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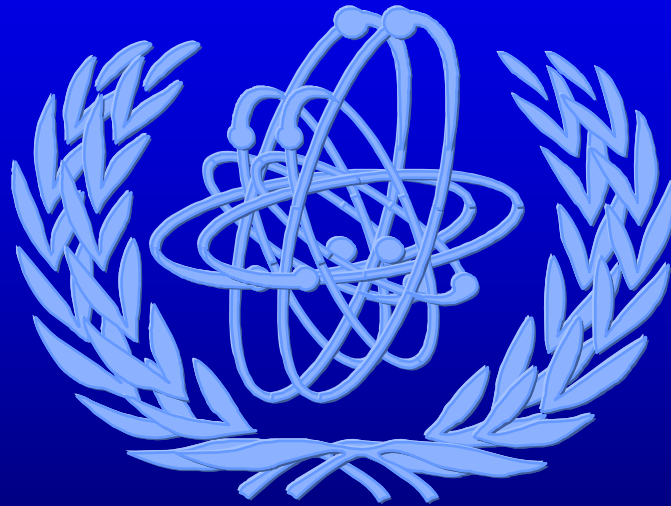
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Emergency Assistance



Capabilities of Emergency Response Centre at IAEA

Lecture

Introduction

- **Specific emergency preparedness and response roles and functions are placed on the IAEA by its Statute and Notification and Assistance Conventions**
- **The objective of this lecture is to present these roles and functions in general and more specifically explain them for IAEA Emergency Response Centre (ERC)**

Content

- **Background to IAEA**
- **Emergency Preparedness and Response Unit**
 - **Authorities, roles and responsibilities**
 - **Basis for response and preparedness**
 - **Concept of operations**
- **Assistance that can be provided**
- **Lessons learned**
- **Summary**

IAEA Statutory Functions

- **Establish safety standards**
- **Assist States in the applications of standards**
- **Functions indicated by the Conventions**
 - **Notification**
 - **Provide assistance**

Legally Binding Conventions on Response Supported by IAEA

- **Early notification of a nuclear accident**
- **Assistance in the case of a nuclear accident or radiological emergency**
 - **Preparedness**
 - **Response**

Early Notification of a Nuclear Accident

- Accident state notifies IAEA
- IAEA authenticates and verifies notification
- IAEA provides notification and additional verified information to States Parties, Member States and relevant international organisations
- Liaises with accident state, affected states, other states and international organisations
- Analyses information and answers requests for information from Parties
- Frequent, accurate media releases

