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EPR-NAREAP 2000

INTERNATIONAL ATOMIC ENERGY AGENCY

Emergency Preparedness and Response

**Nuclear Accident/
Radiological Emergency
Assistance Plan**

NAREAP— EDITION 2000

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Foreword

by the Deputy Director General Nuclear Safety

The International Atomic Energy Agency (the Agency) was established in 1957. Its principal objective is “to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world”. The Agency is specifically authorized under the terms of its Statute to establish standards of safety for protection of health and minimization of danger to life and property, in collaboration with the United Nations (UN) and specialized agencies concerned.

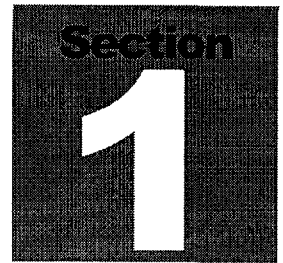
The *Convention on Early Notification of a Nuclear Accident* (hereinafter the ‘Early Notification Convention’), which entered into force on 23 October 1986, and the *Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency* (hereinafter the ‘Assistance Convention’), which entered into force on 26 February 1987, place specific obligations on the States Parties to them as well as conferring obligations on the Agency. To fulfil these obligations the Agency must be prepared to respond appropriately, efficiently and quickly to any nuclear accident or radiological emergency that has the potential to pose a hazard to public health or the environment.

The aim of this Emergency Response Plan is to define the objectives of the Agency Secretariat’s emergency response to a nuclear accident or a radiological emergency and to assign authorities and responsibilities for making decisions and performing emergency tasks.

This Emergency Response Plan does not cover emergency operating procedures to control the consequences of accidents at Agency facilities.

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1. Introduction

1.1. Purpose

The purpose of the Nuclear Accident/Radiological Emergency Assistance Plan (NAREAP) is to describe the framework for systematic, integrated, co-ordinated, and effective preparedness and response for a nuclear accident or radiological emergency involving facilities or practices that may give rise to a threat to health, the environment or property.

The purpose of the NAREAP is:

1. To define the emergency response objectives of the Agency's staff in a nuclear accident or a radiological emergency;
2. To assign responsibilities for performing the tasks and authorities for making the decisions that comprise the Agency staff's response to a nuclear accident or radiological emergency;
3. To guide the Agency managers who must ensure that all necessary tasks are given the necessary support in discharging the Agency staff's responsibilities and fulfilling its obligations in response to an emergency;
4. To ensure that the development and maintenance of detailed and coherent response procedures are well founded;
5. To act as a point of reference for individual Agency staff members on their responsibilities (as an individual or a team member) throughout a response;
6. To identify interrelationships with other international intergovernmental Organizations; and
7. To serve as a training aid to maintain readiness of personnel.

1.2. Scope

The NAREAP refers to the arrangements of the International Atomic Energy Agency and of the United Nations Security and Safety Section at the Vienna International Centre (UNSSS-VIC) that may be necessary for the IAEA to respond to a nuclear

accident or radiological emergency, as defined in the Early Notification and Assistance Conventions. It covers response arrangements for any situation that may have actual, potential or perceived radiological consequences and that could require a response from the IAEA, as well as the arrangements for developing, maintaining and exercising preparedness.

The implementing procedures themselves are not included in the NAREAP, but they are required as an operational and adaptable tool to support the plan.

The on-site emergency plan for Agency owned or operated facilities is an important component of the Agency's emergency preparedness. However, because the 'on-site' responsibilities of the Agency for such emergencies are significantly different from the responsibilities described under the two Conventions, the on-site emergency plan for Agency owned or operated facilities is covered in the Agency's Administrative Manual (Part X on Radiation Protection Rules and Procedures).

1.3. Relationships to other plans

The Second Edition of NAREAP supersedes all previous emergency planning and procedural documents related to the emergency response activities of the Agency's staff, in particular, its First Edition of 1988.

The application of this Plan is limited to the operations of the Agency's staff under the aforementioned 'Purpose' and 'Scope' and is not intended to influence, or be applicable to, the domestic and national emergency response obligations and responsibilities of sovereign States.

Implementing procedures themselves are not included in NAREAP; they are operational and adaptable tools to support it. Plans and procedures covered under the Joint Radiation Emergency Management Plan of the international organizations (EPR-JPLAN (1.0)) are intended to be harmonized with NAREAP.

1.4. Definitions

The following definitions apply only for the purposes of this Plan and have no legal effect:

Accident State	State, whose facilities or activities or those of persons or legal entities under whose jurisdiction or control, a nuclear accident or radiological emergency occurs or is likely to occur
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Affected State	State other than the Accident State for whom, following a nuclear accident or radiological emergency resulting in a transboundary impact, the consequences are of radiological safety significance
Notification	An official announcement by an authorized national or international competent authority providing details of a nuclear accident or radiological emergency, as required by the Convention on Early Notification of a Nuclear Accident ¹ .
Warning	An official announcement by an authorized national or international competent authority providing details of a nuclear accident or radiological emergency, without the explicit obligation to do so under the Early Notification Convention, but to preempt legitimate requests from other States for 'assistance' in obtaining information under the Assistance Convention ² .
Contact Point	A generic term for an organization, designated by a State or an international organization, that has a function in liaising with the IAEA's ERC in response to a nuclear accident or radiological emergency.
Warning Point³	A Contact Point that must be staffed or alerted 24 hours a day to immediately respond or initiate a response to an incoming facsimile or telephone communication of a notification, warning message, request for assistance or request for verification of a message as appropriate.
Competent Authority	A Contact Point that is authorized to issue a notification, warning message, request for assistance or other emergency information as appropriate, and to reply to requests for information or assistance.

¹ A State Party **must** notify the IAEA of an accident that may lead to an international transboundary impact of radiological significance for another State. Any EMERCON message sent to the IAEA by an Accident State indicating a **transboundary emergency** will be interpreted as a 'Notification'. Note that this definition is different from that provided in the International Basic Safety Standards, Safety Series No. 115.

² A State is strongly encouraged to send a warning for any emergency that: (a) may have relevance to needs in other States to initiate an administrative response and/or to provide immediate advice to governments, public or news media regarding protection issues, in general to protect health, the environment or property[?]; (b) may affect international trade or travel; (c) may warrant taking protective actions or giving advice to foreign nationals or embassies in States; (d) may result in deterministic effects involving a generic fault or problem that could have serious implications internationally; (e) may be perceived to be radiologically significant by the news media or public in another State; (f) may lead to a transboundary release and for which advance warning will allow the IAEA to meet its obligations to notify potentially Affected States forthwith should it become necessary; or (g) may otherwise be deemed by the State to warrant immediately alerting ERC staff. **Any 'EMERCON' message not marked as 'transboundary emergency' will be interpreted by the ERC as a 'Warning'.**

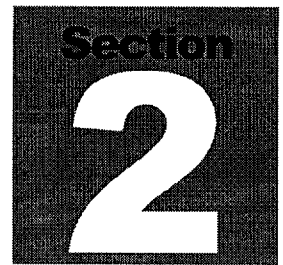
³ In the Early Notification and Assistance Conventions, the term 'Point of Contact' is used, as it was in the previous edition of the ENATOM. However the term was found to be confusing and was often misused by Parties to mean Competent Authorities. The term 'Warning Point' is used here to make it clear that this is the Contact Point that should be available 24 hours a day for receipt of a notification or warning message.

