A. Background Information

Nuclear installations and related organizations can subject their workers and the public to a number of industrial health and safety risks. Nuclear facilities can contain hazardous processes and materials (hot steam, harsh chemicals, electricity, pressurized fluids, mechanical hazards and the like), and workers can be exposed to a number of these hazards and others related to their normal duties (including slips, trips and falls, driving accidents, etc.). Industrial safety accidents, along with their direct impacts on the individuals involved, can negatively impact the image of nuclear power safety and its general acceptance by the public.

There have been numerous incidents in recent years related to industrial safety issues in the nuclear industry. In March 2013, during movement of the main generator stator (500 ton) at Unit 1 of the Arkansas nuclear power plant (NPP), the stator was dropped from the turbine building deck to ground level. As a consequence of the drop, eight individuals on the turbine building deck were injured and one fatally injured. In January 2014 two workers drowned when discharge water levels rose during cleaning at Unit 5 of the Hanbit NPP in the Republic of Korea. The Hanbit 5 reactor was shut down by local authorities until industrial safety practices were improved.

The International Atomic Energy Agency (IAEA) has acknowledged the importance of industrial safety in the operation of NPPs. It is a formal part of Operational Safety Review Team (OSART) inspections (see Section 3.1.5 of the OSART guidelines [5]). However, supplementary guidance for such inspections related
to industrial safety has not been issued or updated in over twenty years [4]. Additionally, there is no current IAEA guidance document or publication on industrial safety covering the construction phase of NPP projects, except that found in the recently published CORR Guidelines: Preparing and Conducting Review Missions of Construction Project Readiness for Nuclear Power Plants (Services Series No. 24) [6].

There is thus a need to give practical guidance based on experiences and latest insights as to how to manage industrial health and safety issues across multiple processes and organizations within the nuclear industry, during facility construction, operation, and decommissioning.

B. Objectives

The purpose of the meeting is to explore and provide practical guidance on various aspects of industrial safety management at nuclear facilities that are under construction, during operation, or undergoing decommissioning, by presenting actual examples from different countries. It will highlight the importance of having an appropriate industrial safety policy, 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 industrial safety;
- Share experiences from Member States and the IAEA related to the development and use of different tools and techniques for industrial safety management and training;
- Obtain feedback from Member States on a draft IAEA Nuclear Energy Series publication providing guidelines on industrial safety management for NPPs, and on industrial safety practices at their NPP site(s); and
- Explore Member States’ future needs with respect to industrial safety management.

C. Topics

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

- Industrial safety policy and practice development
- Country specific rules, regulations, codes and standards
- Industrial safety and nuclear safety culture
- Leadership and first line supervision
- Industrial safety metrics and performance
- Implementation challenges for industrial safety practices at a first NPP
• Tools and techniques used for industrial safety training in different environments:
  - New techniques for (old) experienced instructors
  - E-learning
  - Classroom
  - Pedagogic methods
  - Other

• Good practices recommended for others

D. Target Audience and Conditions of Participation

Participation is solicited from Member State representatives who are involved in industrial health and safety or hygiene functions associated with nuclear facilities that are in operation, under construction, or undergoing decommissioning. These might include individuals involved with managing or overseeing safety programmes related to such facilities. Individuals from construction or plant operation safety associations in Member States are also encouraged to attend.

One month prior to the meeting, participants will be expected to provide the IAEA Secretariat with:

• Written comments on the draft IAEA Nuclear Energy Series publication on industrial safety guidelines. Comments should include any additions or corrections to the draft text. Of special interest are country-specific contributions regarding applicable operating or construction experience, applicable regulations, codes and standards, as well as proposals for the draft Appendix section covering country-specific industrial safety experience and issues; and

• A response to a survey to be sent to attendees regarding industrial safety practices for NPPs within their country.

Participants at the meeting will be expected to:

• Give a summary presentation regarding current processes, standards, and industrial safety experience (including significant events) related to nuclear facilities or large capital projects within their country;

• Actively participate in the dialogue at the meeting; and

• Provide any other input useful to the IAEA’s activities on this topic.

Participants should complete the attached Participation Form (Form A) as soon as possible and send it to the competent national authority (Ministry of Foreign Affairs or National Atomic Energy Authority) for transmission to the IAEA Secretariat via the established official channels to arrive no later than 15 September 2015. The designation of a participant will be accepted only if forwarded by the Government of an IAEA Member State or by an organization invited to participate.

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.
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 15 September 2015. Designations received after that date or applications sent directly by individuals or by private institutions can not 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.

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 China should submit the necessary application to the nearest diplomatic or consular representative of China 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 submissions regarding the survey and comments on the draft text of the new industrial safety guidelines publication (see Section D above) is expected.

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 in Fuzhou (exact location will be mentioned in the direct invitation letter), Fujian Province and will start at 9.00 a.m. on Monday, 16 November 2015, and end at 4.00 p.m. on Wednesday, 18 November 2015.

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:

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The IAEA Administrative Secretary for the meeting is:

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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


