

Department of Nuclear Safety and Security

IEC

**INCIDENT AND EMERGENCY
CENTRE**



IAEA

International Atomic Energy Agency

IEC - Mission Statement

Global Focal Point

for

**International Preparedness,
Communication and Response**

for

**Nuclear and Radiological Safety or
Security Related Incidents,
Emergencies, Threats or Events of
Media Interest**



Current Organizational Structure as of 2005

Department of Nuclear Safety and Security



IEC – Rationale - Why are we needed

TODAY'S WORLD:

➔ Expansion of use of nuclear power and use of radiation sources

➔ 21st century threats

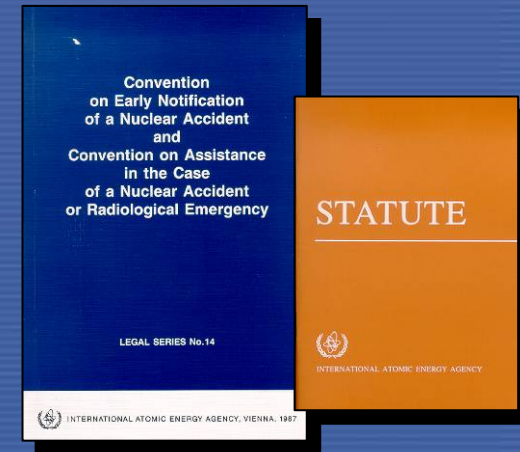


➔ Treaty obligations

IEC – Rationale - Why are we needed

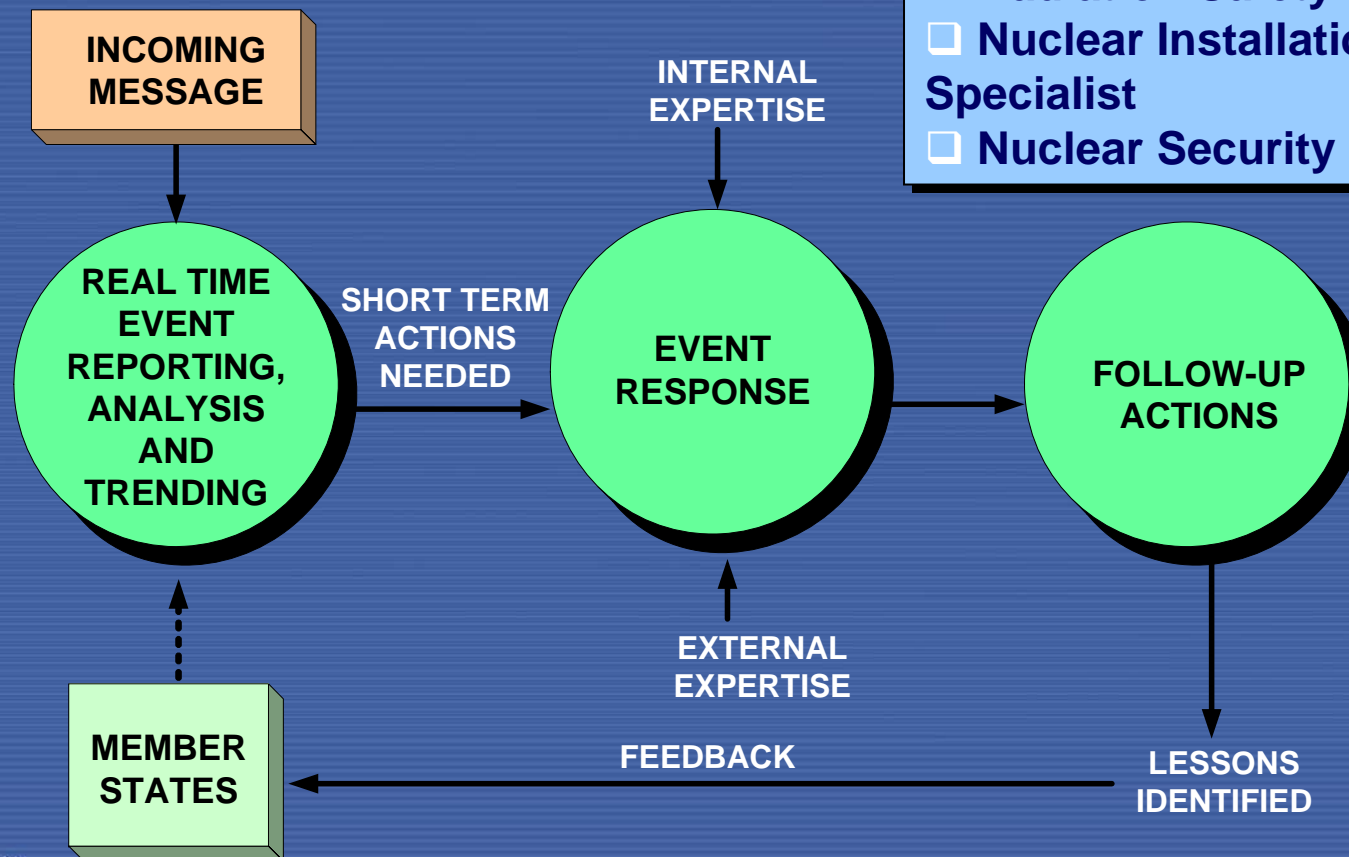
IEC Activities based on:

