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IEC Newsletter



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Spotlighting IEC Activities at the 58th IAEA General Conference

Side event on Medical Management of Radiological Accidents

During this year's 58th General Conference, the IAEA and France co-hosted a side event on Medical Management of Radiological Accidents: French and South American Experience and Co-operation.

The event provided an overview of ten years of international co-operation within the IAEA in the field of medical management of radiological accidents, under the overall umbrella of the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (Assistance Convention).

A particular focus was placed on the actions undertaken over the past two years to create a capacity building network involving France and South American countries and on possible ways to forward develop this network. Representatives from Brazil, Chile, France and Peru shared their experiences and discussed avenues for further

combined efforts in the medical management of radiation accidents.

Echoing the perspectives expressed by the panel,



Side Event on Medical Management of Radiological Accidents: French and South American Experience and Cooperation, Vienna International Centre, Austria, 23 September 2014. (Photo Credit: W. Gruenwald/IAEA).

Ms. Susana Petrick, President of the Peruvian Institute of Nuclear Energy (IPEN), high-lighted the importance of the assistance provided in the cases of overexposure which took place in Peru. She also emphasized the efficiency of the IAEA's Response and Assistance Network (RANET) in the effective management of the situations, with the significant medical contribution of the French Hôpital d'instruction des armées Percy and the technical support from the Institut de Radioprotection et de Sécurité Nucléaire (IRSN).

The General Conference side event closed with a question and answer session mediated by HE Marion Paradas, Ambassador of France to the IAEA, and Ms. Elena Buglova, Head of the IAEA IEC.

Side event on Bab Al Maghrib ConvEx-3

To spotlight the Bab Al Maghrib Level 3 Convention Exercise (ConvEx-3) and review the lessons learned from the exercise, an event was held at the IAEA on 23 September 2014, during the 58th IAEA General Conference.

In November 2013, an emergency exercise on the response to a radiological emergency triggered by the explosion of a radiological dispersal device, or ‘dirty bomb’, was organized by the IAEA and hosted by Morocco. Fifty-eight States and ten international organizations took part in this ConvEx-3.

A ConvEx-3 exercise is the highest and most complex level emergency exercise conducted by the IAEA every three to five years. It is designed to test national and international preparedness for responding to a severe nuclear or radiological emergency and identify emergency preparedness and response (EPR) areas requiring improvements. The Bab Al-Maghrib ConvEx-3 was the first of its kind, since it offered an opportunity to evaluate the response to a severe radiological emergency triggered by a nuclear security event.

In his opening remarks at the side event, the Permanent Representative of Morocco to the IAEA, Mr. Ali El Mhamdi, stated that the exercise “shows how the IAEA aids Member States, and how international organizations have responded and how they all worked together in such events.”



Ms. Elena Buglova, Head of the IAEA IEC, the importance of these emergency exercises and encouraged the meeting attendees to provide their “thoughts on, and potential hosting for, the next ConvEx-3 exercise, which is scheduled to take place in 2017.”



*Top left and above: Side event on Bab Al Maghrib ConvEx-3, Vienna International Centre, Austria, 23 September 2014.
(Photo: N. Jawerth/IAEA, W. Gruenwald/IAEA-IEC)*

TM on Lessons Learned from Past Emergency Preparedness Review (EPREV) Missions

A Technical Meeting (TM) on Lessons Learned from Past Emergency Preparedness Review (EPREV) Missions was implemented from 14 to 17 July in Vienna, Austria. This meeting considered the lessons learned during the past years from implementing EPREV missions in order to further strengthen the EPREV service.

The meeting was chaired by Mr. Brian Ahier from Canada. Mr. Denis Flory, Deputy Director General, Head of the Department of Nuclear Safety and Security, opened the meeting, emphasizing that EPREV missions have had a positive impact on the continuous improvements of EPR in host countries. He also stressed the importance of EPREV as one of the peer review services offered by the IAEA.

The meeting was divided into seven sessions. Presentation topics included the national experience and improvements made as a result of EPREV

missions; the EPREV process; other IAEA appraisal missions; as well as lessons learned from the Fukushima Daiichi Nuclear Power Plant accident and its impact on EPREV missions (practical session). In a final session, the way forward to improve EPREV missions was discussed.

The Technical Meeting helped identify valuable lessons for the future development of EPREV. A general agreement on the main conclusions, suggestions and recommendations for the improvement of missions was reached.

