



News from the Incident and Emergency Centre  
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## First EPREG Meeting Convened

With an objective to enhance international emergency preparedness and response (EPR), the IAEA Board of Governors in 2004 approved the five-year International Action Plan for Strengthening the International Preparedness and Response System for Nuclear and Radiological Emergencies. In 2010 the action plan activities ended with a report that identified activities that need to be addressed by Member States and the IAEA Secretariat, recommended key strategic elements for successful implementation of sustainable EPR systems, and provided a number of detailed recommendations on international communications, international assistance and sustainable infrastructure. One of the key strategic elements recommended was to establish a senior EPR advisory group that would provide advice on EPR matters to the IAEA's Deputy Director General, Head of the Department of Nuclear Safety and Security.

The Emergency Preparedness and Response Expert Group (EPREG) was established at the end of 2012 as a standing body of senior experts with high professional competence and demonstrated leadership in the field of preparedness for and response to radiation emergencies to provide advice to the IAEA Secretariat on actions needed to ensure continuous and coordinated EPR enhancement and implementation strategies. The group consists of 16 experts in EPR covering all regions.

The first meeting of EPREG was convened on 11 and 12 February 2013. The purpose of the meeting was to constitute the EPREG, to discuss current international activities in the area of emergency preparedness and response and to discuss priorities for their further implementation. Ms. Lynn Hubbard, Head of the Emergency Preparedness and Response Section of the Swedish Radiation Safety Authority, was appointed as EPREG Chairperson.



*EPREG Chairperson Ms. Lynn Hubbard,  
Head of the Emergency Preparedness and Response Section of the Swedish Radiation Safety Authority  
(Photo Credit: Swedish Radiation Safety Authority).*

The second meeting is scheduled for the end of August 2013.

# IEC Response to Recent Events

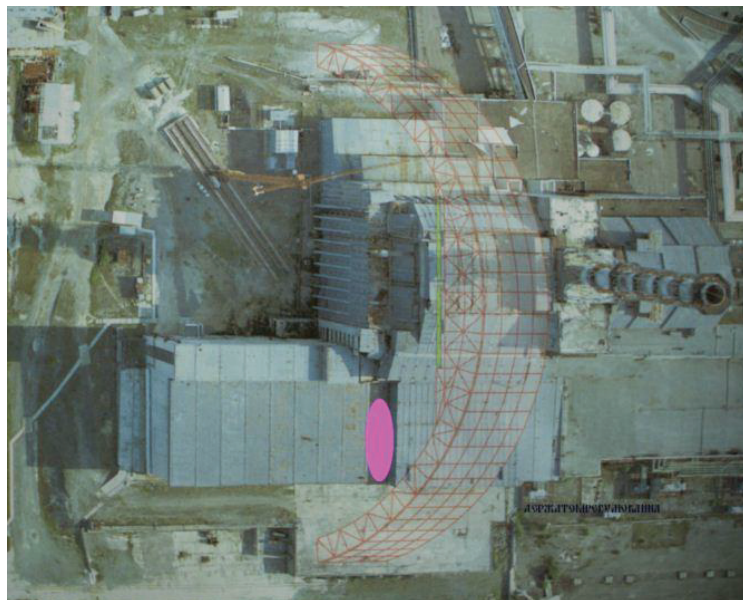
## PAKISTAN - Overexposure of 3 workers in industrial radiography

The IEC offered the IAEA's Good Offices on 10 January to Pakistan in relation to an industrial radiography accident, which occurred in October 2012 at Phool Nagar, near Lahore, Pakistan. According to the International Nuclear and Radiological Event Scale (INES) report posted by the Pakistan Nuclear Regulatory Authority (PNRA) on the IAEA's Unified System for Information Exchange in Incidents and Emergencies (USIE)/Nuclear Event Web-based System (NEWS) web sites in January 2013, a Ir-192 radioactive source with an activity of 2.479 TBq (67 Ci) became stuck in the guiding tube, which remained unnoticed for 30 minutes during its transportation from the work site to the office. The most exposed worker reported symptoms that included a headache and vomiting in the first 24 hours after the exposure and his whole body dose was estimated to be in the range of 2 Sv. The PNRA rated this accident a level 3 event on the INES scale.