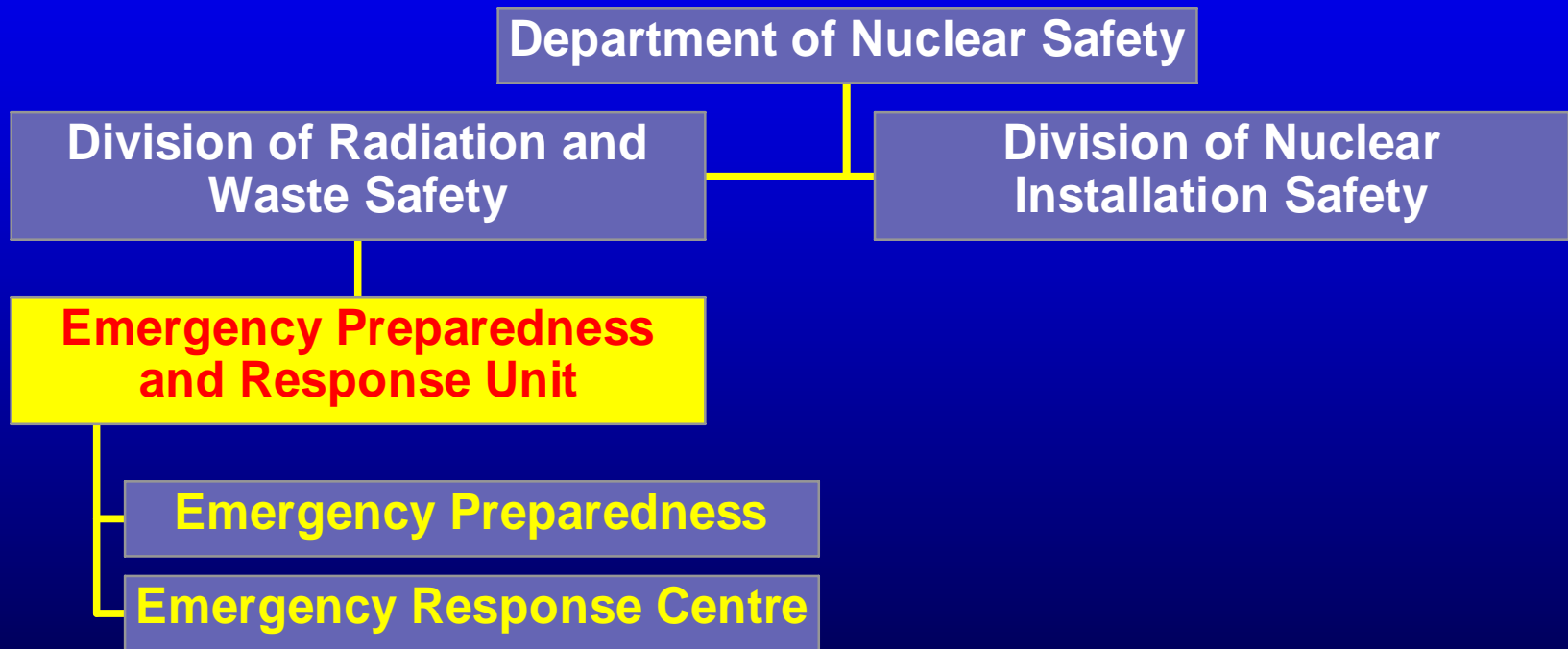
Notification

- States should promptly notify potentially affected states and IAEA of radiation emergencies:
 - **General or site area emergency**
 - **Uncontrolled movement of a dangerous source across a border**
 - **Disruption in international trade or travel**
 - **Affecting foreign nationals or embassies**
 - **A problem (e.g. in equipment or software) with internationally implications**
 - **Resulting in significant psychological effects in other States**