The final report of this meeting included observations and recommendations on a variety of topics: the use and benefits of EPREV missions, their scope and focus and their preparation; the self-assessment process; team composition, size and mission duration; coordination with other peer review missions and international organizations; the follow-up phase; security and transparency, as well as the measurement of the effectiveness of EPREV missions. The inputs gathered during this Technical Meeting are being considered for the review of the EPREV guidelines and for further strengthening the EPREV process.



Participants of the Technical Meeting on Lessons Learned from Past Emergency Preparedness Review Missions, Vienna International Centre, Austria, 14 July 2014. (Photo Credit: N.Wellhausen/IAEA-IEC)

Third Full Response Exercise of 2014

The IEC regularly trains more than 150 IAEA staff members in emergency preparedness and response. This ensures that they are familiar with their tasks at all times and ready to be activated, ensuring that the IAEA is able to fulfil its response roles.

The IEC conducted its third internal Full Response Exercise of the year on 20 August 2014. Thirty-three participants from different divisions of the Secretariat participated. The scenario included severe conditions at a nuclear power plant, leading to an emergency without off-site release.



Above and on the right: IAEA staff during the third internal Full Response Exercise, 20 August 2014 (Photo Credit: W. Gruenwald/IAEA-IEC)

The purpose of this exercise was to practice the activation and notification procedures as well as the assessment and prognosis process. The exercise was also aimed at identifying issues to improve the information management in the IAEA's Incident and Emergency System (IES).

After the onset of this exercise, the on-call Emergency Response Manager was tasked with responding to an incoming message and deciding on the IEC activation level. Once this was declared, about 20 staff members came to the IEC to assume the first shift. Two hours later, other colleagues took over the next shift. Shift turnovers are an important element of the IEC's internal exercises, since it is essential to transmit knowledge between shifts and

keep track of tasks that need to be addressed or completed.



Israel joins RANET

On 1 August 2014, the Israel Atomic Energy Commission formally submitted its registration forms to join the IAEA Response and Assistance Network (RANET). Israel registered in a total of 16 National Assistance Capabilities across five of the RANET Functional Areas.

Under the Assistance Convention "States Parties shall, within the limits of their capabilities, identify and notify the Agency of experts, equipment and materials which could be made available for the provision of assistance to other States Parties in the event of a nuclear accident or radiological emergency as well as the terms, especially financial, under which such assistance could be provided." By joining RANET, Israel became the 26th State Party to meet this obligation under the Assistance Convention.

Israel's registration helps contribute to further strengthen the international assistance mechanism through which Member States may obtain assistance, upon request, in case of a nuclear or radiological emergency.

IEC News

The IEC welcomes Pascal Dumont (Canada) as Consultant, and Benigno Aquino (Austria), Grégoire Jacquot (France) and So-Hyun Park (Republic of Korea) as Interns.

Launch of Emergency Preparedness Network (EPnet)

The Emergency Preparedness Network (EPnet) was launched by the IEC during the 58th General Conference as part of the Global Nuclear Safety and Security Network (GNSSN).

EPnet is an online platform aimed at connecting emergency preparedness and response professionals through a collaborative space. There are six professional sub-networks within EPnet: Emergency Planners, First Responders, Radiation Specialists, Medical Practitioners, Dose Assessment Experts and Public Information Officers.

To register, go to gnssn.iaea.org.

For further inquiries, contact us at EPnet.contact-point@iaea.org.



*The EPnet team at the network's launch, 23 September 2014.
(Photo Credit: W. Gruenwald/IAEA-IEC)*



Screenshot of the new EPnet website

IEC Response to Recent Events

A radiological accident involving an industrial radiography source occurred in February 2014 at Ventanilla, Callao, Peru, resulting in the overexposure of one individual who required medical treatment. An assistance mission conducted in April and May to provide medical advice and support in dose assessment recommended that the patient undergo specialized medical treatment.



Medical discussions evaluating the therapeutic approach for the patient. (Photo credit: E. Herrera Reyes, IAEA-IEC)

A second request for assistance from Peru was received, and in July, the patient was transferred to the 'Marcilio Dias' Navy Hospital (HNMD) in Rio de Janeiro, Brazil, to undergo medical treatment within the framework of the international assistance under the Assistance Convention.



Part of the medical team after the first surgery in the 'Marcilio Dias' Navy Hospital (HNMD) in Rio de Janeiro, Brazil.

Three IAEA Assistance Missions were organized by the IEC to Brazil, with the objective of providing medical support in the treatment of the Peruvian patient. The therapeutical approach applied consisted of two surgeries and four autologous injections of

mesenchymal stem cells. Hyperbaric chamber sessions were performed and nutritional support, psychological support and rehabilitation therapy were also provided.