## UKRAINE - Collapse of turbine hall roof at Chernobyl nuclear power plant on 12 February 2013

Following a request for information that was received from Lithuania and Hungary (including a request for information form submitted by Hungary through the USIE web site), the IEC contacted the counterpart in Ukraine to inquire if the event could be confirmed and if more information on this event could be provided.

The counterpart in Ukraine confirmed the event and also advised the IEC of the web sites where further information could be obtained from the Ukrainian authorities. Working with the IAEA's Division of Public Information, the IEC prepared a press statement to be released at the request of the international media.



*Location of damage in turbine hall of Chernobyl NPP Unit 4 (Photo Credit: State Nuclear Regulatory Inspectorate of Ukraine).*



*Damaged roof of the turbine hall of Unit 4 at the Chernobyl nuclear power plant (Photo Credit: State Nuclear Regulatory Inspectorate of Ukraine).*



*Damaged wall of turbine hall of Chernobyl NPP Unit 4 - view from waterside pump station (Photo Credit: State Nuclear Regulatory Inspectorate of Ukraine).*



## IAEA Comprehensive Report on TEPCO's Fukushima Daiichi Accident

The IAEA will produce a Comprehensive Report on the accident at TEPCO's Fukushima Daiichi nuclear power plant (Fukushima accident), to be published in 2014. The aim of the report is to provide an authoritative, factual and balanced account of the Fukushima accident, its causes and consequences. The report will build on the existing worldwide knowledge of the Fukushima accident and will include a comprehensive assessment carried out by over 130 experts from Member States and international organizations. These experts are participating in five working groups dealing with a wide range of topics that include safety assessment, radiation protection, emergency preparedness and response (EPR) and decommissioning and waste management. The first meeting of the five working groups was held at the IAEA's headquarters in Vienna on 21–22 March 2013. The next meeting is scheduled on 12–14 June 2013.

## New Features Available on USIE

New features have been made available on the web portal Unified System for Information Exchange in Incidents and Emergencies (USIE).

Since the upgrade of USIE in October last year, new features have been added that allow Contact Points to perform routine administrative tasks on the system without sending a request for changes to be made to the USIE Contact Point. These new features include user management (i.e. adding new and removing old users) and contact details management (i.e. updating the primary and routine contact numbers of the organization). Users that are registered in a USIE Administrator role are able to use these new features. It is expected that each Contact Point has at least one user registered as an Administrator on USIE. A publication titled: 'Instructions and Guidance for USIE Administrators', which can be downloaded from USIE, provides further information on these new features.

In addition, since January this year users of USIE are able to view the latest status of countries' registered assistance capabilities in the IAEA Response and Assistance Network (RANET). This new feature is intended to make information on the assistance capabilities registered in RANET more easily accessible, in case a country requests assistance in an emergency. It is also intended to encourage other countries to register in RANET, in accordance with the *Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency*.

The IEC encourages Contact Points to use USIE in both international emergency response exercises (ConvEx) and national exercises. In addition, training for new staff members in Contact Point organizations can be provided using the dedicated USIE Exercise and USIE Training sites. For questions or feedback relating to USIE, please send an email to: [USIE.Contact-Point@iaea.org](mailto:USIE.Contact-Point@iaea.org).

**IAEA USIE** Unified System for Information Exchange in Incidents and Emergencies

Home Events Address Book **RANET** Documents Links

**RANET**

**About RANET**

**RANET**  
IAEA Response and Assistance Network

The Parties to the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (the Assistance Convention) have undertaken to cooperate between themselves and with the IAEA to facilitate the prompt provision of assistance in the case of a nuclear accident or radiological emergency, in order to mitigate its consequences.

In September 2000 the General Conference of the IAEA in resolution GC (44)/RES/16: "encouraged Member States to implement instruments for improving their response, in particular their contribution to international response, to nuclear or radiological emergencies as well as to participate actively in the process of strengthening international, national and regional capabilities for responding to nuclear or radiological emergencies and to make those capabilities more consistent and coherent."

The Secretariat, as part of the IAEA's strategy for supporting the practical implementation of the Assistance Convention, established in 2000 a global Emergency Response Network (ERNET) of teams suitably qualified to respond rapidly and, in principle, on a regional basis, to nuclear or radiological emergencies. Since that time, the network has grown and evolved into the Response and Assistance Network (RANET).

