



IEC
Incident and
Emergency Centre

EPRINSIGHTS

Updates on Emergency Preparedness and Response

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**FOCUS:
ENHANCING
INFORMATION
EXCHANGE FOR
EMERGENCY
PREPAREDNESS
AND RESPONSE**



Above: Participants in the International Workshop on Emergency Preparedness and Response for First Responders, which took place in Vienna from 9 to 13 May 2016, conduct exercises on how to correctly detect and assess radiation sources.

The workshop, held in cooperation with the U.S. Department of Energy, included specialized lectures and equipment demonstrations. A session that allowed participants to use the equipment and gain practical experience in detection and identification was held in the IAEA Laboratories in Seibersdorf, Austria. (Photo: S. Harvey/IAEA).



Left: IAEA Staff working as screening officers during a Full Response Exercise (16 June 2016).

The IEC conducts internal Full Response Exercises to test the IAEA's ability to fulfil response roles under the Incident and Emergency System, based on a simulated event. (Photo: W. Gruenwald/IAEA).

IMPRESSUM

EPR Insights: Enhancing Information Exchange for EPR

EPR Insights is prepared by the Incident and Emergency Centre (IEC), Department of Nuclear Safety and Security
International Atomic Energy Agency

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DISCLAIMER

This brochure is distributed by the Incident and Emergency Centre of the IAEA. The information provided does not necessarily reflect the opinions of governments of States that are Member States of the IAEA and/or Parties to either or both of the Early Notification Convention and the Assistance Convention, or of the governments of other States, or of relevant international intergovernmental organizations.

Although great care has been taken to maintain the accuracy of information contained in this brochure, neither the IAEA Secretariat nor its Member States assume any responsibility for consequences that may arise from its use.

Emergency preparedness and response (EPR) arrangements have been continuously adapted as a result of the experience gathered over many decades. Emergencies such as the Chernobyl Nuclear Power Plant accident have prompted IAEA Member States to formalize the way in which they share information and provide common access to lessons learned in the EPR area. These arrangements are key in dealing effectively and efficiently with potential future emergencies.

EPR Insights serves as a hub for regular updates on the latest developments in the EPR area at the IAEA, including the activities of the IAEA's Incident and Emergency Centre (IEC). This issue focusses on how the exchange of information and the sharing of experiences by IAEA Member States have strengthened the global system for preparedness and response.

The use of the latest online EPR tools and provisions for information sharing on national arrangements, capabilities and best practices were among the topics discussed at the eighth meeting of the representatives of competent authorities under the Early Notification Convention and the Assistance Convention, held at IAEA headquarters in Vienna in June 2016. Competent authorities used this opportunity to discuss the experiences gained in national emergency preparedness and response programmes. The meeting emphasized the importance for States to establish and maintain effective communication channels between the responsible national authorities at all times to improve coordination and decision making processes.

The IAEA School of Radiation and Emergency Management, held in Brazil in November 2015, also presented the participants from 15 Latin American Member States with an opportunity to share the experiences in the EPR area in their respective countries. The various lectures, practical sessions and exercises provided by the school allowed the participants to gain a comprehensive understanding

of the basic principles of EPR with regard to nuclear and radiological emergencies, based on IAEA safety standards and guidelines.

A new IAEA publication sets out the requirements for ensuring an adequate level of preparedness and response for a nuclear or radiological emergency, irrespective of its cause, taking into account the latest developments in the area. The IAEA General Safety



Elena Buglova, Head of the Incident and Emergency Centre, speaks at the eighth meeting of the representatives of competent authorities (Photo: W. Gruenwald/IAEA).

Requirements on Preparedness and Response for a Nuclear or Radiological Emergency (IAEA Safety Standards Series No. GSR Part 7) are intended to be used by governments, emergency response organizations, other authorities at the local, regional and national levels, operating organizations and the regulatory body as well as by relevant international organizations at the international level.