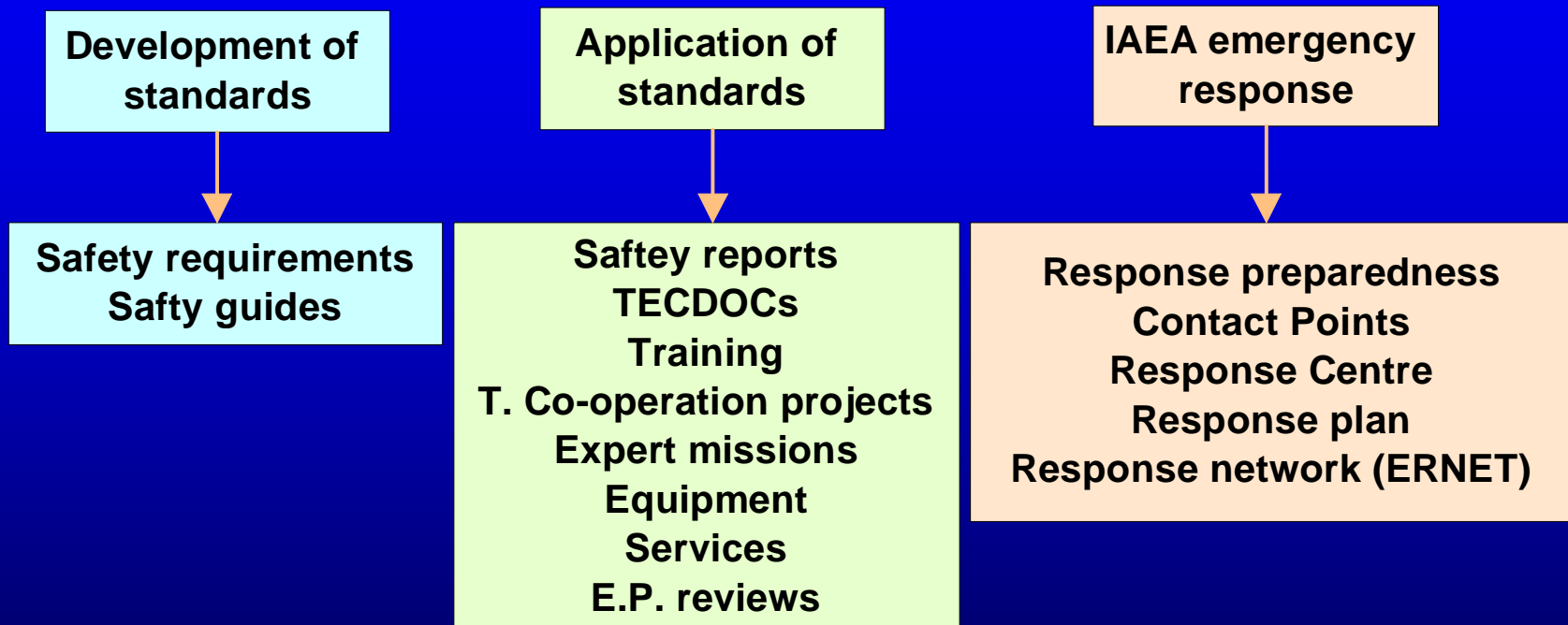
Problems with Notifications

- **Notification made by FAX in English**
 - **Notification phone numbers wrong**
 - **FAXs do not work (e.g. out of paper)**
 - **FAXs not monitored (e.g., over week end)**
 - **No English speaker**

Emergency Preparedness and Response Unit (EPRU)



Activities of EPRU



Development of Standards

- **Requirements on preparedness and response to nuclear and radiological emergencies have been finalised**

“Preparedness and Response for a Nuclear or Radiological Emergency”

- **Co-sponsored by FAO, WHO, NEA(OECD), IAEA**



New Requirements

- **International Standard**
- **Approved by March 2002 Board**
- **Hope to publish this summer**
- **Draft Available – there will be few editorial revisions**
- **Much of what applies to reactors is same as TECDOC-953**
- **All IAEA assistance (e.g., TC projects, training) - must be consistent with it!!!**
- **If you follow TECDOC-953 – you will meet Requirements**

Provisions for Applications of Requirements (Standards)

- **Technical documents and reports**
- **Standard training material**
- **Technical co-operation projects**
- **Services**



Assistance in Radiological Emergency

- **State reports problem to ERC or requests assistance**
- **IAEA**
 - **Assesses available information**
 - **Offers its good offices**
 - **Coordinates provides assistance to requesting state(s)**

Assistance in Radiological Emergency

- **Request must come from official source**
- **IAEA will confirm with mission**
- **IAEA may respond directly – send team of IAEA experts (medical, monitoring, public affairs, other experts)**
- **IAEA may ask member States if they could provide assistance – and then coordinates the delivery**
- **In many cases can not help without support of other States!!!**



Assistance in Radiological Emergency

- **Before responding IAEA will get agreement by State on terms of reference**
- **Before IAEA can respond need help:**
 - **Counterpart – English speaking if possible**
 - **Logistics at location**
 - **Visa - security clearance (UN)**

Emergency Response Network - ERNET

- Major objectives
 - Strengthen IAEA's and international capability to provide assistance in event of emergency
 - Promote emergency preparedness and response capabilities among IAEA member states
- Qualified emergency response teams from member states that:
 - Can deploy promptly
 - Provide acceptable – known level of support
 - Interface effectively



Emergency Response Network - ERNET

- **IAEA asking States to apply to have teams approved for membership in system**
- **Guidance is in “IAEA Emergency Response Network” ERNET EPR ERNET 2000**
- **Member teams will be used in event of emergency**