Relevant international organization	An international intergovernmental organization that, according to the information available to the IAEA, has a significant legal or statutory role and/or capability to provide advice or assistance in the event of a nuclear accident or radiological emergency ⁴ .
Authentication	The process of confirming that a message received comes from the correct and authorized source.
Verification	The process of confirming the accuracy of any received message's content.

1.5. Abbreviations

EAC	Emergency Advisory Committee
ENAC	Emergency Notification and Assistance Convention (Web-site)
ENATOM	Emergency Notification and Assistance Technical Operations Manual
ERC	Emergency Response Centre (of the IAEA)
EPR-JPLAN	Joint Radiation Emergency Management Plan of the International Organizations
ERM	Emergency Response Manager
EPRU	Emergency Preparedness and Response Unit
IAEA	International Atomic Energy Agency
ITS	Information Technology Support
MT	Department of Management (of the IAEA)
MTBF	Division of Budget and Finance (of the IAEA)
MTPI	Division of Public Information (of the IAEA)
NAREAP	Nuclear Accident/Radiological Emergency Assistance Plan
NCA	National Competent Authority
NCA(A)	National Competent Authority for an Accident Abroad
NCA(D)	National Competent Authority for a Domestic accident
NWP	National Warning Point
UNSSS	United Nations Security and Safety Section
URL	Universal Resource Locator (site on the World Wide Web)
VIC	Vienna International Centre

⁴ Such relevant organizations include the World Meteorological Organization, the World Health Organization, the Food and Agriculture Organization of the United Nations and the United Nations Office for the Co-ordination of Humanitarian Affairs.



2. The Agency's Emergency Response System

2.1. Framework

In order to meet its responsibilities under the Early Notification and Assistance Conventions, the Agency established in 1986 a 24 hour Warning Point and operational focal point in its Secretariat, the **Emergency Response Centre (ERC)**, to which States and relevant international organizations can promptly and effectively direct notification and/or warning messages or event reports, requests for emergency assistance and requests for information.. The Director General designated the ERC to serve as a centre for management and co-ordination of the Agency's response to nuclear accidents or radiological emergencies anywhere in the world. This Centre is located at the Agency's Headquarters in Vienna, Austria. It is administratively under the supervision of the Emergency Preparedness and Response Unit, Radiation Safety Section, Division of Radiation and Waste Safety of the Department of Nuclear Safety.

The ERC is the Agency's primary operational focal point for acting on a notification of a nuclear accident or radiological emergency as well as a request for emergency assistance. The expected means of communication for sending a notification and/or for requesting assistance are facsimile transmission and telephone. The United Nations Security and Safety Section (UNSSS), at the Vienna International Centre, serves as an integrated 24 hour Warning Point and telecommunications backup for the Agency's ERC. An incoming notification, warning message or request for assistance, if correctly addressed, arrives simultaneously at the UNSSS and at the ERC.

2.2. System objectives

The prime objectives of the Agency's Emergency Response System are derived from the statutory responsibilities of the Agency's as well as from functions assigned under the Early Notification and Assistance Conventions. They are:

- To inform forthwith, after being notified of an event under the terms of the Early Notification Convention, all States Parties, Member States and other States that are or may be physically affected and relevant international organizations of a notification received;

- To provide any State Party, Member State or relevant international organization promptly with the information received (consistent with confidentiality limitations);
- To co-operate with States to facilitate prompt assistance to minimize consequences and to protect health, property and the environment from the effects of radioactive releases;
- To use its best endeavours to promote, facilitate and support the co-operation between States Parties;
- To transmit promptly a request for assistance to other States and international organizations that may have the necessary resources at their disposition;
- To co-ordinate the provision of assistance at the international level, if so requested by the requesting State;
- To transmit requests for assistance and relevant information;
- To make available to a State Party or a Member State requesting assistance in the event of a nuclear accident or radiological emergency appropriate resources allocated for this purpose, including the conducting of an initial assessment of the accident or emergency;
- To offer its good offices to the States Parties and Member States in the event of a nuclear accident or radiological emergency;
- To establish and maintain liaison with relevant international organizations for the purposes of obtaining and exchanging relevant information and data, and to make a list of such organizations available to States Parties, Member States and the aforementioned organizations; and
- To provide an up-to-date list of National Competent Authorities and National Warning Points and Contact Points of relevant international organizations and to provide it to State Parties, Member States and relevant international organizations.

In addition, the Agency's ERC will:

- Authenticate and verify an unconfirmed report of a nuclear accident or radiological emergency and provide authoritative information to requesting Parties, without undue delay;
- Immediately, after receiving a warning message, inform States Parties, Member States, other States and relevant international organizations of the message received;

- Ensure that Member States' representatives are appropriately briefed on any developing situation;
- Ensure that there are timely, accurate and reliable releases of information to the news media, as appropriate, in co-ordination with other relevant international organizations; and
- Interact with relevant international organizations to co-ordinate the response of international organizations to a nuclear accident or radiological emergency or a request for assistance.

2.3. Guiding policies

2.3.1. Role of the IAEA

The Agency's emergency response and preparedness actions must be carried out in a manner consistent with the relevant international Conventions and with IAEA safety standards.

When notified of an emergency or when requested to provide assistance in response to an emergency, the Agency staff must make the best professional efforts to fulfil the Agency's obligation under the two Conventions, in due consideration of the risk to Agency staff and any Agency recruited experts who may be requested to attend at the scene of an accident, and with account taken of international legal or other restraints that there may be on the Agency's actions.

In the event of incidents of which the Agency Secretariat becomes aware and which are deemed to be of interest to the Agency or its Member States, but where no officially confirmed reports or requests have been made, the Agency Secretariat will consider 'offering its good offices' in keeping with the spirit of the Assistance Convention.

All reasonable steps will be taken to investigate rumours and to take steps to reduce the spread of any unsubstantiated information.

2.3.2. Personnel commitment

The Agency Secretariat is committed to its function during emergencies. All Agency personnel will co-operate with the emergency response organization described in the Plan to ensure a prompt and effective Agency response.

The participation of emergency response personnel in the development of procedures, preparedness and training will be recognized by the Agency as valid and essential work.

