

THE ROLE OF ENRESA IN NUCLEAR AND RADIOLOGICAL EMERGENCIES



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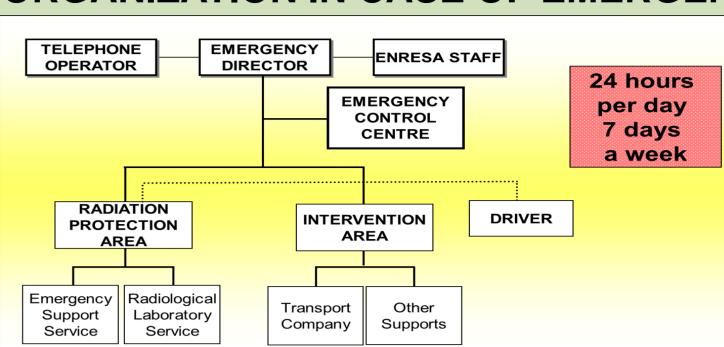


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Introduction

ENRESA is the national company in charge of radioactive waste management in Spain. The company was set up in 1984, and one of its missions is to intervene in the event of a nuclear or radiological emergency in support of the national civil defence system and security forces. ENRESA's interventions are based on the Basic Nuclear Emergency Plan and the Basic Directive on radiological risk.

ENRESA-ORGANIZATION IN CASE OF EMERGENCY



Contingency Plan In Response To Incidents And Accidents During Transport Of Low And Intermediate Radioactive Wastes

SCOPE

- > ENRESA TRANSPORTATIONS
- > ENRESA WORKERS
- ALL AROUND SPAIN



EVENT CLASSIFICATION

> TYPE ONE

- THE TRANSPORT IS TEMPORARILY STOPPED.
- THERE IS NEITHER OVERTURN NOR DAMAGE.

> TYPE TWO:

- THE VEHICLE IS DAMAGED.
- THE CARGO IS NOT DAMAGED AND THERE IS NOT DISPERSION OF CONTENT.
- THE DRIVER CAN BE INJURED OR NOT.

> TYPE THREE:

- THE CARGO IS DAMAGED AND THE CONTENTS IS DISPERSED.
- THE DRIVER CAN BE INJURED OR NOT.

> TYPE FOUR:

- THE CONTENTS IS DAMAGED OR THERE IS A FIRE.
- THE DRIVER CAN BE INJURED OR NOT.

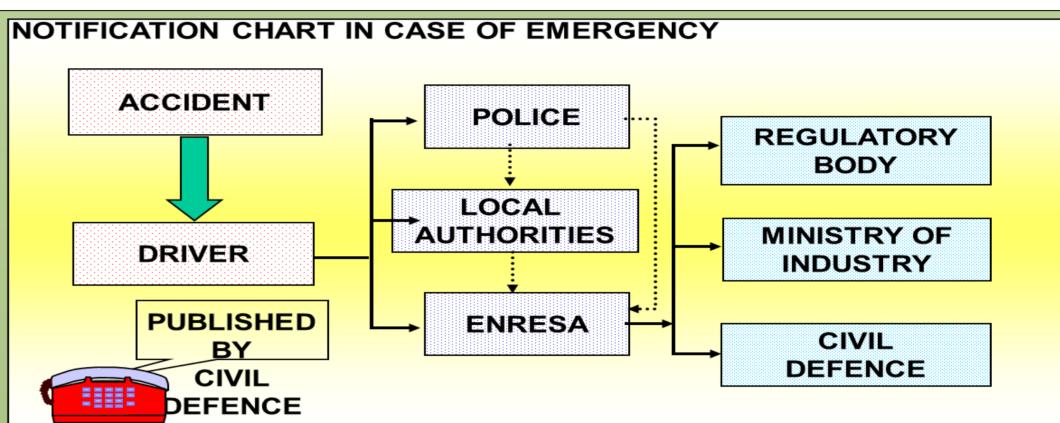
RESPONSE PHASES FOR TRANSPORT ACCIDENTS

> ISOLATING PHASE:

 Notifying the local authorities about the accident (by the driver or another person)