The assistance missions consisted of medical experts from the following institutions who were involved at different stages of the treatment, including: the Institut de Radioprotection et de Sûreté Nucléaire (IRSN) and the Hôpital d'Instruction des armées Percy from France, Comissão Nacional de Energia Nuclear (CNEN), Instituto de Radioproteção e Dosimetria (IRD), Instituto Nacional de Câncer (INCA) and 'Marcilio Dias' Navy Hospital from Brazil, the Instituto Peruano de Energía Nuclear (IPEN) and the Guillermo Almenara Irigoyen National Hospital from Peru, and the IEC.

At the time of writing, the patient presents a good evolution, with clinical parameters that are within normal values. The patient spent the last stage of hospitalization in Brazil and was transferred to Peru in November 2014 to continue with the medical follow-up established by the experts.

Member State Preparedness

Inter-Regional Level:

- Training Course on Actions to Protect the Public in an Emergency due to Severe Conditions at a Nuclear Power Plant (Austria, Vienna, 7–11 July);
- Emergency Preparedness and Response for Major Public Events (USA, Washington, DC, 11–15 August).

Regional Level:

- Training Course on Emergency Preparedness and Response in Severe Accidents (China, Fuzhou City, 30 June–4 July);
- Training Course on Medical Response to Radiation Emergencies (Austria, Vienna, 21–25 July);
- Training Workshop on Communication during Emergencies organized under the Asian Nuclear Safety Network (ANSN) (Phase II) (Thailand, Chiang Mai, 18–22 August).

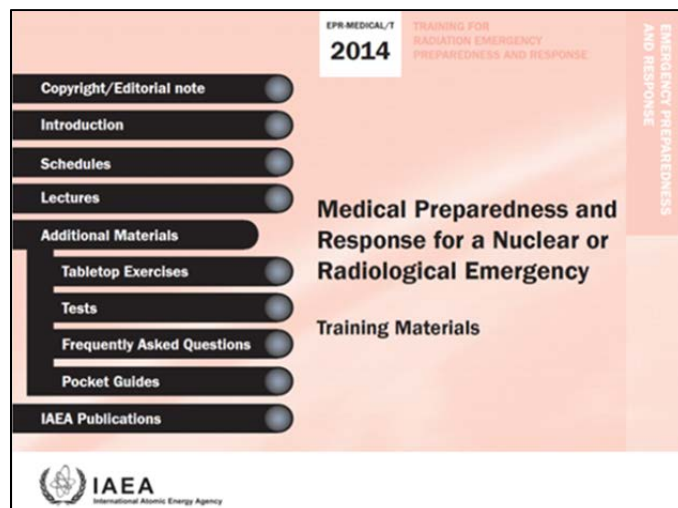
National Level:

- Expert mission to review and evaluate the national Regional Radiological and Nuclear Emergency Preparedness Plan (RNEPR) (Oman, Muscat, 7–11 September);
- Expert mission to review and evaluate the national RNEPR (Bahrain, Manama, 14–18 September).

The IEC participated in Integrated Regulatory Review Service (IRRS) missions to Slovenia and Viet Nam, and in preparatory review missions to India, the Republic of Korea (follow-up) and Hungary. The IEC also conducted an EPREV mission to the United Republic of Tanzania and an EPREV preparatory mission to Nigeria.

Furthermore, the IEC participated in the Health Physics Society's 59th Annual Meeting and exhibition in Baltimore in July.

Under Article 5.b (ii) of the Assistance Convention, one function of the IAEA is to assist, upon request, a State Party or a Member State in developing appropriate training programmes for personnel to deal with nuclear accidents and radiological emergencies.



The present training materials are intended to be used for these purposes. These materials are also meant to support the practical implementation of the recommendations put forward in the final report on the International Action Plan for Strengthening the International Preparedness and Response System for Nuclear and Radiological Emergencies.

To download this publication, go to: http://www-pub.iaea.org/MTCD/Publications/PDF/EPR-Medical_T_2011/Start.pdf