2.4. Planning basis

Emergencies of international concern

The Early Notification Convention applies in the event of any accident involving facilities or activities... "*from which a release of radioactive material occurs or is likely to occur and which has resulted or may result in an international transboundary release that could be of radiological safety significance for another State*" (Article 1). However, other emergencies may also occur that may be of international concern by virtue of their actual, potential or perceived

radiological significance for other States. These include (1) events influencing international trade and travel; (2) events warranting protective actions or provision of advice to foreign nationals or embassies in the Accident State; (3) events resulting in severe deterministic health effects involving a generic fault or problem (e.g. in equipment or software) that could have serious implications for safety internationally and (4) events perceived to be radiologically significant by the news media or the public in another State.

In the event of an 'emergency of international concern' the role of the Agency's Secretariat, by virtue of its statutory mandate and its acceptance of the functions assigned to it under the terms of both the Early Notification Convention and the Assistance Convention, is:

- primarily to seek and receive a notification or warning messages from the Accident State, and to dispatch it, as appropriate, to the Agency's Member States, Parties to these Conventions, relevant international organizations and other States (as appropriate);
- to seek, receive and dispatch additional follow-up information on the event, its consequences and necessary protective actions; and
- to offer its good offices in providing for assistance to requesting States and relevant international organizations.

If appropriate and according to the development of the emergency, the ERC will alert the Member State(s), State(s) Party(ies), International organization(s) and other State(s) to the fact that international assistance may be available and that it may be prudent to request it through the IAEA. In addition, if the accident is at a nuclear facility, the IAEA may be requested to and expected to obtain and provide information on the facility's status and on the radiological impact of the accident, and on consequent protective actions and radiological measurements taken in the Accident State or Affected States; and to interpret international standards and guidance. The IAEA may also be expected to release statements to the news media and the public regarding its actions. The IAEA may be requested by the Accident State to provide assistance, which can include the provision of relevant information, response management, medical advice, field monitoring teams and expertise in radiological assessment.

Emergencies of local concern

In the context of the Agency's Emergency Response, a local emergency is a nuclear accident or radiological emergency that is of negligible immediate international concern. This could include, for example, an emergency involving an unshielded source on an industrial site owing to which no members of the public have been or could be exposed. In such cases, the IAEA may be requested by the Accident State to provide assistance. Such assistance can include the provision of relevant information, response management, medical advice, field monitoring teams and expertise in radiological assessment.

Rumours of Nuclear Accidents or Radiological Emergencies

In addition to responding to formal notifications or warning messages about nuclear accidents or radiological emergencies, the ERC frequently becomes aware of rumours about nuclear accidents or radiological emergencies and is requested to verify the information. While the Early Notification Convention and Assistance Convention do not specifically address the response to rumours, Member States rely on the ERC to

seek, obtain and provide authoritative corroboration and information regarding such rumours.

2.5. Emergency classification

Accident at a nuclear facility

Emergency classification schemes are normally used at nuclear facilities to communicate details of the emergency rapidly to off-site bodies so that they may take or prepare to take emergency response actions immediately. For the purposes of providing **warning messages** to the IAEA and other States, three emergency classes are used, namely:

- **'Alert'** - Decreased level of safety or unknown events that warrant increased readiness or assessments.
- **'Site Area Emergency'** - Events resulting in a major decrease in the level of protection for the public or on-site personnel; and
- **'General Emergency'** - Events resulting in an actual or substantial risk of a radiological release requiring implementation of urgent protective actions off-site. This includes: actual or projected severe core damage (e.g., fuel cladding >750 °C) or measurements of doses off-site warranting urgent protective actions (e.g., dose rate > 1 mSv/h).

These classes are similar to the emergency classes used at many nuclear facilities in Member States. In addition, a **'Transboundary Emergency'**⁵ may be assigned to an event by the NCA(D) to indicate the potential for a significant transboundary release, which will be interpreted by the ERC as a **notification** under the terms of the Early Notification Convention.

Any event at a nuclear facility below the level of **'Alert'** is considered not an **emergency** but an **'Unusual Event'**. Unusual events may be reported to the IAEA's ERC, but the ERC will not take any action in response.

Radiological emergencies

For events not at nuclear facilities, four emergency conditions are used, namely:

- **'Radiological Accident'**- (1) Suspected or confirmed doses exceeding deterministic thresholds (or existence of deterministic effects); (2) potential or actual doses to the public exceeding Intervention Levels for Urgent Protective Actions; (3) potential or actual implementation of protective actions for the public due to radiation exposure or widespread contamination; (4) indication of transboundary event, such as a dangerous source⁶ or contamination found in an international shipment; (5) need for

⁵ Event that has resulted or may result in a transboundary radiological release of radioactive material leading to doses or food concentrations that approach or exceed the international guidance for implementation of protective actions or restriction of food. This would include any accident with severe core damage and a large direct (unfiltered) release to the atmosphere

⁶ Examples of 'dangerous sources' as defined here would be the following: industrial radiography and teletherapy sources; irradiators; radiothermal generators (RTG); fixed industrial gauges involving high activity sources; high dose rate (HDR) brachytherapy sources; well logging sources, and similar sources.

other States to initiate an administrative response and/or to provide advice to their governments, public, or media regarding protection issues, in general to protect health, environment or property

- **'Missing Source'**; Lost or stolen dangerous source, i.e. one⁷ that (1) if unshielded, casual possession could result in lethal deterministic effects from external exposure; (2) if unshielded, handling could result in severe injury to tissue from external exposure or (3) if ruptured, casual activities could result in lethal doses from inhalation or ingestion;
- **'Satellite Re-entry'** - A nuclear powered satellite or satellite with radioactive material that could give rise to deterministic effects after re-entry is entering or has entered the earth's atmosphere; and
- **'Elevated Radiation Levels'** - Confirmed contamination in air or high levels of radiation from event believed to come from another State — radiation levels typically at least ten times above background.

These conditions will be used by the ERC to rapidly take appropriate emergency response actions.

If any of the first three conditions could also give rise to a 'transboundary emergency' of radiological significance, States Party must notify the event to the IAEA's ERC under the terms of the Early Notification Convention. Otherwise the reporting State may send a warning message to the IAEA's ERC.

The following **would not be considered** 'dangerous sources': low dose rate (LDR) brachytherapy sources, moisture density gauges and fixed industrial gauges involving lower activity sources, and similar sources.

⁷ **Examples of 'dangerous sources'** as defined here would be the following: industrial radiography and teletherapy sources; irradiators; radiothermal generators (RTG); fixed industrial gauges involving high activity sources; high dose rate (HDR) brachytherapy sources; well logging sources, and similar sources.

The following **would not be considered** 'dangerous sources': low dose rate (LDR) brachytherapy sources, moisture density gauges and fixed industrial gauges involving lower activity sources, and similar sources.

Section
3

3. Organization and responsibilities

3.1. Emergency response structure

The IAEA Emergency Response organizational structure under full activation is shown in Figure 3.1. Most emergencies will not require full activation of the entire organization. On the basis of the nature and magnitude of the emergency, the Emergency Response Manager will determine which emergency staff to activate.