- IAEA Statute
- Convention on Early Notification of a Nuclear Accident
- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
- Convention on Physical Protection of Nuclear Material



IEC – Flow of Response

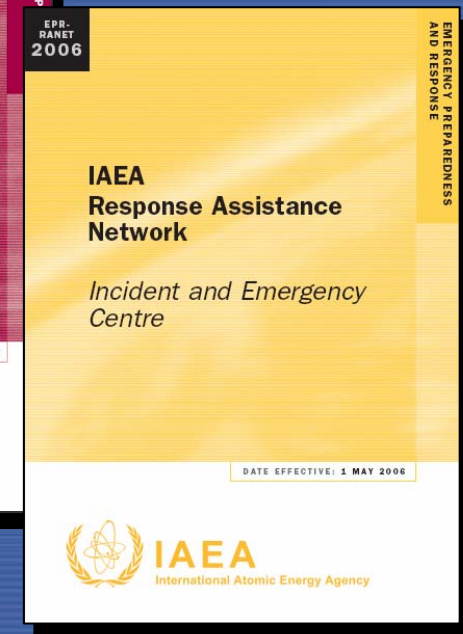
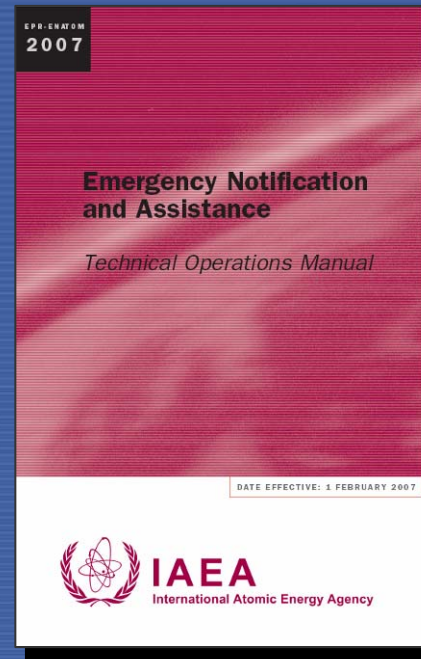
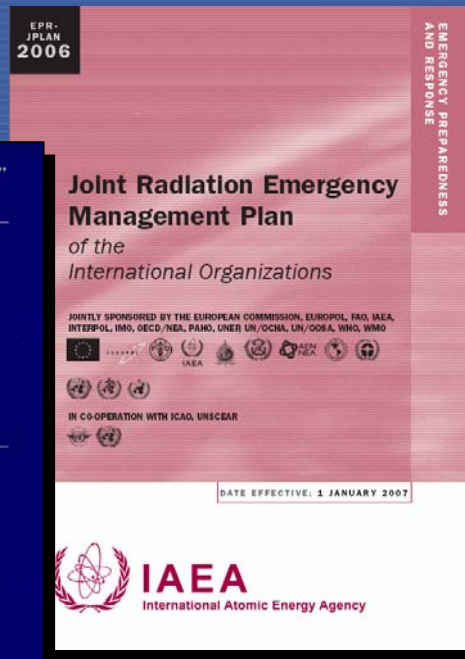
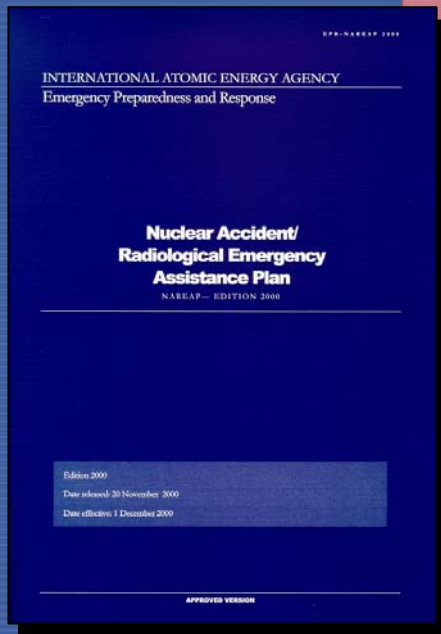
24/7 Coverage