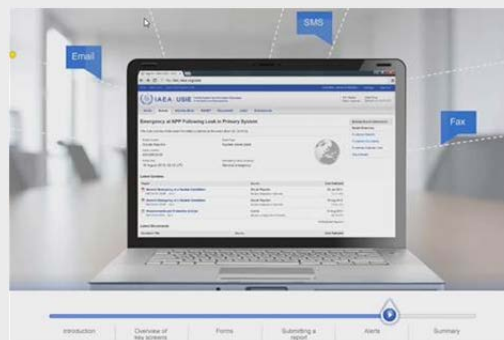
New Publications and Translations

New Publication

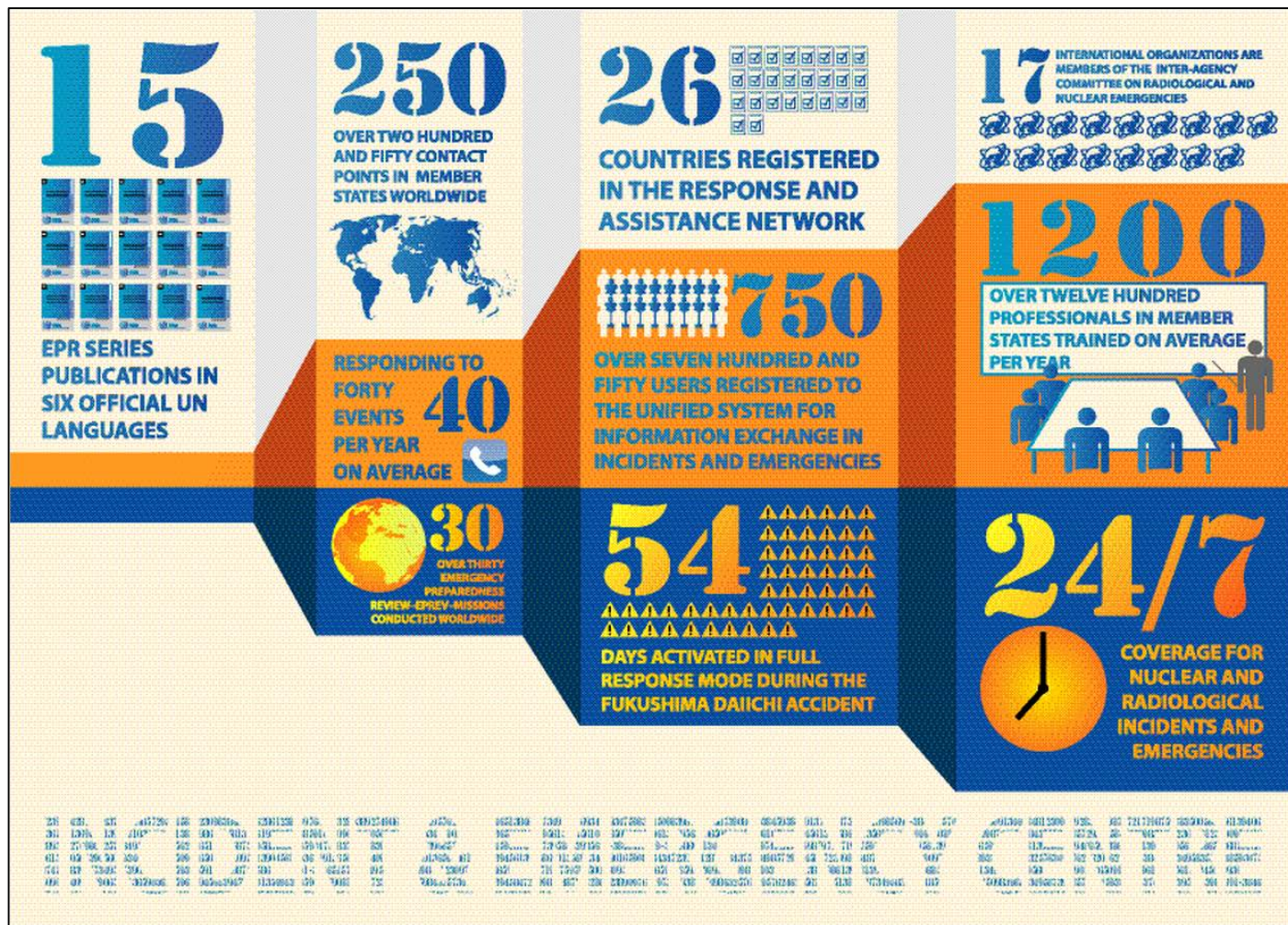
The Training Materials on Medical Preparedness and Response for a Nuclear or Radiological Emergency (EPR-Medical/T 2012) has been updated and published as EPR-Medical/T 2014.

New USIE training video

As of July, an Unified System for Information Exchange in Incidents and Emergencies (USIE) introduction/training video is available to all USIE users through the 'Links' area on the USIE website. The 12-minute long video is primarily intended for new users who would like to get a quick introduction to the USIE website. All USIE administrators are encouraged to point any new USIE users they register to this video. A downloadable version of the video for use in trainings and workshops may be requested from the IEC.



The IEC in Numbers



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