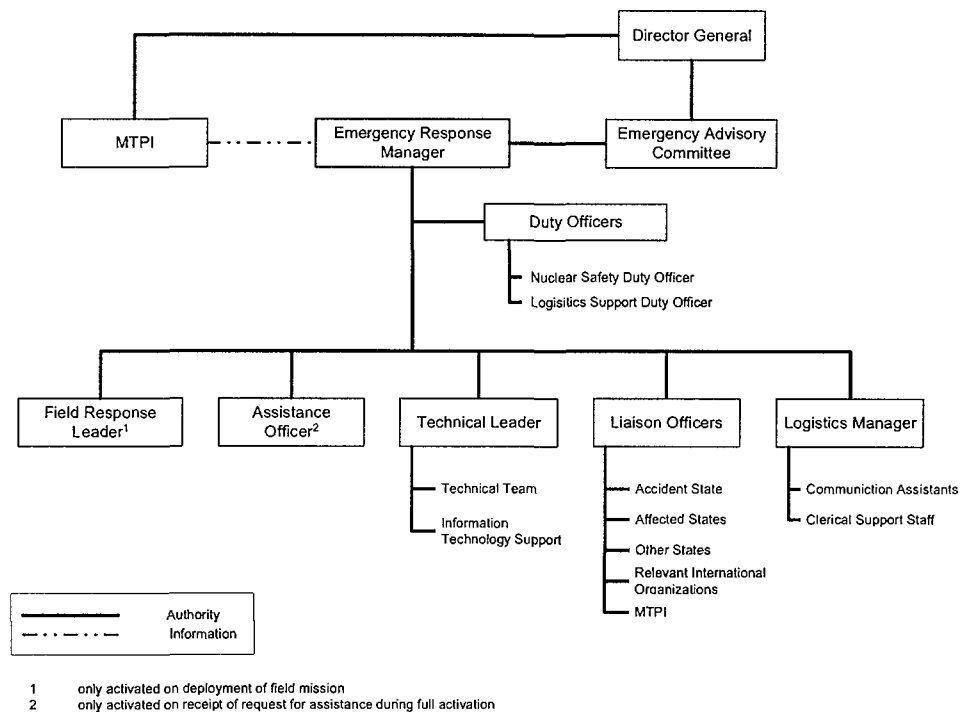


Figure 1: Emergency response structure.

3.2. Roles and responsibilities

Nuclear Safety Duty Officer

One NS Duty Officer is on duty at all times. The NS Duty Officer is selected from a pre-established list of trained NS staff members, approved by the DDG-NS.

The NS Duty Officer is responsible for:

1. acting as the main NS contact point at all times for incoming notification or information concerning a nuclear accident or radiological emergency;
2. verifying and authenticating incoming messages;
3. alerting the Emergency Response Manager, as appropriate;
4. sending, if appropriate, the initial notification to Member States and States Parties; and
5. acting as Accident State Liaison Officer during activation of the ERC.

Logistics Support Duty Officer

One LS Duty Officer is on duty at all times. The LS Duty Officer is selected from a pre-established list of trained staff members, approved by the DDG-NS.

The LS Duty Officer is responsible for assisting the duty ERM and initiating the appropriate actions for:

1. activating personnel resources;
2. making available emergency assistance funds and general financial services; and
3. ensuring that visas, security clearances and travel allowances are arranged for Agency staff members and recruited experts travelling to a State requesting emergency assistance.

Emergency Advisory Committee (EAC)

The Emergency Advisory Committee is composed of the Director NSRW; the Director NSNI (for nuclear accidents involving reactors); the NSRW Section Heads, the Head of the Emergency Preparedness and Response Unit (EPRU) and the Duty Emergency Response Manager as well as any other Agency staff member as required. The DDG-NS may also choose to attend Emergency Advisory Committee meetings.

The Head of the Emergency Advisory Committee, the Director NSRW, is responsible for making strategic decisions on the involvement and actions of the Agency Secretariat, and for briefing the DG and the DGO on the emergency actions and assessment.

The DDG-NS or the Head of EAC (DIR-NSRW) has the authority to “declare an emergency or any other activation level of the Agency’s ERC”. The Head of EAC has the authority to declare that the emergency is terminated when the situation is stable and controlled, and when normal operations can be resumed without harm.

Emergency Response Manager

One Emergency Response Manager (ERM) must be on duty at all times. Duty Emergency Response Managers are selected from a shortlist of NSRW staff, approved in advance by the DDG-NS and trained according to its functions and responsibilities.

The Duty ERM in consultation with the DIR-NSRW or the DDG-NS is authorized to declare an emergency or any other activation level of the Agency's ERC. The Duty ERM is authorized to declare an emergency or any other activation level of the Agency's ERC on his or her own initiative if neither the DIR-NSRW nor the DDG-NS can be reached for consultation.

The Duty ERM is responsible for decisions regarding the implementation of the NAREAP, including:

1. ensuring a prompt 'declaration of an emergency' and sending a copy of such a 'declaration' to MTBF;
2. declaring the appropriate activation level of the Emergency Response Centre;
3. pursuant to authentication and verification, promptly notifying possibly affected States;
4. in the case of multiple requests for assistance being received by the Agency, pursuant to the Convention on Assistance, determining priorities in consultation with the Emergency Advisory Committee;
5. ensuring the engaging and deploying of emergency response field personnel from within the Agency staff, and approving expenditures limited to travel costs;
6. authorizing the prompt recruitment of experts from outside the Agency staff to carry out urgent missions, and approving expenditures limited to travel costs;
7. arranging measures for security of access to ERC;
8. appointing the field team members and the Field Response Leader;
9. instructing the Field Response Leader on the tasks to be performed; and
10. ensuring that a 'termination of declaration of emergency' is made when the situation is stable and controlled, and when normal operations can be resumed without harm.

Once an emergency has been declared, the decisions taken by the Emergency Response Manager can only be overruled by the Head of the Emergency Advisory Committee (DIR-NSRW), the Deputy Director General, Nuclear Safety or the Director General.

Director MTPI

The Director MTPI is responsible for managing the public information activities required in the emergency, including:

1. co-operating with Public Information Branches of the UN and other international organizations;
2. preparing information for release to the media ;

3. answering media and public inquiries;
4. organizing media conferences;
5. keeping the Agency staff at large informed during the emergency; and
6. periodically briefing the Director General on media activities and media issues.

Liaison Officers

Liaison Officers are trained members of the Nuclear Safety Department selected from a pre-established list approved by the DDG NS.

They fulfil four distinct functions during an emergency:

1. liaison with the Accident State,
2. liaison with Zone 1 States, defined as those less than 1000 km from the accident site
3. liaison with Zone 2 States, defined as all those not Zone 1 states and
4. liaison with relevant international organizations.