- ON CALL:**
- Emergency Response Manager
 - Logistics Support Officer
 - Radiation Safety Specialist
 - Nuclear Installation Safety Specialist
 - Nuclear Security Specialist

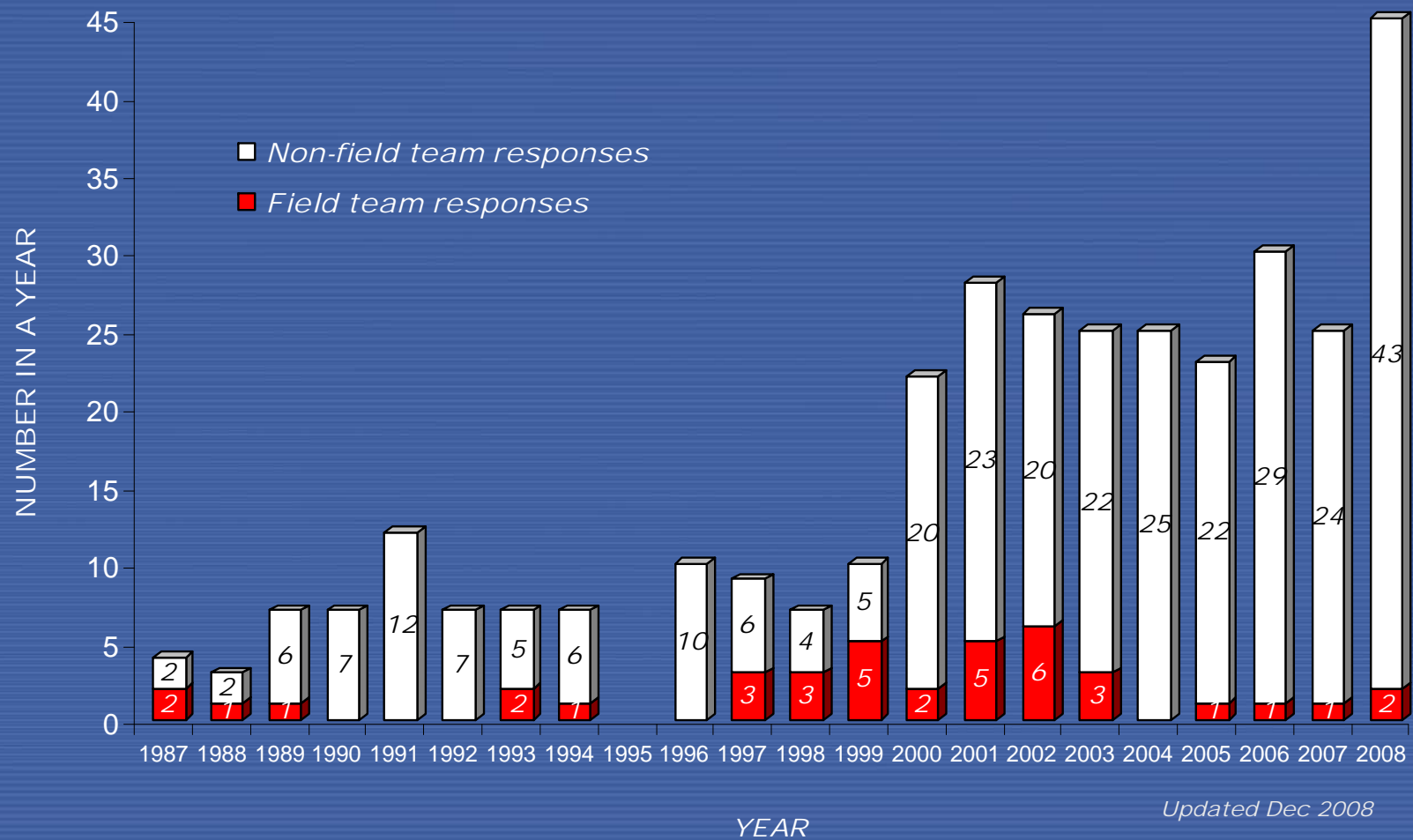
Response Plans and Protocols

We follow procedures as agreed to MS:



