



IEC
Incident and
Emergency Centre

EPR INSIGHTS

Updates on Emergency Preparedness and Response

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A background image showing a press conference or media event. Several professional video cameras and microphones are visible, with a person's hand partially seen in the foreground. The scene is brightly lit, suggesting an indoor setting.

FOCUS: PUBLIC COMMUNICATION IN A NUCLEAR OR RADIOLOGICAL EMERGENCY

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“Communicators don’t contribute to the mission; they just talk about what other people do.” Although words like this can still be heard sometimes, experts in emergency preparedness and response know that such a statement couldn’t be more wrong. As we continue to learn from past emergencies, it is clear that effective public communication contributes significantly to a successful response to a nuclear or radiological emergency.

It needs to be acknowledged that those responsible for public communication are emergency responders, too. Their mission is to mitigate the effects of an emergency on people, property and the environment by promptly addressing public concerns in a coordinated, understandable and consistent manner. Experience has clearly shown that public reaction to an emergency will have an impact on the effectiveness of the response efforts. Professional public communication, based on solid training and practical exercises, can positively affect the way in which the public reacts and helps to mistrust, fear and an exacerbation of the situation.

However, effective communication cannot be improvised. We need to be prepared to respond. This is not an easy task in a constantly changing information and media landscape. As geographical, linguistic and cultural barriers are overcome in an increasingly interconnected world, communication must encompass many different facets, and the use of universally understandable messages becomes paramount.

Previous emergencies, as well as nuclear security threats with local, national, regional and international consequences, have taught us this lesson. These emergencies have raised public awareness and concerns across borders. Public communicators must ensure that a consistent message is given to the public and the media during an emergency. It is therefore essential that communicators are prepared for managing the different sources of information; responding

to diverse audiences; differentiating between the specific terms and terminologies applied; understanding how people perceive risk; and realizing the social implications of risk perception. They also have to learn how to interact with the different interested parties, whether official or not, that may influence the response.

In a major step forward, the first comprehensive international guidance on public communication in nuclear and radiological emergencies is being prepared by the Agency in the form of an IAEA Safety Guide. Currently being drafted by international experts and discussed with Member States, it is scheduled to be published in 2018. It will provide international best practice and recommendations to guide Member States in developing effective communication arrangements in nuclear and radiological emergencies.



Kaisa Raitio, Head of Public Affairs at the Finnish Radiation and Nuclear Safety Authority (STUK). (Photo: STUK)

To retain the credibility of communication during an emergency response, we need to ensure that emergency communication is well planned, executed and integrated into every stage of the emergency management. This is a continuous effort and the new Safety Guide will ensure that the steps to do so are set out for all Member States.

Kaisa Raitio
Head of Public Affairs
Finnish Radiation and Nuclear
Safety Authority (STUK)

DEVELOPING PUBLIC COMMUNICATION GUIDANCE

FIRST INTERNATIONAL SAFETY GUIDE ON PUBLIC COMMUNICATION IN A NUCLEAR AND RADIOLOGICAL EMERGENCY

Am I safe? Can my children drink the milk? When can I return to my home? During a nuclear or radiological emergency, emergency responders, especially those responsible for public information, may face these and many other questions from the people affected. Creating international guidance on how to communicate important information to the public in order to support an effective emergency response was the focus of a technical meeting which took place in Vienna from 5 to 9 September 2016.

Ultimately, the goal of any public communication during an emergency is to contribute to the protection of people. Well planned and properly resourced communication arrangements can help people to understand and comply with protective actions. The public's fear and the perception of their personal risk can hamper informed decision making. Lessons learned from previous emergencies, such as the March 2011 Fukushima Daiichi nuclear power plant accident, have continually highlighted the need for effective public communication.

Sixty-nine experts from 48 countries and five international organizations convened at IAEA headquarters to drive the development of the first IAEA safety standards document specifically focusing on public communication during nuclear and radiological emergencies. The Safety Guide that is expected to emanate from these

consultations will provide international best practice and recommendations in this area.

Lynn Hubbard, chair of the technical meeting, noted that, in bringing together so many experts, the meeting offered a wide perspective of the various national public communication arrangements being employed throughout the world. She pointed out that, "experience has demonstrated the challenges involved in communicating with the public during nuclear or radiological emergencies. Past emergencies have had local, national, regional and international consequences which have heightened and expanded public awareness and concerns. This meeting gave us an opportunity to learn from the different approaches used to communicate to the public and we can bring this shared knowledge into developing the first draft of the Safety Guide."

