Summary Report

ANSN - Regional workshop on nuclear safety culture self-assessment based on the new methodology

Tsuruga, Fukui, Japan, 27 February – 03 March 2023

Background

In view of the rapid expansion of nuclear power programs in the Asia Region, it is recognized that, additional cooperation and timely efforts are necessary to establish effective nuclear safety infrastructure for nuclear installations. ANSN project aims at strengthening the regulatory framework and a sustainable, competent and effective regulatory body to ensure long term nuclear safety. This project is intended to support the member states of Japan, Bangladesh, China, Indonesia, Malaysia, Republic of Korea, Thailand, Philippine, Kazakhstan, Singapore, and Vietnam in building best practices and lessons learned from the experience of the participating Member States and promoting a consensus and working arrangements for addressing common nuclear safety issues. IAEA has also been assisting the countries embarking on nuclear program in the implementation of international safety standards and requirements.

In accordance with the IAEA Safety Principle 3 "Leadership and Management for Safety" and the Safety Requirement 12 of the IAEA safety standard GSR Part 2, safety culture that governs the attitudes and behaviour should be promoted and fostered within all organizations concerned with safety, including licensees and regulatory bodies. Majority of the countries in the region including those embarking on nuclear power programme are keen to develop the capabilities at national level to promote and enhance Safety Culture within both licensee organization and regulatory body.

Objectives

The overall objective of this regional expert meeting is to orient participants of the regulatory bodies to establish a strategic approach to assessing and enhancing safety culture. The meeting will provide a forum for discussing culture, the elements of a safety culture improvement programme, the relationship with other organizational improvement activities and strategies, as well as the role of self-assessment of safety culture in regulatory bodies for establishing improvement priorities.

The purpose of this workshop is to enhance understanding of elements involved in systematically working with safety culture and the key success factors to implementing a safety culture improvement programme by the regulatory bodies. This will include: a strategic perspective on the value of safety culture self-assessment; the application of project management principles to the implementation of the IAEA safety culture self-assessment methodology, and the critical role of senior management ownership and commitment to implementing an improvement program based on the results of the self-assessment.

Work Done

Synopsis of Day 1

The workshop was opened with welcoming remarks in turn from Mr. Takuya Kitabata (Director General, Fukui International Human Resources Development Centre for Atomic Energy [FIHRDC_AE], The Wakasa Wan Energy Research Centre [WERC]) and Mr. Hakuei Ishizuka (Chairman, The Wakasa Wan Energy Research Centre), as well as Mr. Gabriel Soare (Team Leader, Technical Officer, and Nuclear Safety Officer, International Atomic Energy Agency [IAEA]).

The opening session concluded with the introduction of participants, starting with local Japanese experts, invited IAEA experts, and experts/participants from represented Asia Nuclear Safety Network (ANSN) countries. The list of the workshop participants from those countries is attached to this report as Annex II.

After a group photograph, Mr. G. Soare (IAEA) presented the agenda and the objectives and expected outcomes of the workshop. This was followed by a refreshment break and a country presentation from the Philippines on the history of and latest developments in its nuclear safety programme and related institutions or infrastructure, as well as activities, if any, related to safety culture and its assessment.

Mr. Jongile Majola (IAEA-Invited expert, Canada) then led a dialogue on why regulatory bodies needed to assess their own safety culture, which the participants fully engaged in. This dialogue was followed by a presentation by Mr. Majola on IAEA guidance on self-assessment of safety culture by regulatory bodies.

Mr. Kitabata (Director, General, FIHRDC_AE, WERC) then hosted a luncheon for the participants.

The rest of the day was taken up by a presentation by Mr. Mihai Murafa (IAEA-invited expert, Canada and Europe) providing an overview of the various safety culture self-assessment methods used in the IAEA methodology, after which the participants took part in an exercise to develop and deliver an ‘elevator’ pitch to gain management support for safety culture self-assessment within their organisations. This exercise was conducted in parallel work groups and was innovatively role-played and well-executed by the majority of the groups.

The evening was marked by an impressive welcome presentation featuring local delicacies, hosted by the Chairman of the WERC, Mr. Ishizuka.

Synopsis of Day 2

The day began with country presentations from Malaysia and from Indonesia, focusing on their nuclear activities, infrastructure, and latest developments, especially relating to safety culture and its assessment, if any. While there were some safety and security culture assessment activities at both the licensee and regulatory body levels in Malaysia, there had been no safety culture self-assessments yet in Indonesia.

Mr. Mihai Murafa then delivered a presentation on why safety culture and safety culture oversight matter. This was followed by an introduction to the FAKE regulatory body case study material by Mr. Majola.