ERNET Field Teams

- **Aerial Survey Team (AST)**
- **Radiation Monitoring Team (RMT)**
- **Radionuclide Identification Team (RIT)**
- **Source Recovery Team (SRT)**
- **Assessment and Advisory Team (AAT)**
- **Medical Support Team (MST)**
- **Bioassay Team (BIT)**
- **Radiopathology Team (RPT)**
- **Biodosimetry Team (BDT)**

All with logistic support



Capabilities of ERC

To meet IAEA obligation under Conventions

- Can deploy notify other States in about 2 hours
- Can activate and provide assistance by phone and deal with international media in hours
- After official request have
 - Deployed a basis assessment team (management and limited monitoring and medical assessment capability) in 2 days.
 - Arranged for medical treatment in about week.
- Have
 - Emergency response fund of \$500,000
 - Standing arrangements for laboratory, dosimetry and medical services



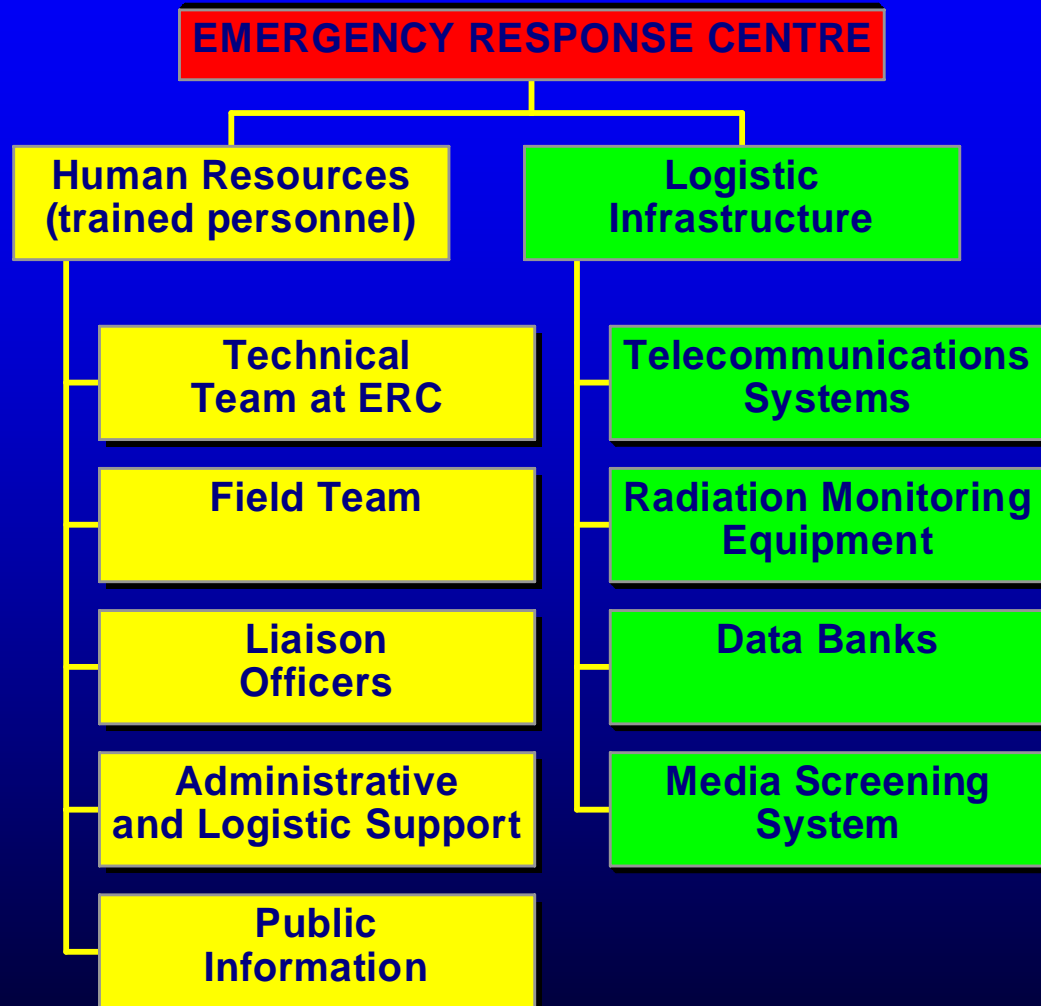
Initial Response Organization

- **24-hr contact point for notification & requests for assistance**
 - **Duty Emergency Response Manager**
 - **Duty officers**
 - ❖ **Nuclear and Radiation Safety**
 - ❖ **Logistic Support**
 - ❖ **Public Information**
 - Screen incoming information
 - Authenticate and verify
 - Decide on the ERC activation level
- **Emergency Response Center**