As the global focal point for international emergency preparedness and response to nuclear and radiological emergencies, the IAEA helps to improve the way in which States share information, knowledge and experience in EPR. Our common goal is to work together to further develop arrangements build comprehensive and internationally harmonized capabilities that allow us to respond efficiently and in a timely manner to any nuclear or radiological emergency, consistent with IAEA safety standards.

Elena Buglova
Head of the IAEA Incident and Emergency Centre

FACILITATING EXCHANGE OF INFORMATION AND EXPERIENCE IN EPR

8TH MEETING OF THE COMPETENT AUTHORITIES



Representatives of Competent Authorities attend the 8th CAM in 2016. (Photo: W. Gruenwald/IAEA).

The use of the latest EPR online tools and information sharing on national arrangements, capabilities and best practices were among the major topics discussed at the eighth meeting of the representatives of competent authorities under the Early Notification Convention and the Assistance Convention, held at IAEA headquarters from 6 to 10 June 2016. The IAEA is the global focal point for coordinating international communication, assistance and response to nuclear and radiological emergencies.

“The common challenge,” Juan Carlos Lentijo, Deputy Director General and Head of the IAEA’s Department of Nuclear Safety and Security, stated, “is to capture and disseminate the experience from the relatively few nuclear emergencies, so that all of us can learn from it and build upon it in preparing for possible future emergencies that might occur.”

Recommendations emerging from the meeting included the importance of implementing the IAEA Safety Requirements on Preparedness and Response for a Nuclear or Radiological Emergency, improving communication with the public, enhancing EPR training programmes, establishing specialized capacity building centres and sharing lessons

learned from IAEA and national EPR exercises that test response capabilities.

Strengthening EPR tools

Participants discussed the various online tools created by the IAEA to help in reinforcing global EPR: the EPR Information Management System (EPRIMS), a self-assessment tool launched last year for States to review the state of their emergency preparedness; the Unified System for Information Exchange in Incidents and Emergencies (USIE), a secure web-based platform for communicating information related to nuclear or radiological emergencies; and the International Radiation Monitoring Information System (IRMIS), which visualises and maps radiation monitoring data.

Participants also examined the various approaches in EPR by different countries in order to assess where improvements were required in their own national EPR programmes and where greater global harmonization was needed.

As Carl-Magnus Larsson, Chair of this meeting and Chief Executive Officer of the Australian Radiation Protection and Nuclear Safety Agency, emphasized: “The necessity of a coherent approach to dealing with incidents and emergencies, whether

they are triggered by safety or security events, and the need to avoid fragmentation in how to deal with the prevention, preparedness and response to such events is vital.”

Plan, prepare, and respond

The meeting affirmed that, as part of the global efforts to harmonize EPR, national response arrangements need to be in line with IAEA safety standards and best practices. In addition, it was seen as important to harmonize the terminology used when developing EPR arrangements, including public messaging, by making reference, for example, to the IAEA Safety Glossary and other Agency publications.



Improve public communication

During the meeting, communication with the public on EPR, including the use of specific terms, was

also addressed. Terms such as ‘hazard’, ‘risk’ and ‘safe’ can be interpreted in many different ways and may have a variety of meanings. Hence, there is a need to find mechanisms to put the consequences of nuclear and radiological emergencies in perspective. Experience has shown that the use of scales, simple terminology and/or colour schemes that are easily understood by the public may help to achieve this objective, and it was agreed that the IAEA should continue to develop guidance in this regard.

Moreover, participants encouraged national authorities to recognize the expectations of both the media and the public during an emergency. When developing concrete public communication arrangements, the need to provide up-to-date and credible information in a timely manner should therefore be taken into account.

Other issues raised at the meeting included guidance on strengthening long term planning of EPR exercises in Member States and the registration of their national assistance capabilities in the IAEA’s Response and Assistance Network (RANET).