RANET provides a compatible and integrated system for the provision of international assistance to minimise the actual or potential radiological consequences of an incident or emergency for health, environment and property. It also facilitates the provision of advice and assistance to Competent Authorities (CAs) on on-site response activities to mitigate the impact of emergencies at nuclear facilities. RANET facilitates response to specific requests for assistance in accordance with the Assistance Convention and also applies to nuclear and radiological incidents. RANET does not affect the co-operation arrangements defined in any bilateral and/or multilateral agreements between States.

The aim of RANET is to facilitate:

- The provision of requested international assistance;
- The harmonization of emergency assistance capabilities; and
- The relevant exchange of information and feedback of experience.

Assistance through RANET may be provided for:

- Nuclear accidents or radiological emergencies in the context of the Early Notification and Assistance Conventions,
- Nuclear or radiological incidents,
- Radiological consequences that exceed a State's response capabilities.

**How to Register**

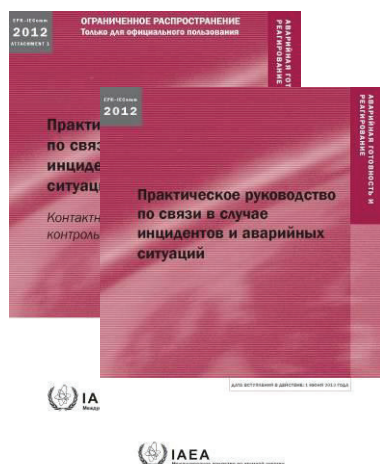
The relevant Competent Authority of Parties wishing to register their National Assistance Capabilities (NAC) in RANET should:

1. Review the EPR-RANET document.
2. Identify the capabilities including the expertise and resources that they possess.
3. Download and complete the RANET Registration forms from USIE.
4. You may send an advance copy of the registration form to the IEC for review.
5. Submit application for registration the official channels: Ministry of Foreign Affairs or the Permanent Mission to the IAEA.

[Get Registration Form](#)

Screen shot of the RANET page on the USIE web site.

# New Russian Versions of EPR Publications



The publication EPR-IEComm 2012 and its Attachment 1 are now available in Russian. While the main document EPR-IEComm in Russian is publicly available at

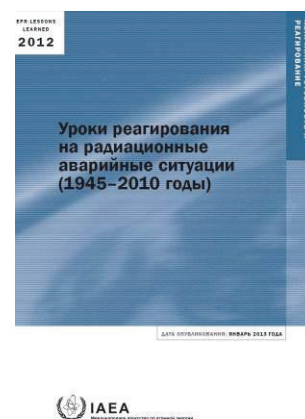
[http://www-pub.iaea.org/MTCD/Publications/PDF/EPR\\_2012-R\\_IEC\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/EPR_2012-R_IEC_web.pdf).

Attachment 1 in Russian, due to its restricted distribution, is only accessible on USIE.

The publication EPR-Lessons Learned 2012 is also now available in Russian. It provides a review of the lessons from the response to both nuclear and radiological emergencies and other emergency situations that took place between 1945 and

2010. [http://www-pub.iaea.org/MTCD/Publications/PDF/EPR-Les-](http://www-pub.iaea.org/MTCD/Publications/PDF/EPR-Les-sons%20learned%202012r_web.pdf)

[sons%20learned%202012r\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/EPR-Les-sons%20learned%202012r_web.pdf)



## Member State Preparedness

In assisting Member States in applying IAEA guidance in the area of emergency preparedness and response, eight training events were conducted during the first quarter of 2013 at the inter-regional, regional and national levels:

### Inter-regional level:

- Workshop on protective actions for severe reactor accidents (Austria, Vienna, 11–15 February 2013);
- Workshop on notification, reporting and requesting assistance (Austria, Vienna, 19–21 February 2013);
- Training course to train the trainers on first response to radiological emergencies (Austria, Vienna, 11–15 March 2013);
- Training course on medical response to radiation emergencies (Austria, Vienna, 18–22 March 2013).