The presentations on the individual assessment methods in the IAEA methodology for safety culture self-assessment then began, starting with a lecture by Mr. Murafa on designing and conducting a focus group session. This presentation was followed by an exercise on the topic in three parallel work groups, in which the groups performed very well, demonstrating their understanding of the delivered material.

Next, Mr. Majola presented a lecture on conducting an interview, which was also followed by an exercise in work groups on the topic, the results of which were also impressive.

Synopsis of Day 3

The activities of Days 1 and 2 were conducted at AQUATOM, while the activities of this third day were conducted at The Japan Atomic Power Company Tsuruga Training Centre.

Day's presentations began with a country presentation from Vietnam on its nuclear activities, infrastructure, and latest developments, especially the challenges of dealing with safety culture in their situation where the management and staff of many of the key involved organisations do not know much about nuclear safety culture. The need to develop capabilities in the area of safety culture and its assessment were noted.

Mr. Majola then delivered a lecture on designing and conducting a survey. It included a presentation of an overview of the IAEA survey tools for the operator and for the regulator, and how participants could use these tools to leverage the development of their own survey tools.

The lecture/presentation was followed by a group exercise on the topic.

There was a lunch break which was followed by a tour of the training centre. Everyone found the tour to be very interesting and informative, and the tour guides to be very knowledgeable. There are impressive facilities in Japan.

The work groups then presented the results of their work on the survey exercise. It was found that, once again, the groups performed well on the practical exercises.

The last lecture of the day was by Mr. Murafa on conducting an observation. It was followed by a group exercise on the topic. The results, once again, were impressive.

Synopsis of Day 4

Workshop activities moved back to the AQUATOM.

The day began with country presentations from Thailand and from Bangladesh, focusing on their nuclear activities, infrastructure, and latest developments.

Thailand has a fairly well-developed programme management quality assurance approach that involves assessment and that it is applying to safety culture. It has not yet implemented the IAEA methodology.

Bangladesh has a very advanced nuclear power programme compared to the other participating member states. It has already started using the IAEA methodology with results already obtained from surveys and interviews.

The next lecture was by Mr. Majola on designing and conducting a document review, It was followed by an exercise on the topic, the discussion of whose results showed that the participants fully grasped the topic.

The afternoon was taken up by presentations on descriptive analysis by Mr. Murafa and normative analysis by Mr. Majola.

The participants then successfully completed exercises on these topics.

Synopsis of Day 5

The day began with a presentation by Mr. Majola on developing a safety culture self-assessment plan, including a walkthrough of an example of a full-blown plan using all the IAEA methods, with resources and time frames and work breakdown structure provided.

Mr. Majola then expressed his thanks and bid the participants farewell at this point and left the workshop to catch a flight to another IAEA workshop.

The exercise in groups to develop a safety culture self-assessment plan and the evaluation and closing activities of the workshop were led and facilitated by Mr. Murafa and Mr. Soare, and our Japanese counterparts.

Note that throughout the workshop, the IAEA team delivered the presentations and guidance and facilitated the exercises related to the development and implementation of the IAEA safety culture self-assessment methodology in line with the IAEA safety and security standards, on the topic and those related to management systems, such as:

- SF 1 "Fundamental Safety Principles";
- GSR Part 2 "Leadership and Management for Safety"; and
- IAEA Services Series 40 "Guidelines for Safety Culture Self-Assessment for the Regulatory Body"

The presentations delivered are a standard set that has been described in detail in other reports on safety culture self-assessment workshops delivered regionally or nationally at Member states in the last few years by this and other experts. Hence details of the content of the presentations, while readily available, have not been repeated in this report.

Where appropriate, the expert adapted the presentations to the needs of the moment, to foster a better understanding of the presented topics by the participants or to incorporate more salient practical examples.

The expert would like to express its appreciation of (and to) the staff of IAEA and to the Japanese hosts and counterparts for providing all necessary assistance.

The expert also would like to thank Mr. Murafa (the other invited expert) and the participants, for their excellent participation and in making it easy to conduct and enjoy the workshop.

In particular, the expert would like to thank Mr. Gabriel Soare, the IAEA Technical Officer and Ms. Maho Ohira, Manager , FIHRDC_AE, WERC, for all the arrangements, professional support and the excellent cooperation during the preparation for and delivery of the workshop.

Workshop achievements / Recommendations

The workshop achieved its objective and key expected result.

The feedback offered by participants strengthened the opinion of the experts that the workshop was a success and represented an important learning opportunity for everyone.

The participants actively and constantly demonstrated interest, asking questions, expressing opinions, referring to some of their challenges and how the workshop might help them overcome these challenges, and clearly stating their feelings about the workshop being effective.

Further document to be submitted to the PMO separately:

a) Final agenda

b) List of participants
c) Group photo
d) Presentations as listed in the Agenda

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