REGISTERED PARTICIPANTS

FACTS & FIGURES



5 INTERNATIONAL ORGANIZATIONS

- Comprehensive Nuclear-Test-Ban Treaty Organization
- European Commission
- Food and Agriculture Organization of the United Nations
- Nuclear Energy Agency of the Organisation for Economic Cooperation and Development
- World Health Organization

For more information see <http://www-pub.iaea.org/iaeameetings/51831/Eighth-Meeting-of-the-Representatives-of-Competent-Authorities-identified-under-the-Early-Notification-Convention-and-the-Assistance-Convention>

Photos found at https://www.flickr.com/photos/iaea_imagebank/albums/72157669536034255

TRANSFERRING SKILLS

IAEA SCHOOL OF RADIATION EMERGENCY MANAGEMENT

The IAEA School of Radiation and Emergency Management was held in Rio de Janeiro, Brazil, from 9 to 27 November 2015. Hosted by the Brazilian Institute of Radioprotection and Dosimetry (IRD) of the National Nuclear Energy Commission (CNEN), it was the first full-scale EPR training of this magnitude provided by the IAEA.

Participants from 15 Member States in the Latin American region were taught vital competencies and skills in EPR and trained in the use of the tools to strengthen the EPR mechanisms in their respective countries. The School was an unqualified success, and it will serve as a model for other regional efforts in EPR training by the IAEA.

The School's syllabus was designed by the IEC in cooperation with international experts. It aims at providing participants with a comprehensive understanding of the basic principles of EPR with regard to nuclear and radiological emergencies, based on IAEA safety standards and guidelines. The first course included lectures, practical sessions, field and tabletop exercises, site visits and frequent discussions between participants and lecturers. The School also offered a platform to share experience among the participants who represented a variety of response organizations.

In order to experience the practical aspects of EPR, participants visited an actual emergency operations centre, decontamination facilities and a nuclear power plant to see the arrangements in place for facing nuclear emergencies. At the end of the course, all participants elaborated their own national draft action plan on EPR which is to be shared with their national authorities.

“The success of the initial course and the feedback from its participants will drive our efforts to make it a pillar of IEC training activities”, said the IEC's coordinator of the School, Mr. Rodrigo Salinas. This notion was supported by the participants, one of whom described the School as “learning by doing”, emphasizing that “the experience,

“ The success of the school and feedback from its participants will drive our efforts to make it a pillar of IEC training activities. ”

Mr Rodrigo Salinas
Emergency Preparedness Officer,
IEC (Coordinator of the School at
the IEC)



CBRN-Battalion of the Brazilian Army demonstrating the decontamination of a vehicle to the participants during one of the site visits (Photo: P. Vilar Welter/IAEA).



Raul dos Santos, CNEN, teaches a class at the school of radiation emergency management in Rio de Janeiro, Brazil. (Photo: IAEA).

the obtained knowledge and the personal and professional networking during the school were spectacular”.

The School is part of the IAEA’s strategy in capacity building in EPR and was funded by the IAEA and the European Union.



Two participants in the school, from Peru and Bolivia, practise techniques for donning personal protective equipment. (Photo: IAEA).

The IAEA is encouraging Member States to serve as future hosts for the School to ensure that its global reach is fully realized. Students will learn the basic elements of preparedness and response to nuclear and radiological emergencies, including emergency management systems, protective actions, public communications and international arrangements in EPR.

The School was funded by the European Union and the IAEA.



FACTS & FIGURES

28 Participants from 15 Member States in the Latin American region learned how to facilitate effective implementation and coordination of the provisions of EPR arrangements in their countries.

“ The experience, the knowledge obtained, and the personal and professional networking during the school were spectacular. ”

Mr Perez Zeleda
(School participant from Guatemala)

IAEA SAFETY STANDARDS SERIES NO. GSR PART 7

PREPAREDNESS AND RESPONSE FOR A NUCLEAR OR RADIOLOGICAL EMERGENCY

“ A major source of information for those Member States seeking to enhance their national emergency arrangements for many years to come. ”