### Regional level:

- Workshop on capacity building towards the use of guidelines for the development of required infrastructure for radiation emergencies and preparedness in the Gulf Cooperation Council (Kuwait, Kuwait City, 10–14 March 2013).

### National level:

- Training course on first response to radiological emergencies (Austria, Vienna, 21–25 January 2013);
- Training course on developing a national capability for response to a nuclear or radiological emergency (for Afghanistan) (Malaysia, Kuala Lumpur, 18–22 March 2013);

- Training course for medical response to radiation emergencies (United Arab Emirates, Abu Dhabi, 24–28 March 2013).

The IEC participated in Integrated Regulatory Review Service (IRRS) preparatory missions to the UK, 14–15 February 2013 and Pakistan, 12–14 March 2013.

In addition, the IEC participated in four expert missions and other events related to EPR, including: Low Enriched Uranium (LEU) Bank Action Plan discussions (Kazakhstan, 21–25 January 2013), Joint Meeting on Nuclear/Radiological Security for Major Public Events (United States of America, 28–30 January 2013), National Training Course for Poland Regulatory Body (Poland, 15 February 2013), and the Regional Coordination Meeting to Strengthen Capabilities for Responding to Radiation Emergencies in the Latin America Region (project RLA/9/074) (Mexico, 25 February–1 March 2013).

## Upcoming Activities

Information about upcoming activities for Member State emergency preparedness is available on the online calendar of events: <http://www-ns.iaea.org/meetings/default.asp?tme=er&s=10&l=79>

Beyond the first quarter of 2013, the following peer review services are scheduled: Emergency Preparedness Review (EPREV) mission in Jordan and Integrated Regulatory Review Services (IRRS) missions in Bulgaria and Poland.

# Workshop on Actions to Protect the Public in an Emergency due to Severe Conditions at NPP

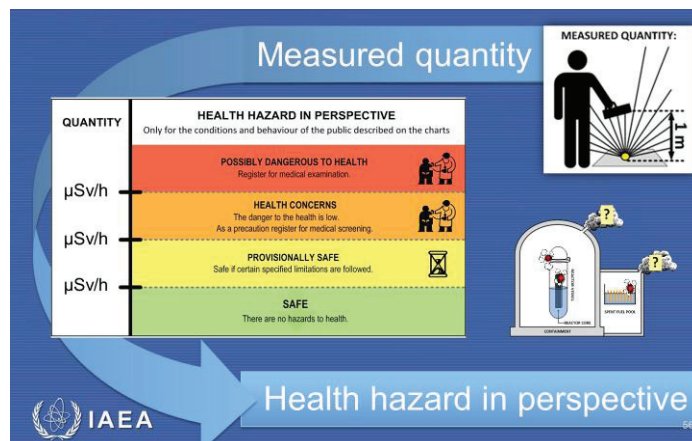
The IEC hosted a regional workshop in Vienna on 11–15 February for countries with nuclear power plants or located near nuclear power plants, for training on developing an adequate capability for protecting the public in the event of a severe accident at a nuclear power plant or spent fuel pool, based on guidance and tools developed by the IAEA. It was attended by approximately 40 participants from 15 different Member States.

The workshop focused on the use of the upcoming EPR-series publication *Actions to Protect the Public in an Emergency due to Severe Conditions at a Light Water Reactor* (EPR-NPP Public Protective Actions, 2013). Feedback received from participants of the March 2012 pilot workshop was reflected in the updated training materials used in this workshop.

The workshop addressed actions to be taken to protect the public based on plant conditions before or shortly after a release of radioactive material. It also addressed Operational Intervention levels (OILs) that can be applied immediately during an emergency to determine if protective actions are needed, based on measurements taken after a release.

In addition, participants learned how to use tools to communicate the radiological health hazard to the public. These tools are in the form of charts showing measurable quantities such as ambient dose rate ( $\mu\text{Sv/h}$ ) and concentrations of radioactive material in food ( $\text{Bq/kg}$ ).

The charts provide a comparative perspective of the potential health effects of radiation that can easily be communicated to the public and answer key questions asked during emergencies, such as "Am I safe?" and "What do I need to do to protect myself and family?"



System for placing in perspective the radiological health hazard for communication with the public.