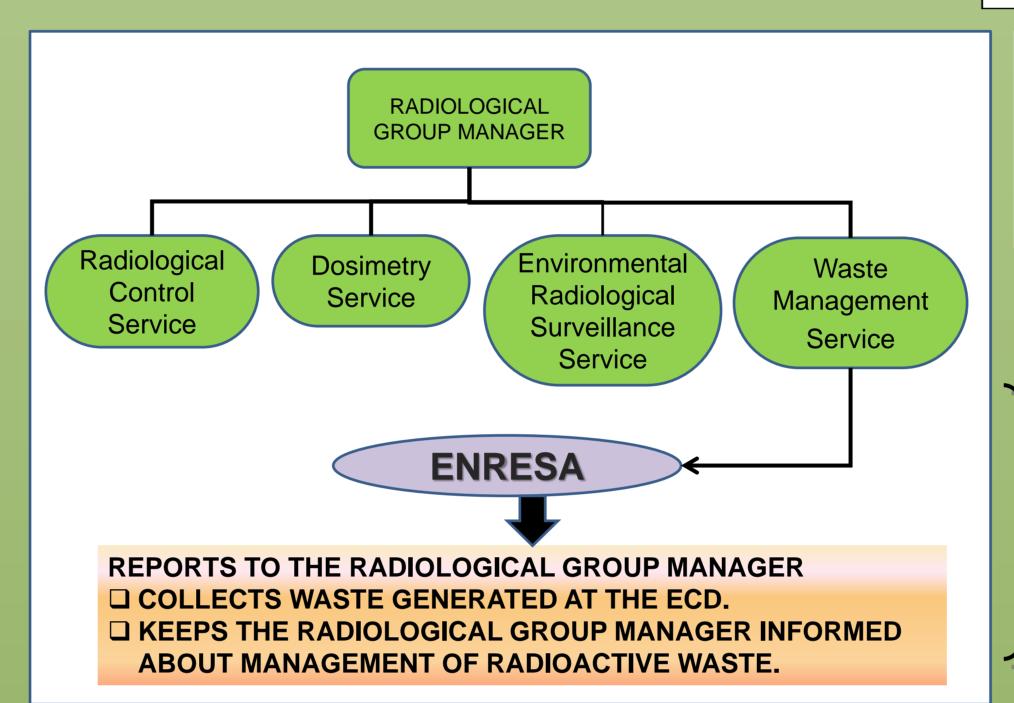
> ATTENDANCE PHASE:

- Tasks of the local civil emergency services: Saving lives and attending to injured people, isolating the area...
- Tasks of the Radiation Protection team: Radiation monitoring and sample taking...
- Tasks of other emergency teams: Carrying out protective actions...



Basic Nuclear Emergency Plan

- > Internal to NPP Internal Emergency Plan (IEP)
- > External
 - PENCRA: CENTRAL RESPONSE AND SUPPORT NUCLEAR EMERGENCY PLAN
 - Nuclear Emergency Plans (PEN): Action of operations groups
 - PENTA, PENBU, PENGUA, PENVA, PENCA
- Nuclear Emergency Municipal Actions Plans (PAMEN): Municipal action
- > CATEGORY I: No release of radioactive material, no protective measures are necessary.
- > CATEGORY II / III: May give rise to release of radioactive material which, although it may not require use of protective measures, requires setting up access control and making preparations for some other action.
- CATEGORY IV: Quantities of activity may be released that require the use of protective measures among the population.



CATEGORY	SITUATION	ENRESA ACTIONS
1	0	NOT REQUIRED
II- III	1	LOCATION
IV	2 3	ALERT ACTIVATION

ECD: Classification and Decontamination Station Location where evacuated personnel are classified and their level of contamination is determined, requiring showers if necessary







Basic Directive on Radiológical Risk

Article 4. Criteria and recommendations applicable to emergencies involviong radiologicaal risk.

Section 4: ENRESA will perfor the duties assigned to it by current regulations in the event of a radiological emergency to support the national civil defense system in the manner and under the circumstances required of it by the Nuclear Safety Council (CSN) or, if applicable, the Ministry of Industry, Tourism and Trade.

EMERGENCY SITUATIONS

Situation 0: With the facility itself. Controlled by PEI.

controlled by the IEP. Autonomous Community Plan

> Situation 2: May affect people inside and outside the

declaration of national interest by the Ministry of the

facility. Necessary measures in the State Plan.

Situation 3: The risk is so severe that it requires a

Situation 1: May affect people at the facility. Not

takes effect.

Interior.

RADIOLOGICAL EMERGENCY CATEGORIES

- > CATEGORY I: Off-site emissions capable of producing severe deterministic effects.
 - Centralized or final storage facilities for irradiated nuclear fuel outside nuclear power plant sites.
- > CATEGORY II: Off-site emissions capable of exceeding levels requiring urgent protective action, but very low probability of giving rise to severe deterministic effects.
 - Temporary storage facilities for irradiated nuclear fuel on former nuclear power plant sites.
- > CATEGORY III: Consequences limited to the site in which the dose thresholds corresponding to the appearance of deterministic effects may be exceeded. No significant off-site radiological risk.
 - Storage and management facilities for medium activity waste.
 - Nuclear facilities undergoing decommissioning with no storage of spent nuclear fuel on-site.
- > CATEGORY IV: Limited health risks to humans. Situations with radiological risk in unregulated activities.
 - Storage and management facilities for low activity waste.
- > CATEGORY V: May require action involving restricting foods or consumer goods in the case of accidents occurring outside national borders.

Training and Drills: Another of ENRESA's activities relating to emergencies is participation in training courses for the State security forces, fire brigades and medical personnel on radiological or nuclear emergencies and on accidents in the transport of radioactive material.

Drill with members of Civil Defence



Measuring the package







Asking for information about the

Drill with fireman



Conclusions: ENRESA has an emergency response plan based on Spanish regulations in the event of incidents and accidents during transport of waste and in case of any radiological emergency. One important aspect of the plan is collaboration on training plans with government and security forces.