IEC
Incident and Emergency Centre

IEC - Responses



Assistance Mission Chile 2005



**Radiological
Accident
Coordination of
medical assistance
and dose
reconstruction**



Assistance Mission Venezuela 2006



Recovery of Radiation Source

Assistance Mission Benin, 2008

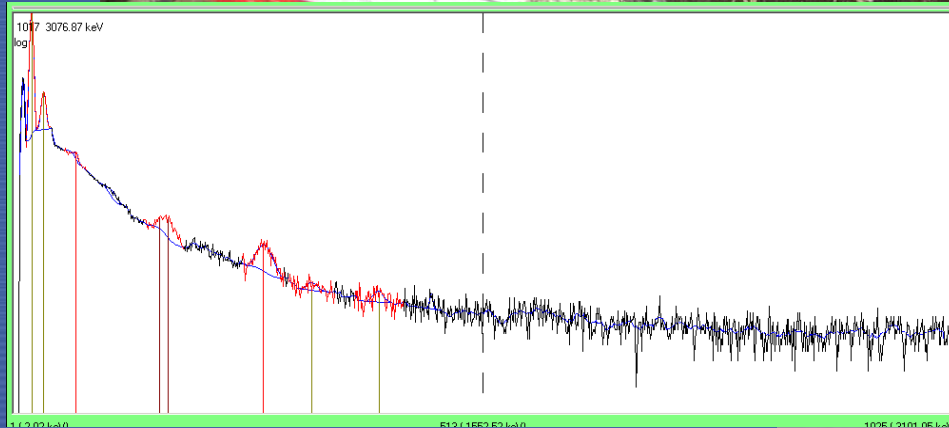


Assistance Mission Benin, 2008

found source



AMNV.340 TN model 5020



Assistance Mission Tunisia, 2008



Fact Finding Mission - Tokaimura Japan, September 1999



Criticality Accident
INES Rating: 4
Casualties: 3
No major off-site release

Assistance Mission - Sarov Russia, September 1997

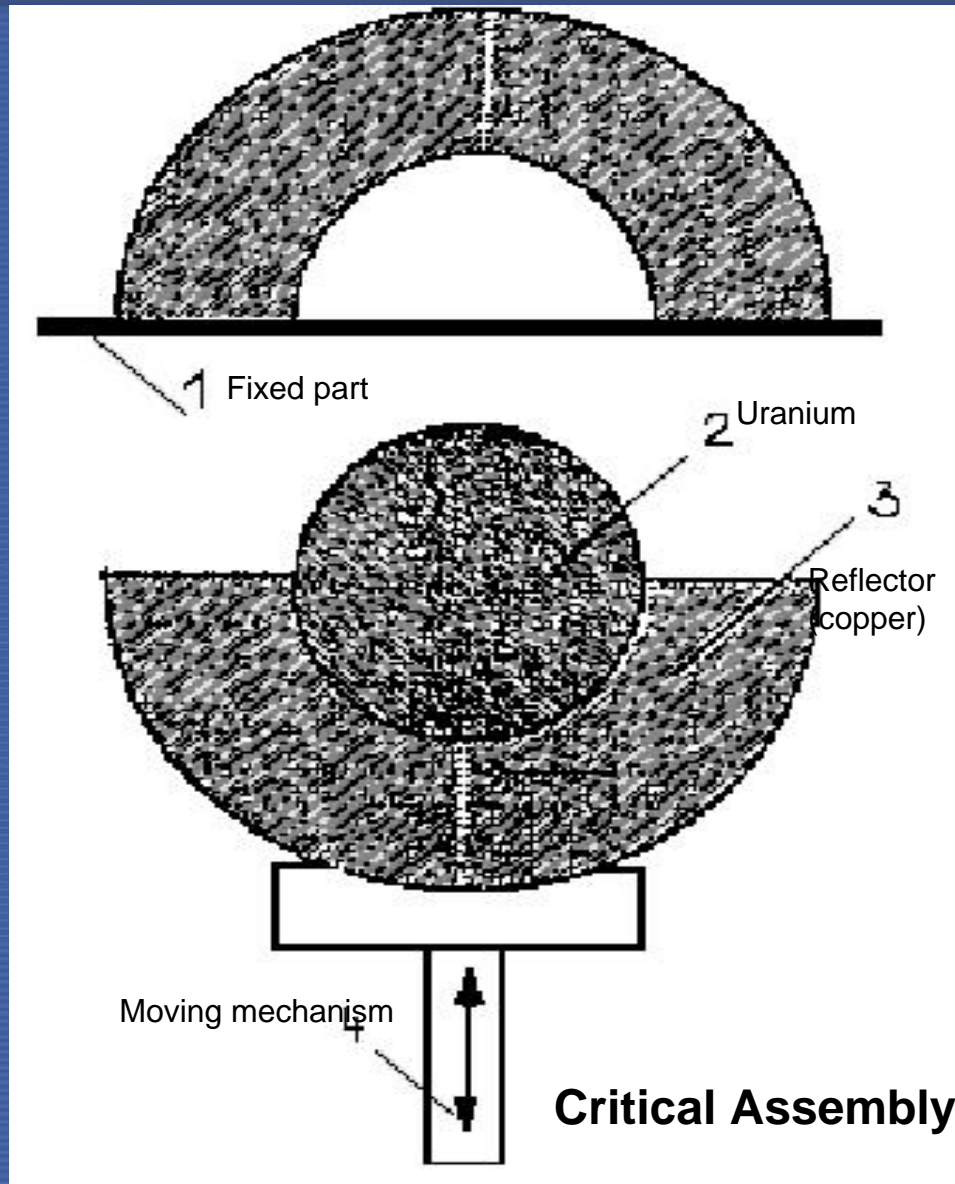


Photo 3
Right hand of the victim 50 hours after the explosion

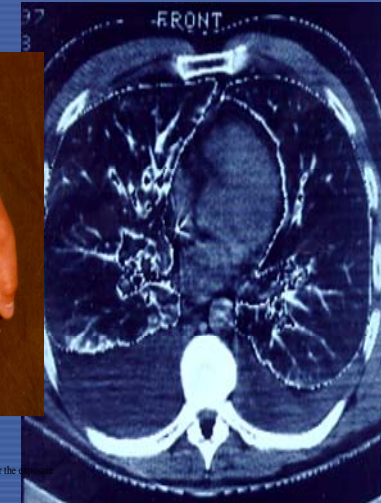


Photo 5. Computer tomographic image of the thorax at the level of Th-10
Note compression of the lung by pleural fluid and intensification of the lung pattern.

Criticality Accident

Casualties: 1 (dead within 3 days)

High neutron radiation dose

Expert Mission - Paks NPP Hungary, April 2003