Adapting to any emergency

The new Safety Guide will apply to nuclear and radiological emergencies regardless of whether they arise from an accident, negligence or a deliberate act. It will give direction on how to adapt public communication in line with the level of response required for any nuclear and radiological emergency. Participants from several Member States delivered presentations during the meeting on the national methods and internal arrangements they have developed to coordinate public communication actions with response requirements.

“Effective public communication in any response is contingent on the level of preparedness of the Member State and the organizations involved, which must be based on strong internal coordination” said Kaisa Raitio, Head of Public Affairs of the Radiation and Nuclear Safety Authority in Finland. She added that, “as a public information officer, it is imperative that I coordinate with the relevant response personnel of the emergency command and control structure in order to ensure that a consistent message is delivered to the public”.

Coordination is just one element that will be addressed in the Safety Guide. The meeting

also emphasized the need for thorough guidance on developing a communication plan, planning for resource requirements and using easily understandable and factual language supplemented by imagery.

The technical meeting was just one part of the development of the Safety Guide. With the input of the Member States, the draft will be completed in the coming months and then undergo an intense vetting process by various IAEA safety standards committees and the Member States before it will be officially issued as an IAEA safety standards publication.

WHAT ARE IAEA SAFETY STANDARDS?

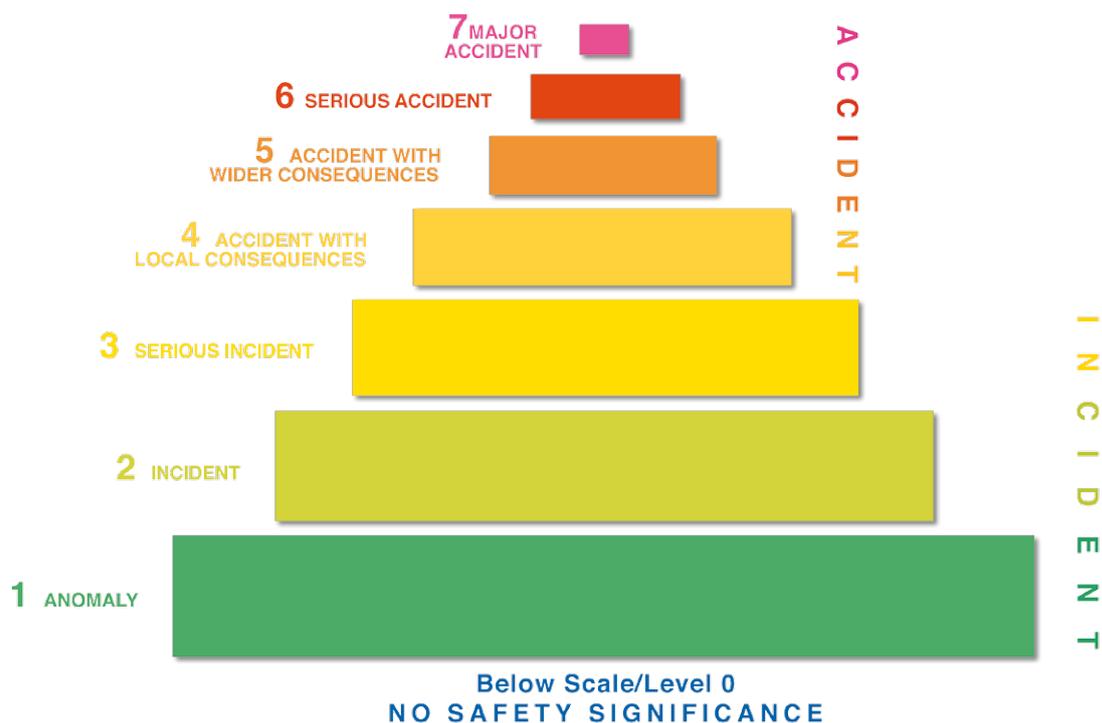
The IAEA safety standards provide a system of Safety Fundamentals, Safety Requirements and Safety Guides for ensuring safety. They reflect an international consensus on what constitutes a high level of safety for protecting people and the environment from harmful effects of ionizing radiation. The IAEA safety standards are applicable throughout the entire lifetime of facilities and activities – existing and new – utilized for peaceful purposes, and to protective actions to reduce existing radiation risks. The IAEA safety standards have a status derived from the IAEA’s Statute, which authorizes the IAEA “To establish or adopt, in consultation and, where appropriate, in collaboration with the competent organs of the United Nations and with the specialized agencies concerned, standards of safety for protection of health and minimization of danger to life and property [...] and to provide for the application of these standards”.