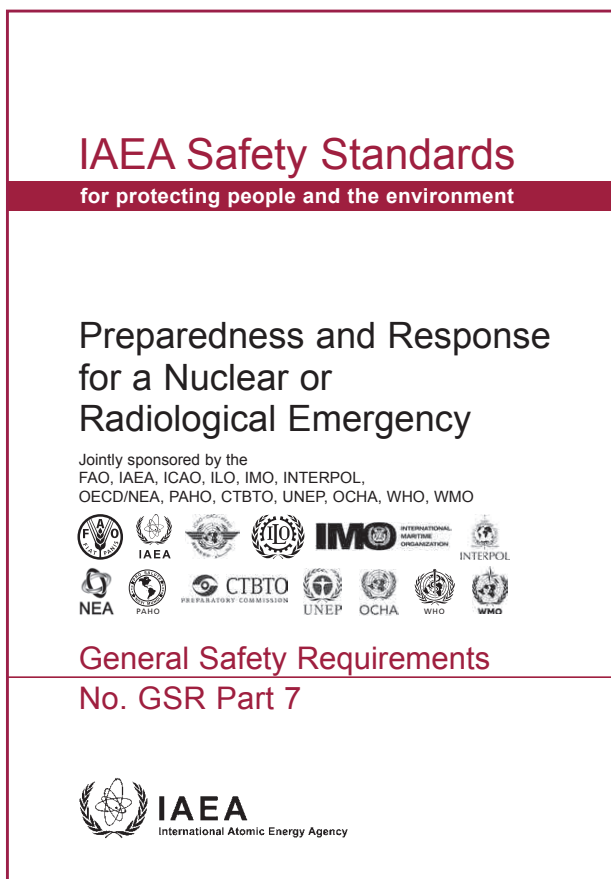
Ms Svetlana Nestoroska Madjunarova, Emergency Preparedness Officer at the IEC

A new publication in the IAEA Safety Standards Series sets out the safety requirements for all Member States to consider when developing or enhancing their EPR frameworks. The IAEA Safety Requirements publication on Preparedness and Response for a Nuclear or Radiological Emergency (IAEA Safety Standards Series No. GSR Part 7), which derives from past experiences in emergency response and the latest developments in the area, aims to ensure that adequate EPR arrangements at national, regional and international levels are in place to respond effectively to an emergency. The GSR Part 7 has been jointly sponsored by 13 international intergovernmental organizations, the highest number of co-sponsors for IAEA Safety Standards publication thus far.

International cooperation during a transboundary nuclear or radiological emergency contributes to the efforts of the affected States to mitigate the consequences. While the primary responsibility for EPR within a State remains with the respective national authorities, the IAEA has been promoting international cooperation in this field by publishing international Safety Standards to help guide States in preparing to effectively respond to a nuclear or radiological emergency.

Strengthening international cooperation and communication

Recommendations from the publication include that Member States reinforce their emergency management systems, establish protection strategies for a nuclear or radiological emergency, strengthen the resilience of emergency arrangements against a range of hazardous conditions and protect emergency workers and helpers. By recommending the harmonization of national EPR systems, the GSR Part 7 aims



The IAEA Safety Standards Series No. GSR Part 7.

to enhance cooperation among countries during transboundary emergencies and to strengthen the requirements for information sharing among the international community.

As the global focal point for preparedness and response for nuclear or radiological emergencies, the IAEA's Incident and Emergency Centre has extensive experience in international preparedness and response policies and mechanisms. As Svetlana Nestoroska Madjunarova, an emergency preparedness officer at the IEC, has pointed out: "The new safety requirements in emergency preparedness and response will become a major source of information for those Member States seeking to enhance their national emergency arrangements for many years to come".

Supporting the application of the GSR Part 7

The IAEA has initiated various activities to support Member States with the effective implementation of the GSR Part 7. These activities include regional workshops which seek to raise awareness among Member States of the new safety requirements, discuss their impact on existing EPR arrangements, identify potential challenges in their implementation and isolate identify areas that require further support. The first workshop for Member States

in Europe was successfully held in Vienna from 16 to 20 November 2015 and was attended by 26 participants from 26 Member States. In October and November of this year, two regional workshops are planned to be held for Member States in Latin America and in Asia and the Pacific region, with additional national and regional workshops to follow. Member States are encouraged to consider hosting national workshops on the GSR Part 7 to support implementation of its requirements at the national level and to allow for the involvement of the highest number of national experts.

