KEYNOTE

AT THE

INTERNATIONAL EXPERTS' MEETING ON ASSESSMENT AND PROGNOSIS IN RESPONSE TO A NUCLEAR OR RADIOLOGICAL EMERGENCY

Organized in connection with the implementation of the IAEA Action Plan on Nuclear Safety

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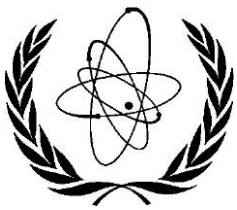

INTERNATIONAL ATOMIC ENERGY AGENCY

Dear participants,

In a nuclear or radiological emergency, situational awareness and the understanding of the potential hazards, how they may evolve during the emergency, are critical in order to properly respond and to plan for any eventual changes in the course of response actions.

The need for this situational awareness was clearly demonstrated in the accident at the Fukushima Daiichi NPP, an extremely complex, severe and evolving emergency which featured not only one nuclear power unit under blackout conditions, but multiple units in the midst of a dreadful tsunami devastating the region.

The global response required not only an understanding of the humanitarian conditions in the areas in Japan, which were affected by the earthquake and tsunami, but also the understanding of the technical conditions at the Fukushima Daiichi NPP, which were in many ways uncertain. Indeed, information channels, resources and arrangements for information sharing were pushed to their limits.

At the time of the accident, the role of the IAEA covered four distinct aspects in the response to a nuclear or radiological emergency: (1) notification and exchange of official information through officially designated contact points; (2) provision of timely, clear and understandable public information; (3) provision and facilitation of international assistance upon request; and (4) coordination of the interagency response.

This role did not include the provision of a prognosis of the potential evolution of the accident or an assessment of its possible consequences, contrary to the expectations of many Member States and the public.

I very vividly remember, during our daily briefings to Member States, how a number of countries close to Japan, but without developed nuclear knowledgeable institutions, kept asking the Agency what actions their Governments should take to protect their citizens, their land and their commerce. They kept asking us what the risks were and how they were evolving from day to day.

The IAEA, through its emergency arrangements, liaised directly with the nuclear regulatory body of Japan, Nuclear and Industrial Safety Agency (NISA), which was the official contact point in Japan. At the IAEA, we worked on a 24/7 schedule during 54 days, receiving and widely sharing information on the emergency as it developed and keeping our

Member States, relevant international organizations and the public informed to the best of our capabilities.

In Member States with developed nuclear institutions, Technical Support Organizations and institutes with specialized knowledge, worked to understand the situation and provide advice to their governments and citizens, sometimes independently, sometimes in cooperation with other institutions.

From an international perspective, it was clear, that many different messages were reaching the public on the development of the accident, and how the situation might evolve in the coming weeks and months after the accident. At the same time, there was no clear mechanism to provide a harmonized message to the global community. This absence of a harmonised message created some confusion in the public, even though most of the situation assessments were fundamentally very similar. This is an area where the IAEA, acting as the global focal point during a nuclear emergency, could have helped, but lacked the mandate to engage in such situation assessments.

The 2011 IAEA Action Plan on Nuclear Safety expanded the IAEA Secretariat's response role during an emergency at a nuclear power plant to cover the need "… to provide Member States, international organizations and the general public with timely, clear, factually correct, objective and easily understandable information during a nuclear emergency on its potential consequences, including analysis of available information and prognosis of possible scenarios based on evidence, scientific knowledge and the capabilities of Member States."

Taking to this task of assessment and prognosis, we launched many high priority actions to develop procedures and processes for ensuring fulfilment of this new responsibility in case of nuclear or radiological emergencies. We established goals, developed a methodology to achieve our objectives, we implemented specific modules in our internal training programme and eventually, we conducted exercises with counterparts in Member States. These exercises assisted us in further developing our cooperation with them, and answered the request to involve the "capabilities of Member States" as stated in the Action Plan on Nuclear Safety. For the success of this process, we drew on human competences from all around the Agency, involving IAEA staff from all six Departments of the Agency.

The assessment and prognosis process builds on the existing international emergency preparedness and response framework and is based on the IAEA Secretariat's capabilities, complemented by Member States' capabilities through the IAEA Response and Assistance Network (RANET) and other arrangements. During an emergency at a nuclear power plant,

our arrangements and capabilities, our guidance and tools, our expert human resources in conjunction with the capabilities of various Member States, will be used in the assessment of possible consequences and prognosis of likely emergency progression.