The IEC offers this workshop at the national level when requested by a Member State. In addition, the IEC will be hosting a train the trainers workshop on the same topic in the summer. The publication EPR-NPP Public Protective Actions, 2013 and associated training materials will be available from the IAEA's web site later this year and are planned to be translated into official UN languages.

## Workshop at PIME 2013

This year saw the annual conference on Public Information Materials Exchange (PIME) celebrate its 25th anniversary, 17-20 February in Zurich, Switzerland. PIME is the annual forum for professional nuclear communicators from industry and research communities from around the world. IEC Outreach Officer, Lisa Berthelot, facilitated a workshop on "Steering your way through a crisis" in which participants played in a tabletop exercise focussing on the public communications activities that would be necessary in a nuclear or radiological emergency.

Joining Lisa Berthelot, IEC Outreach Officer, in leading this workshop was Vasiliki Tafil, International Relations Office of the Greek Atomic Energy Commission.



Participants of the workshop on "Steering your way through a crisis," facilitated by the IEC at PIME 2013 (Photo Credit: ENS PIME2013).



More information on PIME can be found at <http://www.euronuclear.org/events/pime/>

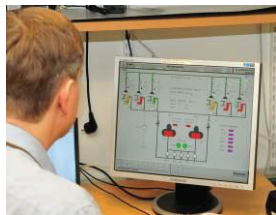


# Multinational Exercise Hosted by Finland

**Information contributed by Ms. Hannele AALTONEN, Head of Emergency Preparedness, STUK - Radiation and Nuclear Safety Authority, Finland**

Even though the probability of a serious nuclear or radiological emergency is extremely low, the possibility of a serious accident cannot be totally excluded. A serious nuclear or radiological emergency would have direct or indirect effects to all countries irrespective of geographical distance. Therefore, it is important to have efficient international emergency response arrangements for communication, cooperation and coordination of actions between States and it is equally important that those arrangements are tested in emergency exercises.

To test the international arrangements in the Nordic-Baltic region, a joint exercise was arranged with the initiative for the exercise coming from the political level and with strong political support as shown in the meeting of the Foreign Ministers of Finland, Sweden, Norway, Denmark, Iceland, Estonia, Latvia and Lithuania. Finland volunteered to host the exercise and the Russian Federation was invited to take part as per the bilateral agreements between Finland and the Russian Federation.



Location of the scenario for the exercise (left) - Loviisa Nuclear Power Plant and evaluation of the situation on-site (right).

The international exercise was combined with the Finnish full scale nuclear power plant emergency exercise held on 14 March 2013. The scenario of the accident was at Loviisa nuclear power plant, which is located approximately 80 km east of Helsinki, the capital of Finland. Real weather data was used during the exercise and the nuclear power plant provided detailed technical data. Simulated radiation measurement results following an imaginary release of radioactive material were provided to all participating countries.

In Finland, approximately 60 organizations at the national, regional and local level participated in the exercise, including representatives from the private sector. Other participating countries had many organizations involved in the exercise as well. In order to test communication through diplomatic channels, embassies of participating countries located in Helsinki took part in the exercise. The diplomatic representatives of other countries were included in the briefings during the exercise.

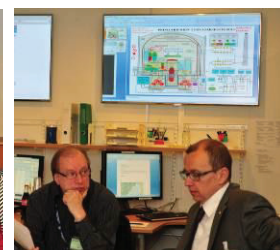
To simulate the public and social media, access was provided to all countries participating to a restricted access social media site that had been established specifically for the exercise. In addition, another platform was offered for publishing press releases, which facilitated the sharing of information that had been submitted by other countries.



Briefing of the embassies of countries participating in the exercise. Session chaired by the Under Secretary of the Ministry of Foreign Affairs. Briefing given by STUK's Director General and Director of the Ministry of the

Interior, who participated in the exercise.

The arrangements established for emergencies were tested during the exercise, including: the use of emergency communications between Nordic and Baltic countries and the coordination of actions (e.g. advice for travelling to Finland). The National Competent Authority of Finland - the Radiation and Nuclear Safety Authority (STUK) - provided information to participating countries about the on-site situation, estimate of development, releases, potential hazard area and protective measures decided in Finland. This information was also published on the IAEA's USIE Exercise web site. Altogether 15 reports were issued internationally, including INES scale reports.