Fuel Cleaning Accident

INES Rating: 3



Emergency notification – ENATOM/ENAC Forsmark NPP, Sweden, March 2007

ENAC
Emergency Notification and Assistance Convention

Current User: 20000008
IEC Status: Normal/Ready
Date/Time (UTC): 2007-03-11 15:06

IAEA
International Atomic Energy Agency

Emergencies | Submitted Messages | My Tasks | Documents | External Links | Address Book | Help | Logc

Emergencies

This page displays a list of emergencies and provides a facility to filter and find one(s) of interest.

Find Emergencies

To find other emergencies, specify criteria and click the *Find* button.

Status: Terminated
Country: Sweden
Type: Actual **Find**

List of Emergencies

List of **Actual** emergencies for **Sweden** with **Terminated** status(es)

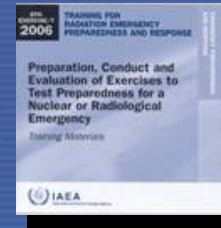
State	Emergency	Last Update	Status	Action
Sweden	Bomb threat against Forsmark NPP	2007-04-13 05:40	Terminated	View Status



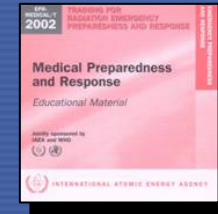
**Bomb threat against
Forsmark NPP – IEC set to
Basic Response Mode**