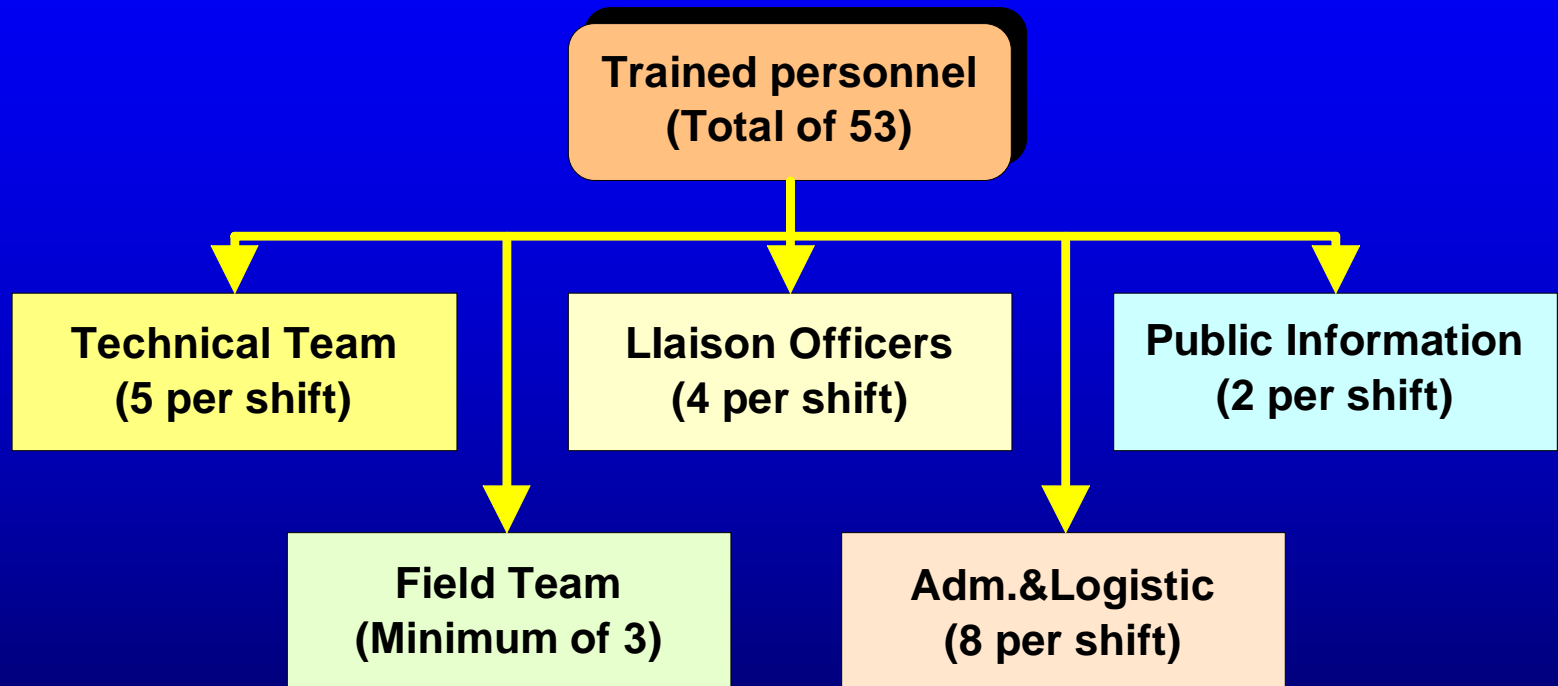
Resources and Capabilities

General



Resources and Capabilities

Staff



48 staff members from Nuclear Safety Department
5 from Public Information Division