STUK's emergency response organization (left) and STUK's management (right).

The exercise was very useful, providing experiences on international cooperation and requirements of information flow during a nuclear power plant accident. Based on the experiences of the exercise, the radiation and nuclear safety authorities of the Nordic and Baltic countries will produce a joint evaluation report that includes recommendations for developing and improving further both our capabilities and the cooperation, communication and emergency arrangements for nuclear or radiological emergencies.

# First Full Response Mode Exercise of 2013

The Incident and Emergency Centre (IEC) conducted its first Full Response Mode exercise of 2013 on 21 March. Thirty IAEA staff from fourteen different organizational units of the Agency were involved in the exercise. The IEC staff participated as players, controllers and evaluators. They also staffed the simulation cell that was used to represent the participation of international organizations and Member States in the exercise.



*IAEA staff participating in the exercise during the briefing held before the shift change (Photo Credit: W. Gruenwald).*

The objective of this exercise was to evaluate the Agency's internal procedures and processes such as internal information flow, accident assessment and prognosis and the issuing of press releases. These internal procedures and processes were tested during the exercise to ensure that the Agency is able to fulfil its response roles for a radiation incident or emergency, which include:

- Notification and official exchange of information;
- Provision of assistance on request;
- Assessment of potential emergency consequences and prognosis of possible emergency progression;

- Provision of timely, clear, correct and easily understandable information to the media and public; and
- Coordination of the inter-Agency response.

The exercise also helped to identify where additional training and guidance for the participants of the IAEA's Incident and Emergency System (IES) is needed. The scenario of the exercise was an accident at a nuclear power plant. It was held in two shifts from 09:00–11:15 and 10:45–13:00, with a joint briefing of all participants from both shifts held at 11:00.

Pat Kenny, the Emergency Response Manager (ERM) on duty during the second shift stated: "I was impressed by how quickly individuals who had recently been trained for the first time in the Incident and Emergency System were able to work as part of the team." The Agency's Incident and Emergency System (IES) is in place to ensure that the Secretariat is prepared to respond to any situation that may have actual or potential radiological consequences to health, property or the environment and which would require the IAEA's involvement.

Member States are encouraged to inform the IEC at an early stage in the preparation of their national exercises, specifically when planning to test reporting arrangements on the USIE Exercise site. The IEC will work directly with Member States to agree on the scope of the IEC's involvement in a national exercise (e.g. from basic posting of messages on the USIE Exercise site to a simulated activation of the IEC to full response mode, as was the case in the exercise described above). For further information, please email [iec3@iaea.org](mailto:iec3@iaea.org).

## Member State Activities

Competent Authorities: you have the opportunity to share your noteworthy news in the the IEC Newsletter. Please send brief updates on emergency exercises, new publications, developments in emergency preparedness and response, or other activities to [l.berthelot@iaea.org](mailto:l.berthelot@iaea.org) for inclusion in the next issue.

## IEC News

The IEC welcomes Monika Kubiec-Dobosz (Poland) and Andrea Santoyo Galvan (Mexico) as team assistants.




We hope you have enjoyed following the history of emergency preparedness and response activities at the IAEA in the IEC Newsletter. This quarter, we look at the years 2004 to 2011, which is the final segment in our timeline series.



**2004**



*International Action Plan for Strengthening the International Preparedness and Response System for Nuclear and Radiological Emergencies approved by the Board of Governors*



**2005**



**INCIDENT AND EMERGENCY CENTRE (IEC) established**



**2006**



**IEC moves to B-08**  
(new premises specifically designed as operational centre)



**2007**



*Response Plan for Incidents and Emergencies (EPR-REPLIE 2007) published (in-house emergency response plan that replaces NAREAP)*







**2011**

**Fukushima accident**



**IEC operates in full response mode for 54 days; 230 staff throughout the IAEA volunteer for shift work and serve in the IEC**



**Unified System for Information Exchange in Incidents and Emergencies (USIE) web site operational (replaces ENAC and NEWS)**



## Impressum

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### EDITORIAL NOTE

This Newsletter 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 Conventions on Early Notification and Assistance, 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 newsletter, neither the IAEA Secretariat nor its Member States assume any responsibility for consequences that may arise from its use.