**21 March 2007,
07:30 hrs UTC**

Standards, Guidance and Tools for Strengthening States' Preparedness



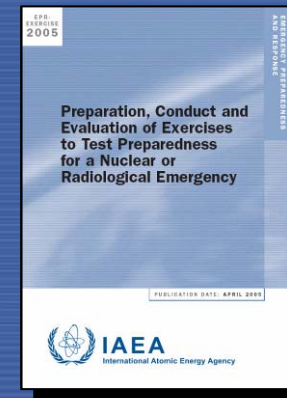
Exercise-TM, 2006



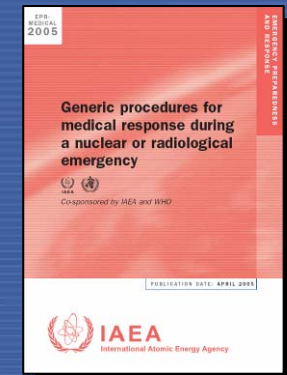
Medical-TM, 2002



Methods, 2003



Exercise, 2005



Medical, 2005

EPR Series

Counterparts

- ❑ Member States' Competent Authorities
- ❑ Regulatory Bodies
- ❑ Emergency Planners
- ❑ Emergency Managers
- ❑ First Responders
- ❑ Radiological Assessors
- ❑ Medical Community



Incident

Training on Emergency Monitoring in Chernobyl Exclusion Zone



ConvEx-3 Mexico, 2008



First Responders Manual Exercise




**RDD Exercise in Indonesia using
FIRST RESPONDER MANUAL
(IAEA, 2005)**



Emergency Preparedness Review

EPREV missions

- Indonesia 2004
- Peru 2005 (PAHO)
- Qatar 2006
- Egypt 2007
- Russia 2007
- Tajikistan 2007
- Uzbekistan 2008
- Tunisia 2008
- Montenegro 2008
- Kyrgyzstan 2008




International Atomic Energy Agency

EPREV

**EMERGENCY PREPAREDNESS
REVIEW**

WHAT IS AN EPREV?

A service provided by the **INTERNATIONAL ATOMIC ENERGY AGENCY** to appraise preparedness for nuclear and/or radiological emergencies in Member States.



The EPREV concept

While each Member State is responsible for conducting a periodic appraisal of its emergency preparedness and response capabilities, the IAEA can also conduct, at the request of the Member State, an *independent Emergency Preparedness Review (EPREV)*.

Emergency Preparedness Review

□ EPREV missions

- Indonesia 2004
- Qatar 2006
- Egypt 2007

□ EPREV missions on assessment of medical capabilities for response

- Peru 2005 (performed by PAHO)



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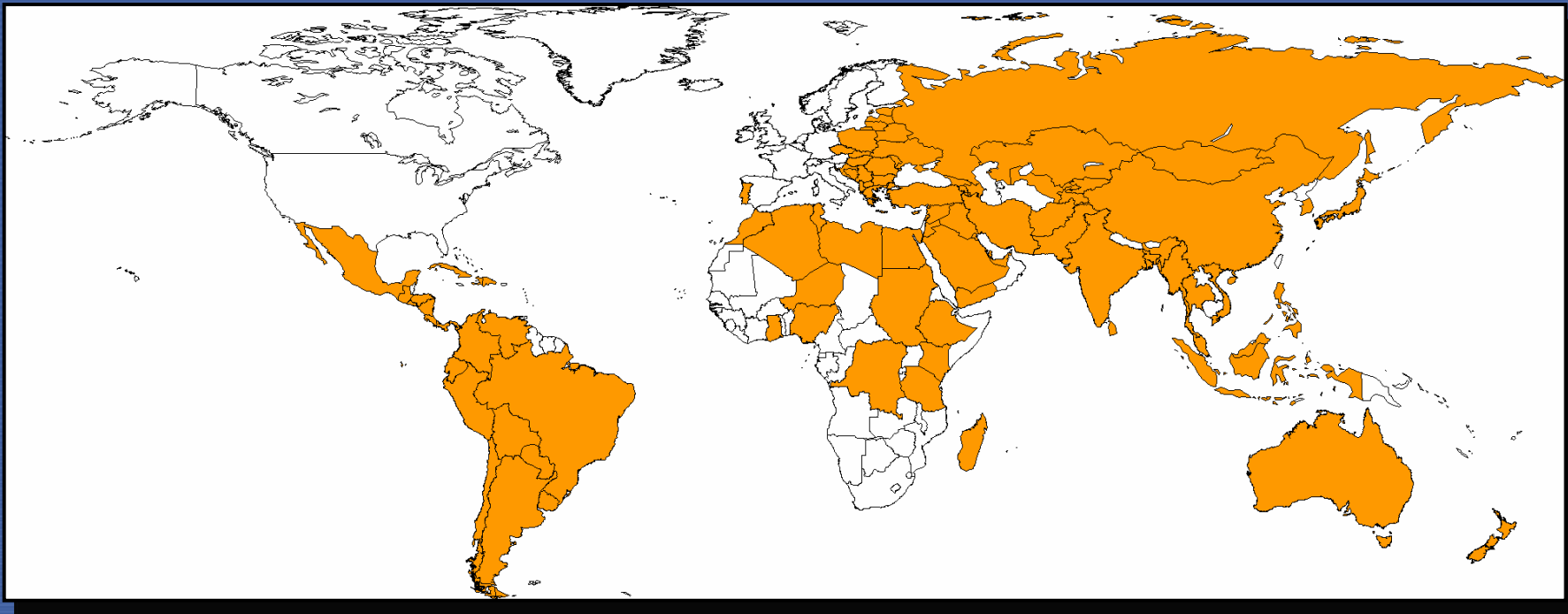