Staff Major Duties

- **Technical assessment of information received**
- **Liaison with Member States, International Organisations and Missions**
- **Public and media liaison**
- **Sending and receiving notification/information**
- **Field operations (within 24 hrs)**
 - ❖ **ERNET (Emergency Response Network)**



Resources and Capabilities

Administrative/Logistic

- **Emergency Response Manager on duty has authority to activated as necessary the IAEA's Emergency Response System**
- **Emergency response fund of \$500,000**
- **Databases**
 - **Contact points, expertise, equipment, technical data**
- **Standing arrangements for laboratory, dosimetry and medical services**



Resources and Capabilities

Telecommunications

- **Telecommunications system which includes satellite field communications**
- **Internet capabilities**
- **Media screening systems**



Resources and Capabilities

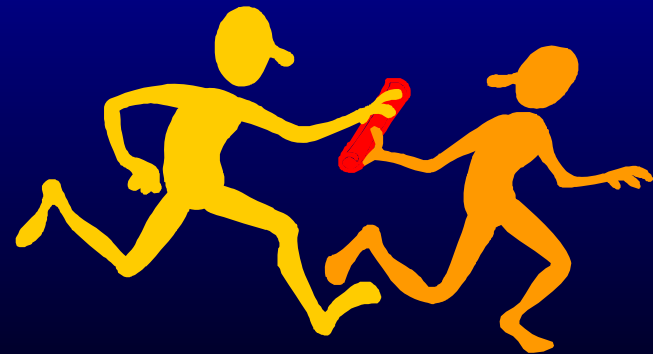
Radiation Monitoring Equipment & Supplies

- Radiation survey instruments
- Personal protection equipment
- General supplies



Training, Drills and Exercises

- All response staff regularly trained:
 - **General overview**
 - **Function-specific training**
- Standard training material tied to procedures
- Training records and programme
- Communications drills
- Exercises



Emergency Exercises

- **Assistance exercises**
 - **Radiological emergency field exercises for response assistance teams from east Asia region, China, November 1998**
- **Information exchange exercises**
 - **INEX-2 exercise in Hungary, 3 Nov/1998**
 - **INEX-2 exercise in Canada, 27-28 April/1999**
 - **Y2K transition used as exercise, Dec 1999/Jan 2000**



Examples of Assistance

- **French airborne monitoring in Georgia**



Examples of Assistance

- **Monitoring and verification**



Examples of Assistance

- Medical consultation and treatment



IAEA Emergency Assistance in 2002

- **Georgia – mission to:**
 - **Medical advice, drugs and treatment (in France and Russia)**
 - **Advice and assistance on recovery of sources**
- **Afghanistan and Uganda – missions to:**
 - **In situ verification/monitoring to ensure safety of source**
 - **Advice on storage**

Lessons Learned

- **Information from IAEA helps stem rumours (Spain and Japan)**
- **Be prepared media interest – (Georgia ALL major international news organization interested - CNN, BBC) - good response can be very helpful (Georgia) – bad response can be disastrous**
- **IAEA needs support of other States (e.g., French medical support) to met requests for assistance**



Lessons Learned

- **IAEA can alert States of potential transboundary event (mission 60Co source Turkey; contaminate steel – detected by Italy)**
- **International medical assistance can reduce suffering (Georgia, Peru, Poland...)**
- **International teams can improve confident in local officials (Georgia, Uganda)**



Summary

- **IAEA has provided tools very useful in developing an adequate response capability**
- **Early notification of IAEA can enhance confidence**
- **IAEA can provide assistance**
- **Support of IAEA requests for assistance is essential**
- **Effective use of these international capabilities requires some preparations**

Where to Get More Information

- On the following web addresses and links there

<http://www.iaea.or.at/>

<http://www.iaea.org/ns/>

<http://www.iaea.org/worldatom/>

<http://www.iaea.at/worldatom/>