Liaison Officers are responsible for:

- a) establishing and as appropriate maintaining a link with the competent authority of the Accident State;
- b) acting as the point of contact for communication purposes for Missions, National Contact Points and relevant international organization;
- c) helping in arranging for the provision of assistance from State Parties to the Assistance Convention; and
- d) liaise with the MTPI

Technical Leader

The Technical Leader is a trained, senior member of the NSRW Division selected from a pre-established list approved by the DDG-NS. During activation of the ERC, in the temporary absence of the Duty Emergency Response Manager, the Technical Leader will act as the ERM.

The Technical Leader's role is to manage the technical assessment activities of the Agency Secretariat. The Technical Leader is responsible for the guiding and supervising a Technical Team, which is responsible for the following tasks.

1. reviewing the technical information received from the Accident State or any Affected States;
2. liaising, as required, with pre-designated experts from the Departments of Nuclear Safety, Safeguards, and Nuclear Sciences and Applications;

3. reviewing the response by the Accident State and by affected States to identify areas where significant gaps in the response with regard to nuclear and radiation safety may exist and providing this assessment to the Emergency Response Manager;
 4. assessing the hazard for Agency personnel providing on-site assistance and providing recommendations for personnel protection to the Emergency Response Manager;
 5. designating a Technical Liaison Officer to the Director MTPI from a pre-established list of Nuclear Safety Department personnel;
 6. providing support to the Director MTPI through the Technical Liaison Officer; and
 7. guiding and co-ordinate the Information Technology tasks and associated staff.
- Information Technology Support Staff**
8. The Information Technology Support (ITS) Staff is led by the Technical Team Leader. Together, they assure the proper administration of the Early Notification and Assistance (ENAC) Web-site.

The ITS staff are trained members of the Nuclear Safety Department selected from a pre-established list approved by the DDG-NS.

Logistics Manager

The Logistics Manager is a qualified and trained member of the Department of Nuclear Safety selected from a pre-established list approved by the DDG NS.

The Logistics Manager works with designated contact persons in the UNSSS-VIC and other Departments of the Secretariat, as designated by the respective Deputy Director Generals, to provide the following services:

1. emergency assistance funds and general financial services;
2. assistance (visa, security, etc.) to Agency staff members and recruited experts travelling to a State requesting emergency assistance;
3. travel arrangements for Agency staff members and recruited experts travelling to a State requesting emergency assistance;
4. translation or interpretation services;
5. advice on legal matters related to the implementation of the Agency's responsibilities in emergencies;
6. ensuring that response personnel have latest copies of and are aware of relevant emergency procedures, checklists and forms;
7. leading the team of Communications Assistants and Clerical Support Staff;

8. arranging for administrative support at the Agency's ERC, including ensuring the availability of technical publications and reference materials as requested for use in the ERC;
9. provision of additional personnel resources;
10. ensuring the maintenance and operation of the Agency's ERC telecommunications systems (computers, facsimile machines and telephones) and other auxiliary systems (e.g. power supply and air conditioning);
11. organizing technical support for the ERC's telecommunication system, as necessary;
12. maintaining good order within the ERC; and
13. arranging food and accommodation for ERC staff during extended periods of operation of the ERC.

Communications Assistants

The team of Communications Assistants is led by the Logistics Manager. Together, they ensure the proper administration, filing and distribution of all messages and reports generated and received by the ERC.

The Communications Assistants are responsible for the distribution and filing of all incoming and outgoing text messages, and for managing all outgoing facsimiles and e-mails (except for e-mails to the Accident State, which are managed by the Accident State Liaison Officer). In addition, they must monitor the delivery status of each sent message and report problems to the Logistics Manager.

Clerical Support Staff

The Clerical Support Staff team is led by the Logistics Manager and together they ensure that all clerical support necessary for the ERC operations is available.

Assistance Officer

When the Emergency Response Manager needs help to adequately manage requests for assistance, he/she may appoint an Assistance Officer. The Assistance Officer is a member of the Department of Nuclear Safety or the Department of Technical Co-operation, pre-approved by the respective DDG, and designated by the Emergency Response Manager in consultation with the Emergency Advisory Committee.

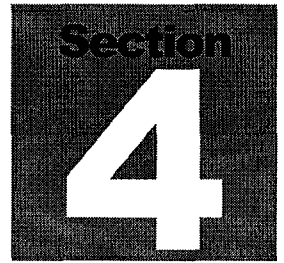
The Assistance Officer is responsible for:

1. establishing the work plan and travel co-ordinating instructions in consultation with the requesting State's Counterpart;
2. identifying the field response team and Field Response Leader and recommending their approval by the Emergency Response Manager;
3. making arrangements in close co-operation with the Logistics Manager and the appropriate Liaison Officer for the dispatch of the team to the requesting State; and
4. maintaining regular contact with the field response team.

**Field Response
Leader**

When personnel resources are provided to a requesting State, a Field Response Leader is appointed by the Emergency Response Manager in consultation with the Emergency Advisory Committee. The Field Response Leader is a trained staff member from NS selected from a pre-established list approved by the DDG-NS.

The Field Response Leader is part of the field team and is responsible for the local (at the site) supervision of the personnel resources dispatched to a requesting State, for co-ordinating with the local Counterpart and for keeping the Emergency Response Manager, through the Assistance Officer, informed of the progress of the work.



4. Concept of operations

Unconfirmed reports of an accident

If there are unconfirmed reports in the news media or elsewhere of a nuclear accident or radiological emergency that may be of international concern, the ERC may or (if there is a request from an official Contact Point for verification of such an event) will contact the 24 hour National Warning Point (NWP) of the relevant State for authentication and/or verification.

If the information is verified, the IAEA's ERC requests the National Competent Authority for a Domestic Accident (NCA(D)) to send a notification or warning message to the ERC. However, if the information proves to be incorrect, the IAEA's ERC will report this to the requesting Contact Point, as appropriate.

Initial Notification or Warning Message

The responsible NCA(D) sends an initial notification or warning message of a nuclear accident or radiological emergency to the ERC by facsimile. The NCA(D) should then obtain confirmation of receipt by telephoning the ERC.

The IAEA's ERC staff or, if outside normal working hours, its on-call NS Duty Officer will immediately be contacted, and will authenticate the message and verify its content with the NCA(D) of the Accident State that issued it.

If the information is confirmed the ERC staff will:

- establish appropriate contact details with the Accident State for further actions and information exchange;
- activate, as appropriate, the ERC according to the emergency class/condition;
- quickly review the information and then, depending on the emergency class/condition, send the information received by facsimile to NWPs, National Competent Authorities for an Accident Abroad — NCA(A)s, Permanent Missions and relevant international organizations; and telephone NWPs to confirm receipt;
- establish dedicated telephone/facsimile/e-mail links with the NCA(D) and the Permanent Mission of the Accident State; direct telephone links with the NCA(A) and Permanent Missions of relevant Affected States; and direct telephone links with relevant international organizations;
- post, as appropriate, the information received to its ENAC Web-site.