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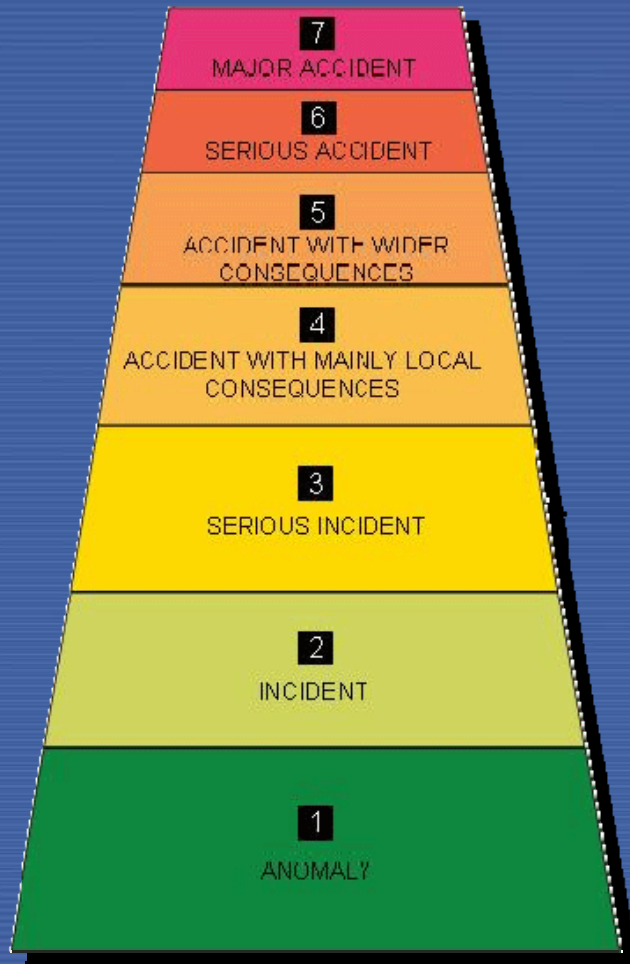
Trained Countries in the Area of EP&R



 IAEA Trained

Trained Specialists in the Area of EP&R (06.1997 – 12.2008): 6120

IEC – Incident Reporting



INES

Methodology for communicating the safety significance of events applicable to all types of nuclear and radiological events

- At nuclear facilities
- Involving radiation sources
- During transport of radioactive material

G8 Summit



“At previous summits, we agreed to enhance global controls on nuclear and radioactive materials and facilities in order to minimize the risk of the malicious use of these materials and facilities. We are implementing those decisions. **However, we recognize that we must also enhance as necessary our ability to effectively respond to nuclear and radiological accidents and incidents if they do occur. We welcome the establishment of the IAEA Incident and Emergency Centre and will support the IAEA in this work.**”

G8 Summit documents - New: Chair's summary

- Declaration on trade (17.4 KB)
- Report on the Nuclear Safety and Security Group (36 KB)
- Report on the G8 Support to the UN Counter-Terrorism Efforts (25.9 KB)

Future Directions

- Harmonize reporting mechanisms
- Focus on security response capabilities (limited by availability of resources)
- Increase Member State preparedness (Action Plan)
- Increase outreach effort ensuring Member States are aware of IEC capabilities and services