

Summary Report

ANSN - Regional Workshop on “The development and implementation of effective IMS based on GSR Part 2”

Jakarta, Indonesia July 31 – August 04, 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 Vietnam, Bangladesh, Indonesia, Kazakhstan, Philippines, Malaysia, and Thailand, 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.

Objectives

The overall objective of the meeting is to orient the participants from the regulatory bodies to what is involved in establishing a strategic approach to develop and implement an integrated management system. The workshop will provide a forum for discussing why we need a management system, what are the IAEA requirements and guidance on integrated management system (IMS), types and characteristics of performance indicators, example of a regulatory body's process description and its key performance indicators.

The purpose of this meeting is to enhance understanding of elements involved in systematically working with IMS by the regulatory bodies. This will include: a strategic perspective on the value of the management system; the application of project management principles to the implementation of the IAEA requirements and guidance on developing and implementing of a IMS.

Work Done

The workshop was opened with welcoming remarks from Mr. Sugeng Sumbarjo (Acting Chairman, BAPETEN. Mr. Sumbarjo gave an overview of the nuclear utilization in Indonesia and BAPETEN's regulatory functions. This was followed by Mr. Gabriel Soare (Team Leader, Technical Officer, and Nuclear Safety Officer, International Atomic Energy Agency [IAEA]), who thanked the hosts, welcomed the participants to the workshop; presented the agenda and the objectives and expected outcomes of the workshop.

The opening session concluded with the introduction of the two IAEA experts and the BAPETEN Management team. Due to the schedule, the introduction of the participants from the Asia Nuclear Safety Network (ANSN) countries were carried out sometime later.

The list of the workshop participants from those countries is attached to this report in Appendix II.

After a group photograph, the Host organization, BAPETEN presented their presentation on “The Development and Implementation of Effective Integrated Management Systems for Nuclear Facilities and Activities-Indonesia” This was followed by a refreshment break and then a country presentation from Kazakhstan on Irradiation activities and IMS at the WWR-K reactor at the Institute of Nuclear Physics, Almaty, Kazakhstan.

Subsequently, Mr. Jongile Majola (IAEA-Invited expert, Canada) then began with the first IAEA presentation on “IAEA Safety Standards and Publications, GSR Part 2 Leadership and Management for Safety and Responsibility for Safety” to explain the structure and basis of the safety standards, the purpose of GSR Part 2 and Principle 1 being the Responsibility for safety.

After lunch break, the session reconvened with the second IAEA presentation presented by Ms. Kuen Sia (IAEA-Invited expert, Canada) on “Establishment and implementation of IMS”. This was aimed at introducing the relevant requirements in the IAEA safety standards and recommendations to establish and implement an integrated management system.

It was then followed by the next presentation on “Management of processes and activities” presented by Mr. Majola. Thereafter, Mr. Majola proceeded with the exercise session and the remainder of the day was spent on the exercise and interactive discussions with participants on “plan to establishing management system”. This exercise was conducted in parallel work groups, after which the finished exercise presented by each group to all the participants for comments and discussions.

Mr. Soare concluded the first day of the workshop with a log-out dialogue with each participant providing their feedback on their day 1 experience.

Summary of Day 2

Day 2 began with a Log-in dialogue, debriefing by Gabriel Soare of day 1 and any outstanding questions from the previous session from the participants followed by the country presentations from Vietnam and Bangladesh. Vietnam provided the participants with an in-sight of the Nuclear Research Facilities and Activities in Vietnam and its National Legal Framework and Bangladesh presented on their government’s vision and target for power generation and the construction of the country’s first Rooppur nuclear power plant.

Following a short break, the workshop resumed with Ms. Sia’s presentation on “Integration of Management Systems” to highlight the reasons and benefits for integrating the management system. This was followed by Mr. Majola’s presentation on “Management System Integration Graded Approach and Documentation” where Mr. Majola reinforced that all the requirements for a process have to be identified and applied in the related process, as well interaction with other processes have to be identified and integrated in the related process and in ensuring that safety is not compromised.

Ms. Sia presented the next presentation on “Measurement, Assessment, and Improvement of Integrated Management System” discussing the how to measure, assess and improve the effectiveness of the management system using the various measurement and assessment method.

After lunch, Mr. Majola kicked off the afternoon with his presentation on “Cycles in plant performance,” where Mr. Majola emphasized that a good operational performance greatly correlated with strong safety and security culture, and good, effective leadership. Following Mr. Majola’s presentation, the participants were given an exercise on “Process model or map” to work on. The participants were divided into 3 teams, and they were tasked with defining core, management and supporting processes; the sequence of processes; define interaction/ interrelation of processes and define key input and output of each process. At the end of the exercise period, each team presented their outputs for comments and discussions with their peers in the workshop. This was followed by a log-out and completion of Day 2 workshop.

Summary of Day 3

Following the log-in exercise and debriefing of day 2, Thailand presented on the “Effective Integrated Management Systems for Nuclear Regulatory Body in Thailand where the government uses the award model as the approach to assess, plan, and manage their program. Thereafter, the participant from the Philippines gave a presentation on “Philippine Nuclear Research Institute Overview of the nuclear programs”. Currently there are no existing integrated management systems and no regulatory authority in place in the Philippines yet.