In addition, the IAEA, in cooperation with the international organizations co-sponsoring the GSR Part 7, plans to hold a series of webinars focusing on the implementation of the requirements. The first webinar was launched jointly with the International Labour Organization (ILO) on the protection of emergency workers and helpers in a nuclear or radiological emergency. The three hour webinar was held on 6 May 2016, with lectures conducted by staff from the IAEA and ILO, and was attended by more than 110 participants worldwide.

The IAEA Safety Standards Series No. GSR Part 7 can be found at: <http://www-pub.iaea.org/books/IAEABooks/10905/Preparedness-and-Response-for-a-Nuclear-or-Radiological-Emergency>

FEATURED QUOTE



“The IAEA has unique emergency response capabilities in the form of our Incident and Emergency Centre. It would become operational within minutes after a State reported a nuclear security-related incident to us. We could send nuclear security experts and radiation measurement teams to the affected country, help organise medical assistance and organise nuclear forensics investigations. ”

Mr Yukiya Amano

IAEA Director General

2016 Nuclear Security Summit

05.05.2016



EVENTS

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

UPCOMING



Emergency Preparedness Review Mission to Indonesia.

Purpose: Appraise the level of preparedness for nuclear or radiological or emergencies in Indonesia.



International (and Regional) Efforts to Enhance Emergency Preparedness and Response, side event of the IAEA General Conference, Conference Room C4, from 4:00 – 6:00 p.m, Vienna International Centre.

Purpose: Give an overview of the development of the International Radiation Monitoring Information System (IRMIS) and of the status of the European Union Radiological Data Exchange Platform (EURDEP). emergency, and identify areas where it needs to be further improved.



IAEA School of Radiation Emergency Management: Training on Nuclear or Radiological Emergency Preparedness and Response, side event of the IAEA General Conference, Conference room C5, from 12.00 noon to 2.00 p.m., Vienna International Centre.

Purpose: Give an overview of the IAEA School of Radiation Emergency Management.

RECENT



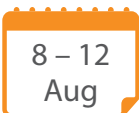
Technical Meeting on the Draft Safety Guide on Arrangements for Communication with the Public during a Nuclear or Radiological Emergency, Vienna, Austria.

Purpose: Review, together with representatives of Member States and relevant international organizations, the draft text of a proposed new Safety Guide, which addresses arrangements for communication with the public in preparedness and response for a nuclear or radiological emergency, and identify areas where it needs to be further improved.



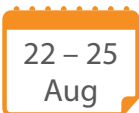
2nd Meeting of the Emergency Preparedness and Response Standards Committee (EPRcSC).

Purpose: Make recommendations on the emergency preparedness and response (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.



Pilot Training Workshop for Senior Educators on Radiation Emergencies, Preparedness and Response, Vienna, Austria.

Purpose: The advancement of incident and emergency preparedness depends upon strengthening education and training for competent practice. This workshop was designed to integrate relevant adult education principles (drawn from current educational theory, philosophy and practice) into the entire scope of the training activities at the IEC.



Workshop on Emergency Preparedness and Response.

Purpose: The workshop, held at the IAEA's Response and Assistance Network (RANET) Capacity Building Centre in Fukushima City, was designed to help countries build capacity in preparation for a nuclear or radiological emergency.



Juan Carlos Lentijo, Deputy Director General and Head of the IAEA Department of Nuclear Safety and Security, and Randy Bell, Director of the International Data Centre of the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), sign an agreement reinforcing the cooperation of the two organizations on response to nuclear or radiological emergencies. (Photo: W. Gruenwald/IAEA).

Since the Fukushima Daiichi accident in 2011, the IAEA and the CTBTO have cooperated through the Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE) and the Joint Radiation Emergency Management Plan of the International Organizations (JPlan). The CTBTO shared its monitoring data and analysis reports with the IACRNE during the accident, and the information was used by the IEC to track radiation and monitor levels of radioactivity and to assist with the response.



IAEA

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