Below: Tanja Perko, from Belgium, addresses participants in the technical meeting on the Draft Safety Guide (Photo: S.Harvey/IAEA).



INES NATIONAL OFFICERS MEET

COMMUNICATING THE SAFETY SIGNIFICANCE OF EVENTS ASSOCIATED WITH SOURCES OF RADIATION



Communicating with the public about radiation incidents and emergencies brings many challenges. Scientific terms and technical jargon are hard to understand for a general audience. Additionally, the public perceive risks differently from experts. In 1990, the International Nuclear and Radiological Event Scale (INES) was devised as a communication tool to promptly and consistently communicate to the public the safety significance of events associated with sources of radiation.

A group of international experts brought together by the IAEA and the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD/NEA) in 1990 developed INES to keep the public and the media, as well as

the technical community, accurately informed on the occurrence of events at nuclear power plants and to put the safety significance of the events in the correct perspective. Since then, the scope of the scale has been significantly extended. It now covers a broad range of events associated with sources of radiation, such as: activities at nuclear facilities; a wide spectrum of practices in industry and medicine; transport of radioactive material; loss or theft of radioactive sources or packages; and the discovery of orphan sources. A lesson learned from the use of the scale was the focus of the biennial meeting of the INES national officers which took place at IAEA headquarters from 21 to 25 November 2016 with the participation of 53 representatives from 45 IAEA Member States and two international organizations.



INES National Officers are experts in areas within the scope of INES, such as the use of sources in industry and transport. As INES is a tool for communicating safety significance, National Officers need to work closely with public information officers and/or spokespersons in their countries.

How does the INES scale work?

INES is used to rate the safety significance of events using a scale ranging from ‘anomaly’ (rating 1) to ‘major accident’ (rating 7). Events are rated in terms of their impact in three different areas: impact on people and the environment; impact on radiological barriers and control; and impact on ‘defence in depth’. Levels 1–3 are defined as ‘incidents’ and levels 4–7 as ‘accidents’. Events with no safety significance are rated “below scale /level 0”.

Member States unilaterally decide if they want to use INES to rate events occurring in their respective countries and to use it in their communication process. Although the use of INES is voluntary, Member States in general agree to share information on an international level on events rated at level 2 or above, and events attracting international media attention. Information about the events is then conveyed to all IAEA Member States through the secure IAEA web portal entitled the Unified System for Information Exchange in Incidents and Emergencies (USIE), and to the public through a dedicated news channel (<https://www-news.iaea.org>), which has been used to communicate the safety significance of about 900 events over the past two decades.

Learning from the past INES ratings

The meeting focused on the current scope of INES; the events that have been rated on the scale in the past two years; and on the revision of the rating guidance captured in the methodology.

Simon Coenen, the INES Advisory Committee co-chair from Belgium, said the meeting “gave each INES National Officer the chance to share their own experiences and learn from each other about the use of INES in the evaluation of, and communication on, nuclear and radiological events.”

Marty Larabie, the INES Advisory Committee co-chair from Canada, added, “In 2008 the application of INES was extended from its original focus on nuclear power plant events to include civil nuclear industry, nuclear installations and the transport, storage and use of radioactive material and radiation sources. In taking stock of how the scale has evolved, the meeting gave perspective for the work that will be done on the revision of the INES user’s manual, the rating guidance for INES, as well as on actions required to promote the implementation and harmonized use of INES”.

FURTHER INFORMATION ON INES

Email: ines@iaea.org

Visit: <https://www-ns.iaea.org/tech-areas/emergency/ines.asp>

NEWS Information Channel on Nuclear and radiological events: <https://www-news.iaea.org/>

NEW E-LEARNING COURSE LAUNCHED

COMMUNICATION WITH THE PUBLIC IN A NUCLEAR OR RADIOLOGICAL EMERGENCY

“ The course assists learners with practical guidance on how to coordinate all sources of official information and ensure a consistent message is being provided to the public before, during and after a radiation emergency. ”



Training in how to effectively communicate with the public during an emergency cannot follow a one-size-fits-all approach. Public information officers (PIOs), and those tasked with the role of communicating, must update their skills and be flexible in their approach in response to the unique character of each emergency.

Although emergencies involving radioactive material are rare, they may happen for a wide variety of reasons. Building strong capacities through training can therefore facilitate preparedness for and response to these emergencies.