Warning messages marked '**confidential**' by the Accident State will not be provided to Contact Points. Notifications under the Early Notification Convention cannot be '**confidential**'.

Activation

Emergency response actions will vary according to the magnitude and seriousness of the event. Initial response actions depend on the emergency class or condition.

The IAEA's ERC activation levels are as follows:

Mode	Description
Normal/Ready	The ERC is not staffed continuously; duty staff are on call to respond immediately to messages from the UNSSS who staff the telephones and facsimile machines continuously
Standby	The same as for 'Normal/Ready', but additional relevant staff are placed on call and preparations are made to be able to activate or respond rapidly, or extra assessments are made and extra attention is given during office hours from staff's own offices
Partially activated	The ERC is staffed continuously (24 hours with shift changes), but only partially. Dedicated telephone lines, facsimile and e-mail may be activated, and all communications are made directly to the ERC. The ERC is the focal point for communication with parties, with UNSSS as a backup
Fully activated	The ERC is staffed continuously (24 hours with shift changes) and fully. Dedicated telephone lines, facsimile and e-mail are activated, and all communications are made directly to the ERC. The ERC is the focal point for communication with parties, with the UNSSS as a backup.

Follow-up information

The NCA(D) of the Accident State sends follow-up information to the IAEA. This information is rapidly screened and may be dispatched, as appropriate, to the NCA(A)s and the Permanent Missions of relevant States and international organizations.

Information marked '**confidential**' or personal medical information will not be provided to Contact Points.

Change of emergency class/condition and activation level

If the emergency class for a nuclear facility changes, or an emergency condition becomes '**transboundary**', the NCA(D) of the Accident State sends a notification (or warning message, as appropriate) to the ERC and telephones to obtain confirmation of receipt.

The IAEA's ERC quickly reviews the information and then sends the information received by facsimile to relevant NWP's, NCA(A)s, Permanent Missions and relevant international organizations; and telephones the relevant NWP's to obtain confirmation of receipt.

Changes of activation levels will be made and may be announced appropriately as a situation develops, escalates or de-escalates. In particular, when the situation is controlled and stable and does not present any further short term risk to health and the environment, the IAEA's ERC will inform all relevant Contact Points that it is standing down and returning to 'normal/ready' operations. The status of the ERC will be posted on the ENAC Web-site.

Technical Assessment

Provision of a detailed description of the emergency is the responsibility of the Accident State. Decisions regarding public protective actions are the responsibility of individual States. In addition, during the emergency, the information available to the Agency staff will be limited and not always verifiable through direct means. Therefore, in an emergency, the Emergency Advisory Committee will neither allow nor offer independent assessments of the event and of its consequences, nor make recommendations regarding protective actions unless:

1. the information used to make the assessment is obtained by Agency staff and/or external experts as part of a project or a task sponsored by or managed by the IAEA; or
2. the information available indicates clear gaps in the response with regard to nuclear and/or radiation safety by the Accident State or any other affected State.

In accordance with these two principles and pursuant to the Agency's obligations and response objectives in an emergency, the Technical Team Leader must request the technical team to carry out a technical assessment of the available information in order:

- a) to ensure that the initial and any additional information received from the Accident State is consistent and coherent prior to its distribution to the National Contact Points and relevant international organizations;
- b) to ensure as far as possible that any other relevant information made available to the Agency's ERC by any State is verified, consistent and coherent prior to its distribution to other States;
- c) to review the trend assessment made by the Accident State and, on the basis of the information available, to evaluate the adequacy of that assessment; and
- d) to review the response by the Accident State and by affected States (i.e. States where protective actions may need to be taken) and, on the basis of the information available, to identify areas in which there may be safety significant deficiencies in the response.

In practice, the ERC is expected to become a focal point for National Contact Points for requests for information regarding:

- the safety of foreign nationals;
- food exports from the Accident State; and

- other trade.

In these cases, the Agency's ERC will restrict its function as far as possible to compiling and providing the relevant information and appropriate Agency guidance on:

- generic and operational intervention levels;
- action levels and assessment methods; and
- techniques and tools to allow the requesting State to assess its own needs.

The ERC may also offer the good offices of the Agency in the form of teams of experts to help the requesting State to assess its own needs. However, the ERC will not directly make recommendations on protective actions.

Termination

The NCA(D) will announce its deactivation by sending a timely message by facsimile or e-mail to the IAEA's ERC which will distribute it to all relevant Contact Points.

Requests for information

Requests for information about a continuing event may be made to the ERC by an NCA(A) or a Permanent Mission. The ERC, after authenticating the request, will compile it with any similar requests and contact the NCA(D) of the Accident State or NCA(A) of the Affected State appropriately. The NCA(D) or NCA(A) is expected to respond as promptly as possible to the ERC. The ERC will rapidly screen the reply for consistency, plausibility, intelligibility and sense and then dispatch the response to the requesting Contact Point.

An NCA(A) or Permanent Mission may also directly request the NCA(D) of the Accident State for information. However, requesting information through the IAEA will help to alleviate demands on the NCA(D) to respond to numerous separate international requests.

Requests for assistance

Assistance may be requested by the relevant National Competent Authority⁸ by facsimile to the ERC. The IAEA's ERC may provide assistance in making an initial assessment with resources allocated for this purpose (this may include an initial field mission), and/or may co-ordinate or broker any international assistance to be provided.

Public Information

According to the emergency class or condition:

- the Accident State or Affected States may send copies or summaries of press releases to the IAEA's ERC by facsimile or e-mail.
- the IAEA may post information excerpted and summarized from ENAC about the reported situation on WORLDATOM, the URL for which is:

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

⁸ NCA(D) for a domestic accident; and NCA(A) for an accident occurring in another State.

- The IAEA may monitor the international news media to look for inconsistencies and rumours, and may request clarification as appropriate from the relevant NCA. Only authenticated and verified information will be distributed and posted to ENAC as described above and may be placed on WORLDATOM.
- The IAEA may issue press releases based on its functions in an emergency, and will co-ordinate the release of factual information provided through the ENATOM arrangements with the Accident State or Affected States. Copies of press releases will be sent to the Accident State or Affected States and posted on WORLDATOM.

Note

Information marked 'confidential' or personal medical information will not be posted to the Web or included in press releases.

In addition, the IAEA Division of Public Information (MTPI) on behalf of the Director General:

- will endeavour, as appropriate, to relay promptly to the international news media information provided by the Accident State through the IAEA's ERC on the situation, actions taken and any other information judged relevant;
- will provide information on the IAEA's role and actions as defined by the Conventions; and
- will liaise with the ERC regarding any rumours or reports in the news media of nuclear accidents or radiological emergencies.