Ms. Sia continued with the next IAEA presentation on “Leadership for Safety” where the focus was on IAEA’s approach to leadership for safety, overview on the concepts of leadership for safety, leadership roles and responsibilities and management of growth and change in the organization.

Additionally, Mr. Majola complemented Ms. Sia’s presentation with his presentation on “Management for Safety.” This is where senior managers establish goals, strategies, plans and objectives for the organization, such that safety is not compromised by other priorities and they ensure that the goals are in line with strategies, plans and objectives. There is a periodic review to adjust for changes and senior managers are responsible for establishing, applying, sustaining, and continuously improving a management system, so that all work (or activity) at a facility is carried out safely.

The next presentation was on “Canadian Regulatory Oversight of Management Review” presented by Ms. Sia on how the Canadian Nuclear Safety Commission regulatory body conducts management review of the licensees.

In the afternoon after lunch, Mr. Majola gave his presentation on “Roles and Responsibilities of Management,” which focused on understanding the primary responsibilities of ensuring that the organization gives top priority to safety and security and provides resources and means to fulfil these responsibilities; how to implement goals, strategies, plans, and objectives in a consistent manner; understanding the need to set safety and security objectives at all organizational levels that are consistent with the organization’s safety and

security policy, and; prioritizing roles for establishing applying, sustaining and improving the organization's management system.

This was followed with an exercise period for the participants on "Leadership versus Management". The exercise was conducted in the same team arrangements and each team presented their output to the group at the end of the session for comments and discussions.

The day finished off with a good log-out of suggestions on what to see, what to do and what to eat/taste in Indonesia. An abundance of great suggestions and tips were provided by the Indonesian participants to their foreign counterparts.

Summary of Day 4

Proceeding the log-in exercise and debriefing of day 3, Malaysia presented on the "Benefits of the Integrated Management Systems in a Regulatory Body and challenges in achieving an effective and efficient operation." This was followed by Mr. Majola's presentation on "The Regulator approach to leadership." To hone into this, Mr. Majola provides some insight information on:

the nature of safety and accidents- importance of human and organisational factors; which organizations have responsibilities for safety of an NPP; who has primary responsibility and why; actions to implement this responsibility; common goals and methods of nuclear regulatory organisation; approaches to regulatory oversight of leadership and management for safety and safety culture.

After the morning break, Ms. Sia presented the next presentation on "Why safety culture oversight matters," to provide a greater understanding of the process and issues promoting and supporting a strong safety culture in the context of a regulatory body. The presentation also sought to provide an increased awareness and understanding of the methods for monitoring and measuring management systems, safety culture and organizational performance.

Following the presentation, Mr. Majola introduced an exercise to the participants on "Policies" where the objective of the exercise was to understand how policies are developed and implemented and where they fit in the hierarchy of documents in an integrated management system. On completion of the exercise, each team present their results to the group for comments and discussions.

Later in the afternoon after the team exercise, Mr. Majola finished off the day with his presentation on "An Introduction to Culture" and provided the participants with information on how the concept of organizational culture has changed significantly since it was conceived in the 1980s and how is culture perceived generally.

In the evening, the Acting Chairman, Mr. Sugeng Sumbarjo (BAPETEN) and his management team hosted a dinner in a restaurant off-site for the IAEA team and the workshop participants. It was a memorable evening with a great selection of local foods enjoyed by all.

Summary of Day 5

The day began with the log-in volunteered by Indonesia followed by a short brief from Mr.

Soare. Then Mr. Majola commenced with his last and final presentation for the workshop on “IAEA approach to safety culture and assessments” Mr. Majola discussed the Evolution of Safety Culture, Leadership, Management and Culture for Safety in IAEA and IAEA future developments. Ms. Sia then finished her last presentation on “Overview of the safety culture self-assessment process (SCSA)” discussing the 9-step process, benefits of SCSA and the availability of IAEA training for SCSA.

The workshop concluded with a question period, an evaluation and sum-up reflections from the participants, certificate award ceremony and closing remarks by Gabriel Soare. The Workshop was officially closed by Mr. Zainal Arifin, Deputy Chairman of BAPETEN for Licensing and Inspection

Workshop achievements / Recommendations

The participants actively and constantly demonstrated interest, asked questions, expressed opinions, referred to some of their challenges, and clearly stated their feelings about the workshop being effective. They appeared very interested in learning how other organizations and regulatory bodies address similar challenges. The IAEA team members discussed examples and shared some of their own experiences in addressing these challenges.

The feedback offered by participants strengthened the opinion of the experts that the workshop was a success, achieving all its objectives and representing an important learning opportunity for everyone.

As recommendation, follow-up sessions should be provided to the participants to facilitate sharing of their experience based on information learned from the workshop and their challenges faced in establishing, implementing, and maintaining of their Integrated Management System, including safety culture.



This project is conducted by the IAEA, with funding by Japan and the Republic of Korea, among others.