The IAEA's Incident and Emergency Centre (IEC) has added a new item to the catalogue of training materials with the recent launch of the e-learning course entitled “Communication with the public in a nuclear or radiological emergency”. This course is a self-paced training programme, broken down into 16 distinct modules. Each module is designed to explain the recommended principles and procedures which help to facilitate efficient public communication in a nuclear and radiological emergency.

This course supports the IAEA's Emergency Preparedness and Response series publication of the same name. It assists learners with practical guidance on how to coordinate all sources of official information and ensures that a consistent message is being provided to the public before, during and after a radiation emergency. It uses examples of past emergencies, simulated scenarios, exercises and expert tips to advise on the best approach for preparing and training for emergency communication.

The course also provides communication principles and practices to assist PIOs in achieving effective communication during a nuclear and radiological emergency. This will help to mitigate the effects, support the implementation of protective actions and contribute to minimizing negative psychological impacts on the public.

PIOs have a vital role in the early response to a nuclear and radiological emergency. In order to successfully carry out that role, it is essential for the PIO to be prepared and trained before an

emergency occurs. The e-learning course offers a new method for PIOs to access IAEA training to acquire new skills or update existing skills, and perform regular self-assessment on the IAEA safety standards, guidance and technical resources on their own schedule.

The course is available at:

<http://elearning.iaea.org/nuclear-safety/>

Course name: Communication with the public in a nuclear or radiological emergency.

E-LEARNING MODULES

MODULE 1 Examples of public communication in nuclear or radiological emergencies	MODULE 2 Types of radiation emergencies	MODULE 3 Public perception of risk	MODULE 4 Public communication programme
MODULE 5 Public communication within a command and control system	MODULE 6 Coordination of information	MODULE 7 Special considerations for communicating in an emergency	MODULE 8 Sources of information
MODULE 9 Audiences and communication channels	MODULE 10 Communicating information about radiation	MODULE 11 Presenting messages	MODULE 12 Media relationships
MODULE 13 Spokesperson	MODULE 14 Challenges in public communication	MODULE 15 Emergency exercise scenario	MODULE 16 Good practice for public information officers

FEATURED QUOTE



Mr Lentijo presents a plaque to Mr Flemming Klokager, Deputy Director General, Danish Emergency Management Agency during the official ceremony. Photo: W. Gruenwald/IAEA).

“ Nuclear or radiological emergencies are rare, but when they happen despite all prevention efforts, international cooperation of the kind facilitated by the IAEA Response and Assistance Network can play a key role. ”

Juan Carlos Lentijo

IAEA Deputy Director General and Head of the Department of Nuclear Safety and Security, at the official ceremony welcoming Denmark as the 30th member of RANET

20.09.2016

AUSTRIA HOSTS IAEA SCHOOL OF RADIATION EMERGENCY MANAGEMENT

DEVELOPING A CADRE OF EMERGENCY RESPONSE MANAGERS

The Fourth IAEA School of Radiation Emergency Management was held in October 2016 in the Civil Protection School, Traiskirchen, Austria. With the school the IAEA assists Member States in capacity building for emergency preparedness and response (EPR) to nuclear or radiological emergencies. Its objective is to help Member States develop a cadre of emergency response managers who are familiar with a broad range of EPR topics in line with IAEA Safety Standards.

The school in Austria welcomed a diverse group of participants from 17 different European Member States. It encompassed a wide variety of professionals involved in EPR, ranging from first responders to regulators and government officials. The participants attended lectures and working sessions and carried out field and table-top exercises. They also took part in a number of technical visits, which included tours

of the Zwentendorf nuclear power plant, local decontamination units and hospital emergency facilities, and watched demonstrations concerning radiation emergencies and airborne radiometry by the Austrian fire, police and Red Cross services. Feedback from participants of the school has been overwhelmingly positive, and future schools are currently being planned.

On the last day of the school, an official signing ceremony was held between Juan Carlos Lentijo, IAEA Deputy Director General and Head of the Department of Nuclear Safety and Security, and Johann Bezdeka, Deputy Director General, Federal Ministry of Interior of Austria, officially marking the designation of the Civil Protection School in Traiskirchen as a capacity building centre for emergency preparedness and response.

Below: Participants at the IAEA School of Radiation Emergency Management, Traiskirchen, Austria, from 3 to 21 October 2016 (Photo: E. Waller/IAEA).





EVENTS

Contact Point for Events: IEC-Information@iaea.org

UPCOMING EVENTS IN 2017

25 – 26
Jan

Preparatory Mission for Emergency Preparedness Review Service (EPREV), Belarus

Purpose: To agree on the Terms of Reference for the upcoming EPREV which will appraise the level of preparedness for nuclear or radiological emergencies in Belarus.