To ensure that the information provided is consistent and coherent, public information activities will be co-ordinated, as far as possible, with other United Nations and international organizations, as well as with the Accident State, with due regard to their respective areas of responsibility.

Co-ordination with relevant international organizations

The IAEA's Emergency Response procedures reflect the agreements that are established with UN Organizations and other relevant international organizations as described in the Joint Radiation Emergency Management Plan of the international organizations, EPR-JPLAN — Attachment 3 to ENATOM.

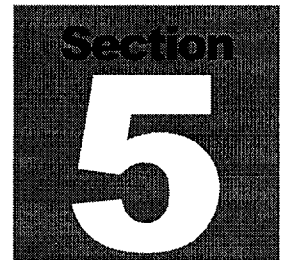
Command and Control

Field personnel provided by the Agency to a requesting State will normally remain under the command of the Emergency Response Manager. Task will be defined and controlled directly by the ERC or by a local representative of the requesting State, according to arrangements established at the time of the emergency.

Protection of Field Personnel

The International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources [5] apply to Agency field personnel. In particular, the Emergency Response Manager and the Field Response Leader must ensure that

adequate protective equipment and personal dosimeters are provided, any internal monitoring is performed as appropriate, and records are kept. The Field Response Leader will be responsible for ensuring that doses to field personnel are in compliance with the requirements of the BSS.



5. Preparedness

5.1. Responsibilities

The DDG-NS is responsible for ensuring that an effective capability for emergency response is developed and maintained by the Secretariat. The Co-ordinator, Emergency Assistance Services, in the Emergency Preparedness and Response Unit is confirmed by the DDG-NS as responsible for:

1. establishing the concept of operation and structures for the actions that must be performed by the Agency's Secretariat and staff in the response to a potential or actual nuclear accident or radiological emergency;
2. ensuring fulfilment of the Agency's obligations as stipulated under its Statute and under the terms of the Conventions on Early Notification and on Assistance, as well as those which are not directly covered in the aforementioned, but for which the Agency may offer its good offices;
3. maintaining the proper resources for receipt and handling of relevant communications at all times;
4. co-ordinating and/or brokering the provision of assistance as required;
5. developing standing agreements with qualified institutions to be prepared to render assistance and to do so on request;
6. familiarizing, through training and exercises, Agency staff members who could be involved in any emergency response function with the proper operational procedures; and
7. continuing preparedness activities, including training, drills, exercises, and maintenance of the logistic infrastructure and telecommunication systems.

The ERC Clerk is responsible to the Co-ordinator, Emergency Assistance Services for the maintenance of the ERC equipment and for ensuring that the UNSSS-VIC telecommunications equipment used for notification is operating properly at all times.

The Unit Head, Emergency Preparedness and Response, reports annually, through DIR-NSRW and DDG-NS, to the Director General on the state of readiness of the Agency Secretariat for emergency response.

5.2. Human resources and organization

5.2.1. Interdepartmental liaison group for emergency preparedness

The Interdepartmental Liaison Group for Emergency Preparedness is composed of representatives of each Department of the Agency' designated by the respective DDG. It is chaired by the Co-ordinator, Emergency Assistance Services and meets periodically in order:

1. to co-ordinate efforts in support of the Secretariat's emergency preparedness;
2. to identify and resolve issues relating to the state of emergency preparedness of the Secretariat;
3. to review the emergency response plan annually; and
4. to bring to the attention of the respective DDG policy issues that cannot be resolved by the Liaison Group.

5.2.2. Alternate staff

During planned absences of Agency staff members, alternates for normal permanent positions will be the designated acting staff for those positions.

In the event of the unplanned unavailability of key staff, alternates will be designated by the Duty Emergency Response Manager.

In the event of the unplanned unavailability of the on-duty Emergency Response Manager, the Nuclear Safety Duty Officer will act as the Emergency Response Manager until the senior member of the Emergency Advisory Committee present confirms the appointment or his or her relief by a designated staff member from a predetermined list.

5.2.3. Backups

A number of qualified persons will be designated for each position in the emergency organization, which will provide confidence that the response objectives described in NAREAP can be met. Persons designated for positions in the Agency's Emergency Response System will inform the Co-ordinator, Emergency Assistance Services when they are not available for emergency response duties (owing to vacation, duty travel or disability leave, for example).

5.3. Documentation

5.3.1. Procedures and checklists

Emergency procedures and checklists describing the standard response actions to be taken by Agency staff in an emergency will be developed and implemented. The Co-ordinator, Emergency Assistance Services is responsible for developing ERC procedures and checklists. Procedures and checklists will:

1. be strictly in compliance with the relevant Conventions;
2. be in harmony with and traceable to the NAREAP and its objectives;

3. apply the IAEA Safety Standards Series publications and, if applicable, other international or national recommendations and guidelines;
4. define the tasks to be performed by each team or member of a team in emergency response operations;
5. provide guidelines for making decisions regarding activation level and response;
6. identify the international or intergovernmental organizations that have made agreements with the Agency for co-operation and assistance in the case of a Nuclear Accident or Radiological Emergency; and
7. identify, in detail, the nature of the co-operation offered according to the written agreement between the Agency and the international or intergovernmental organization(s) and make texts of agreements readily available for consultation;
8. define the tasks to be performed by Agency staff to maintain readiness.

Departmental representatives on the Interdepartmental Liaison Group for Emergency Preparedness are responsible for ensuring that appropriate departmental procedures are developed in support of the NAREAP.

5.3.2. Revisions

The Plan will be formally reviewed and, if needed, revised annually by the Interdepartmental Liaison Group for Emergency Preparedness. Following all drills and exercises, written feedback will be provided by the exercise director to the Co-ordinator, Emergency Assistance Services. Deficiencies will be recorded in an annual report to the Director General. Critical deficiencies will be promptly reported to the DDG-NS and corrected within 30 days. Other deficiencies should be corrected within six months.

Procedures will be reviewed and, if necessary, revised by the ERC personnel every six months. Any changes to procedures and checklists will be promptly brought to the attention of the relevant emergency personnel and, if appropriate, of the Interdepartmental Liaison Group for Emergency Preparedness.

Inter-organizational agreements will be reviewed annually by the Co-ordinator, Emergency Assistance Services to verify that they are still appropriate and relevant.

5.3.3. Appendices

NAREAP contains several appendices which describes the practicalities of establishing the ERC's infrastructure for preparedness and response.

5.4. Financial and administrative arrangements

5.4.1. Financial resources

The Agency is committed to responding in a timely manner to a nuclear accident or radiological emergency or to a request for Assistance and helping to minimize the consequences for public health. In some instances, events may dictate the need for urgent access to financial resources.

The initial source of funds for implementing any actions will be the budget allocation for response to emergencies in the project on the Conventions on Early Notification and Assistance (Sub-programme K.2/Project K.2.01). When the relevant funds under this project are exhausted, the Working Capital Fund will be used for the temporary financing of the discharge of the IAEA's obligations under the two Conventions, provided that the total advances from the Fund at any time do not exceed US\$500,000, and that the Working Capital Fund has resources available at the time the funds are needed.

