFERENT FROM ADDRESS OF INSTITUTION):		
DO YOU PLAN TO SUBMIT A PAPER: ☐ YES ☐ NO		
TITLE OF PAPER:		

ATTACHMENT B: INSTRUCTIONS FOR THE PREPARATION OF PAPERS

Length

Papers should not exceed 3000 words.

Copyright

Authors are responsible for ensuring that nothing in their papers infringes any existing copyright. If previously copyrighted material is included, authors must provide evidence that the copyright holder has given permission for its use.

Manuscript

The original manuscript should be printed on one side of the paper only. The desired **layout** is shown in *Sample A* below. An electronic copy should be supplied with the original.

Margins: Top 2 cm. Bottom 2.7, right and left 2.5 cm.

Font: Times New Roman 12 or 11.

The paper must begin with an **abstract**. The abstract should be typed as one paragraph not exceeding 400 words and should not contain references or footnotes.

References and bibliography for background reading should be numbered in Arabic numerals in square brackets, and listed at the end of the paper. Please refer to the following examples:

[1] INTERNATIONAL ATOMIC ENERGY AGENCY, Framework for a Quality Assurance Programme for Probabilistic Safety Assessment, IAEA-TECDOC-1101, Vienna (1999).

[2] KAFKA, P., "Risk Monitoring — International Status and Current Developments", (Paper presented at the IAEA Technical Committee Meeting on PSA Applications and Tools to Improve NPP Safety, Madrid, 1998).

[3] UNITED STATES NUCLEAR REGULATORY COMMISSION, Emergency Diesel Generator: Maintenance and Failure Unavailability, and their impacts, NUREG/CR- 5994, Washington DC (1994).

[4] VAN DER BORST, M., VERSTEEG, M. F., "PSA Supported Severe Accident Management Strategies for the Borssele NPP", (Proceedings of the PSA'96 Conference, Park City, 1996).

Figures and tables should be clear and reproducible. All figures and tables should be placed as near as possible to the place where they are first mentioned, but do not wrap text around them.

Sample A

TITLE OF THE PAPER IN BOLD CAPITAL LETTERS

N. SURNAME 1, N. SURNAME 2 Organization 1

City, Country

N. SURNAME 3
Organization 2
City, Country

Abstract

This abstract should present a brief outline of the contents of the paper. It should not exceed four hundred (400) words.

1. INTRODUCTION

It is suggested that a brief introduction of the topic(s) discussed further in the following Sections of this paper be included.

2. SECTION TWO

2.1 Section two point one

2.1.1. Section two point one point one

2.1.1.1. Section two point one point one point one