13 – 17
Feb

Technical Meeting on Next Generation Reactors and Emergency Preparedness and Response, Vienna, Austria

Purpose: Address the use of the fifth level of defence in depth and the IAEA safety requirements in EPR for the development of next generation nuclear power reactors.

13 – 17
Mar

Training Workshop for Senior Educators on Radiation Emergency Preparedness and Response, Vienna, Austria

Purpose: Help participants from Member States who are involved in EPR training activities to improve their skills, specifically with regard to adult teaching strategies, so that they can fulfil their duties as trainers more effectively.

RECENT EVENTS IN 2016

12 – 16
Dec

Workshop on Communication with the Public during a Nuclear or Radiological Emergency, Fukushima, Japan

Purpose: The workshop, to be held at the IAEA's Response and Assistance Network (RANET) Capacity Building Centre in Fukushima, will provide fundamental information and practical guidance to emergency response officers, acting within a command and control system, on public communication during a nuclear and radiological emergency.

29 Nov –
2 Dec

Third Meeting of the Emergency Preparedness and Response Standards Committee (EPRReSC), Vienna, Austria

Purpose: Make recommendations on the EPR aspects of the IAEA's programme for the development, review and revision of Safety Standards and on the activities to support the use and application of these standards.

28 Nov –
2 Dec

Technical Meeting to Review the IAEA's Assessment and Prognosis Procedures for Nuclear and Radiological Emergencies, Vienna, Austria

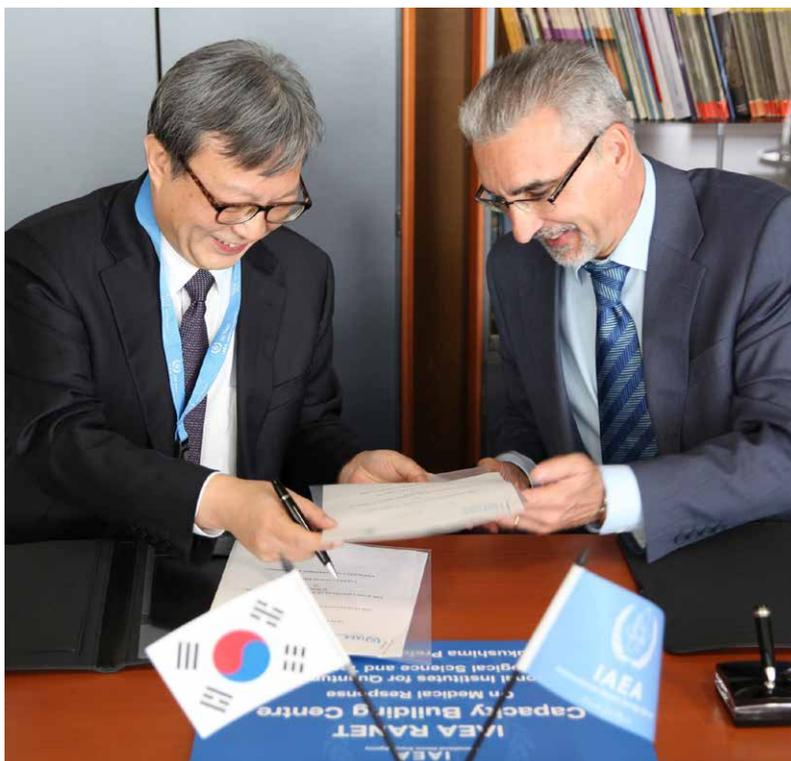
Purpose: Present, review and discuss various parts of the assessment and prognosis process for a nuclear or radiological emergency.

18 – 28
Sep

Emergency Preparedness Review Mission, Indonesia

Purpose: By request, appraise the level of preparedness for nuclear or radiological emergencies in Indonesia.

Right: Juan Carlos Lentijo, IAEA Deputy Director General and Head of the Department of Nuclear Safety and Security, with Chang Woom Choi, President, Korea Institute of Radiological and Medical Sciences, at the signing ceremony marking the designation of the Institute as a capacity building centre for emergency preparedness and response on 27 September 2016. (Photo: W. Gruenwald/IAEA).



Below: IAEA public information officers (in green vests) during a Full Response Exercise (5 October 2016). They are responsible for all media/public information issues, including the preparation of accurate, clear and plain language information and answering inquiries from the media and the public during nuclear or radiological emergencies. (Photo: S. Harvey/IAEA).



IMPRESSUM

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