On declaration of an emergency, the duty Emergency Response Manager may authorize the use of funds up to \$20,000 to discharge the IAEA's responsibilities.

DIR-NSRW may authorize the use of up to a total of \$100,000 for an emergency.

5.4.2. Administrative arrangements

Special personnel arrangements and administrative arrangements have been established by the Department of Management (MT) in consultation with the Department of Nuclear Safety (NS) for staff taking part in the Agency's Emergency Response System and for emergency procurement, respectively.

5.5. Information resources and management

5.5.1. Contact points

Promptly after receiving the name and contact details or changes thereto of the designated Competent Authorities and Warning Point, the IAEA's ERC will:

- 1.** ensure that the correct channels described there have been used for communicating with the IAEA; if not, the ERC will submit the information received to the States' Permanent Missions to the IAEA for their appraisal and confirmation;
- 2.** check that the contact details for the NWP's are correct by performing a simple communications test on or shortly after the date of change;
- 3.** include the information received in its Contact Point database;
- 4.** maintain an up to date list of such Competent Authorities and Warning Points;
- 5.** provide, twice a year, to the IAEA's Member States, to the Parties of the two Conventions and to relevant international organizations the information referred to in sub-item (4) above.

5.5.2. Routine communications

National Competent Authorities, National Warning Points, Permanent Missions to the IAEA, international organizations and others may wish to consult the ERC on matters concerning the two Emergency Conventions, the ENATOM and emergency arrangements in general. For this purpose, the ERC has specific communication channels through e-mail, telephones and facsimile.

5.6. Telecommunications

5.6.1. The Agency's Emergency Response Centre System

The ERC telecommunications system allows the ERC to fulfil the Agency's communications related obligations, responsibilities and functions under the provisions of the Early Notification Convention and Assistance Convention. Both Conventions specify that the NWP and the Agency focal point will be available 24 hours a day. This system is designed to provide the ERC with a high degree of redundancy to ensure the reliability of the system. All incoming facsimiles, if correctly addressed, are simultaneously transmitted to the UNSSS-VIC, the IAEA telecommunications centre and the ERC, and are converted into e-mails, which are delivered automatically to the IAEA telecommunications centre and the ERC.

The ERC has several dedicated telephone lines for notification purposes and assistance requests. In normal operations, these lines are switched through to the UNSSS-VIC which is manned 24 hours a day. Upon activation of the ERC, these lines are switched through to the ERC. A separate dedicated line is also available for the Accident State (its number will be provided to any Accident State at the time of an emergency to provide a direct communication link with the ERC). All communications on these lines are recorded.

The ERC is also fully equipped to receive and send facsimile messages through the IAEA's mainframe or directly through the IAEA's telecommunications centre as well as through commercial communications distributors, as necessary. A capability for electronic mail is also available to support the ERC operations.

The ERC is equipped with an on-line Reuters electronic news network and satellite TV and radio connections. In addition, the ERC can provide field personnel with tape recorders as well as video and digital cameras, mobile and satellite telephones and laptop computers that can be linked via telephones lines to communicate via e-mail or facsimile to the ERC.

5.7. Information technology

5.7.1. Computer system and network

The ERC has PCs on the Secretariat's network to provide computing support for the technical matters and connections to the Internet for access to relevant Web-sites.

5.7.2. Server and Web server

The ERC has its own secure file server — storing all electronic information — located in the ERC. The server is also used as test server for the emergency Web-sites (ENAC). An automated backup service of the data guarantees its availability. The actual Web server is hosted and maintained by the Secretariat's Computer Section.

5.7.3. Applications

The ERC also has access to:

1. a list of competent authorities and emergency points of contact for States and international intergovernmental organizations;

2. information on potential resources that could be made available by States Parties in the event of a nuclear accident or radiological emergency in terms of human resources (health physicists and/or medical doctors), equipped emergency response teams, equipment and materials, and specialized facilities and services;
3. information on the types of assistance that could be rendered by international organizations and/or how to obtain this assistance; and
4. information on power reactors and research reactors in operation around the world.

5.8. Equipment

5.8.1. Practical emergency communication channels

The following modes of emergency communication with the ERC are currently available:

Facsimile Facsimile is presently the ERC's preferred means of communication for initial notification, warning messages and changes of emergency class from and to Contact Points, as well as for providing follow-up information, and for requesting information and assistance.

Telephone The telephone is used both to authenticate and to verify notification and/or warning messages arriving at the ERC as well as to establish a direct communication link with any National Warning Points and/or National Competent Authorities. All telephone conversations with [all or all outgoing?] the ERC are recorded.

Electronic mail E-mail with attachments may be used for providing follow-up information, and for requesting information after activation.

Emergency Web-site The ERC offers a passive and secure exchange of emergency information through an official protected Web-site (Early Notification Convention and Assistance Convention Web-site — ENAC), which can be accessed with a log-on identification and a password. The identification and password are communicated to the NCA(A) and the Permanent Mission for subsequent distribution. It is expected that the NCA(A) will maintain a controlled list of bodies to which passwords have been given and be responsible for ensuring that updates to passwords are communicated and tested, and may request the ERC to provide them with a new password if security has been compromised.

Telex The ERC will only use telex to those States which have specifically requested its use in advance of an emergency.

5.8.2. Other telecommunication devices

Other telecommunication devices are also available in the ERC.

Electronic news network The ERC is equipped with an on-line Reuters electronic news network for performing practical searches for media reports.

TV, cameras, radio, video and tape recorders The ERC is equipped with satellite TV and radio connections for monitoring media coverage of nuclear accidents or radiological emergencies. It also has available video and tape recorders as well as video and digital cameras

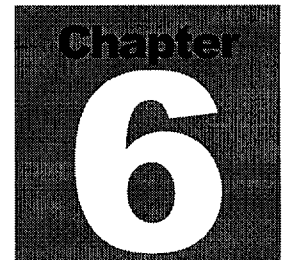
Mobile and satellite telephones, laptop computers Mobile and satellite telephones are available as part of the emergency communications infrastructure. Laptop computers that can be linked via telephone lines to communicate via e-mail or facsimile to the ERC are also available.

5.8.3. Radiation monitoring devices

Radiation Detectors Different types of detectors and measurements devices are available for field operations.

5.9. Training and exercises

The Co-ordinator, Emergency Assistance Services is responsible for developing and maintaining a training and exercise programme for all emergency response staff. This programme will include requirements, records and materials for training and exercises.



6. References

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8. INTERNATIONAL ATOMIC ENERGY AGENCY, Interoffice Memorandum from DDG-NS to DG (December 2000), Use of Working Capital Fund to Finance Obligations under the Notification and Assistance Conventions.