The IAEA assessment is an evaluation of the planned and implemented protective actions and other response actions by an Accident State to determine whether they are in broad compliance with relevant IAEA safety standards. The IAEA assessment does not replace neither duplicate any national responsibility to respond and protect the public, instead, it is internationally focused and based on IAEA safety standards and guidance.

Within this expanded role, a prognosis is a bounding estimate of how an emergency may progress. This will be accomplished using IAEA guidance and tools.

It is important to recognize that although this is a new expectation from the IAEA during a nuclear or radiological emergency, the IAEA has been publishing guidance documents on how to conduct assessment and prognosis during nuclear and radiological emergencies for several decades. All this guidance is available in EPR safety standards and operational documents that are available to all Member States and the public. This guidance has been used extensively in the EPR training delivered to Member States in the last decades and is further developed to form the basis of the future training events.

We have noticed a significant interest from Member States who want to support the assessment and prognosis activities, and we need to enhance our collaboration with MSs in this field. It is important to do it now, as it is recognised that the preparedness phase is long and complex and requires constant and repeated bilateral exercises to test the coordinated elaboration of assessment and prognosis products.

This is why we are looking for significant support from Member State counterparts to assist with the IAEA's assessment and prognosis process. We call for Member States with pre-identified advanced assessment capabilities to register them early in RANET at the preparedness stage.

Assessing a situation based on IAEA safety standards and guidance is well within the IAEA's capabilities – but advanced prognosis of how a nuclear reactor accident may progress is ultimately far too complex to be done in isolation by the Secretariat. We are seeking support from Member States with advanced capabilities in this area to work with the IAEA on assessment during an emergency. This work is absolutely critical for the IAEA to be able to provide other Member States and the public with timely, clear and authoritative assessed information.

An important consideration in this process is the need to harmonize our message with the 'Accident State'. It is well recognized that the countries which have constructed, licensed or operated the reactor will have the absolute best resources to understand what is happening, to understand what may happen next during an emergency.

Our aim is definitely not to replace the responsibilities of the "Accident State" in responding to the emergency and protecting the public. The IAEA's assessment process and purpose is intended to complement these national responsibilities with our own assessment addressing the concerns of the global community.

We have already been very active to advertise the important work that has been done in this area. We have informed the IAEA Board of Governors, we have hosted side events during the General Conference, hosted consultancy meetings to receive feedback from experts and to develop solutions to challenging problems. We have also participated in National exercises to demonstrate exactly what types of activities are to be expected. We have provided briefings to the Meeting of Representatives of the Competent Authorities identified Under the Early Notification and Assistance Conventions. And we have indeed consulted the Emergency Preparedness and Response Expert Group seeking their views on the details of the process.

We do believe that, with the active involvement of Member States, the IAEA's assessment during an emergency will help to harmonize the technical viewpoints of the global community. The IAEA will support the coordination and development of consistent messages for the public. This will help to actively demonstrate transparency during an emergency and will keep IAEA technical counterparts in Member States better informed through emergency communication channels.

As we have all learned lessons from the accident at the Fukushima Daiichi NPP, many changes have been implemented, at the IAEA as well as in organizations in Member States, to increase the capability to address the task of assessment and prognosis in response to a nuclear or radiological emergency.

This meeting is about discussing and sharing lessons learned and ideas so that we are all better prepared to work together during any future emergency.

On Thursday morning we will discuss much of the activities that have taken place at the international level with regards to assessment and prognosis – including exercises that have taken place, how the IAEA assessment is shared with an Accident State before it is released to the public and important initiatives such as identifying information that can be

shared before an emergency to make us all better prepared to cooperate should an emergency occur in the future.

In many of the sessions during this meeting we will discuss and hear about the latest state-of-the-art assessment capabilities that have been developed and improved since the Fukushima Daiichi NPP accident in Japan.

I thank you for your participation to this expert meeting and I am confident that the conclusions of the meeting will be of high relevance for the future steps we need to take to consolidate our cooperation in assessment and prognosis in response to a nuclear accident or radiological emergency.

Thank you for your attention.