

Royaume du Maroc

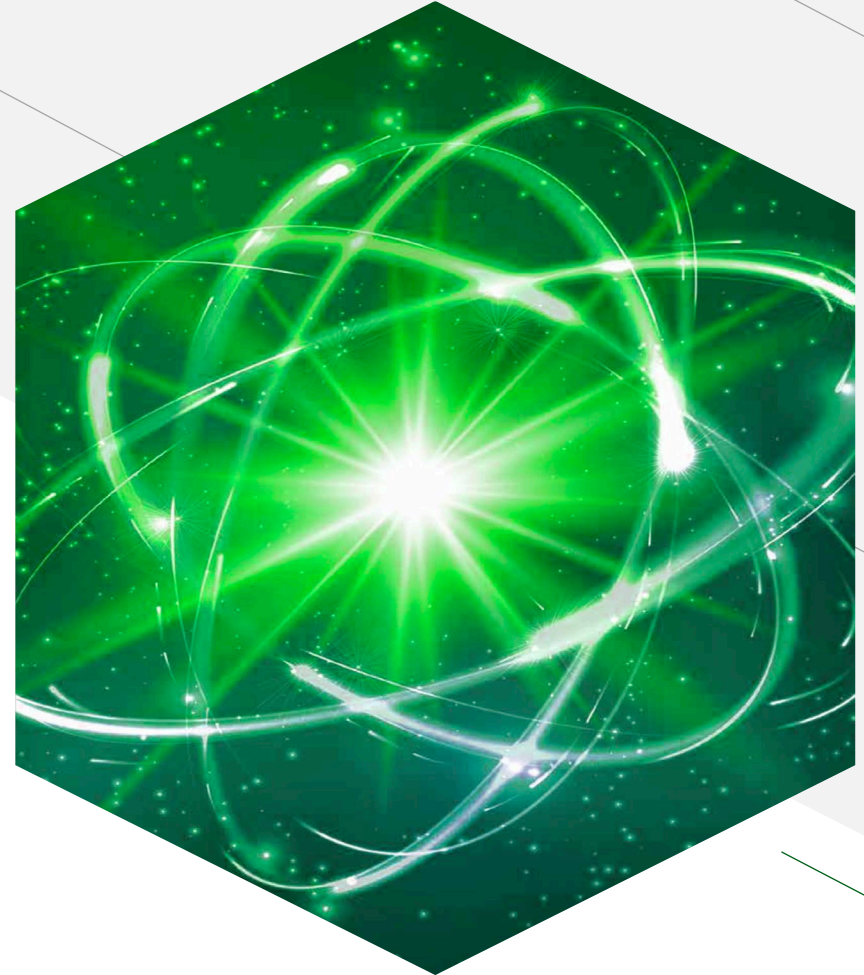


**CNESTEN**

Centre National de l'Energie,  
des Sciences et des Techniques Nucléaires

# Implementation of the Human Reliability Program (HRP) at CNESTEN

**Youssef HARRAQ**



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# Introduction

- ✓ Nuclear safety and security are a priority for the French National Centre for Nuclear Energy, Science and Technology (CNESTEN).
- ✓ This program takes into account various aspects:
  - National regulations and international recommendations.
  - Internal safety regulations (instructions, circulars, guidelines, procedures, etc.).
  - Structural and organizational aspects of CNESTEN.
- ✓ The Human Reliability Program (HRP) is an additional component that strengthens CNESTEN's safety and security program.



# Steps in implementing the HRP at CNESTEN (1/3)

- ❑ First meeting with the PNS: initial contact and introduction to the HRP.
- ❑ Awareness session for CNESTEN managers and staff on the HRP, roadmap for work and cooperation with the PNS and ORNL for the implementation of the CNESTEN HRP.
- ❑ Establishment of the HRP steering committee.
- ❑ Development of the terms of reference (ToR) for the operation of the steering committee, workshop for CNESTEN staff on the HRP.



# Steps in implementing the HRP at CNESTEN (2/3)

- ❑ Development of working documents related to the HRP:
  - Instructions on the implementation of the HRP .
  - Note on the role and responsibilities of stakeholders in the HRP.
  - Procedure on the medical component in the HRP.
- ❑ Communication and awareness program for key HRP staff, managers, and social partners.
- ❑ Official launch of the HRP, letter from the Director General engagement.
- ❑ Workshop on behavioral observation (BOP) for key HRP staff.



# Steps in implementing the HRP at CNESTEN (3/3)

- ❑ Self-assessment of the CNESTEN Health Project (HRP) conducted by the steering committee with support from the National Health Program (PNS) (self-assessment checklist).
- ❑ Improvement actions: Development of two procedures describing the role and responsibilities of line managers and the HR manager within the HRP.
- ❑ Signing of the technical agreement with the ISS (CEMPN).
- ❑ Workshop on the HRP and the Budgetary and Performance Framework (BOP), a new training program primarily consisting of interactive exercises, videos, and role-playing scenarios.
- ❑ Transition of CNESTEN staff for medical examinations.
- ❑ Acquisition of medical equipment related to the HRP and its installation at the CNESTEN medical office.

# Objectif du Programme de Fiabilité Humaine (1/2)

Ensuring a high level of safety and security in the facilities and activities at CENM.



# HRP Objectives (2/2)

- ❑ Safety Measures: Ensure you are mentally and physically fit to perform all job tasks.
  - Adhere to safety measures.
  - Responsible attitude.
  - Productivity.
  - Reliability.
- ❑ Security Measures: Ensure that only authorized employees have access to sensitive materials and information.
- ❑ Common element — staff reliability.

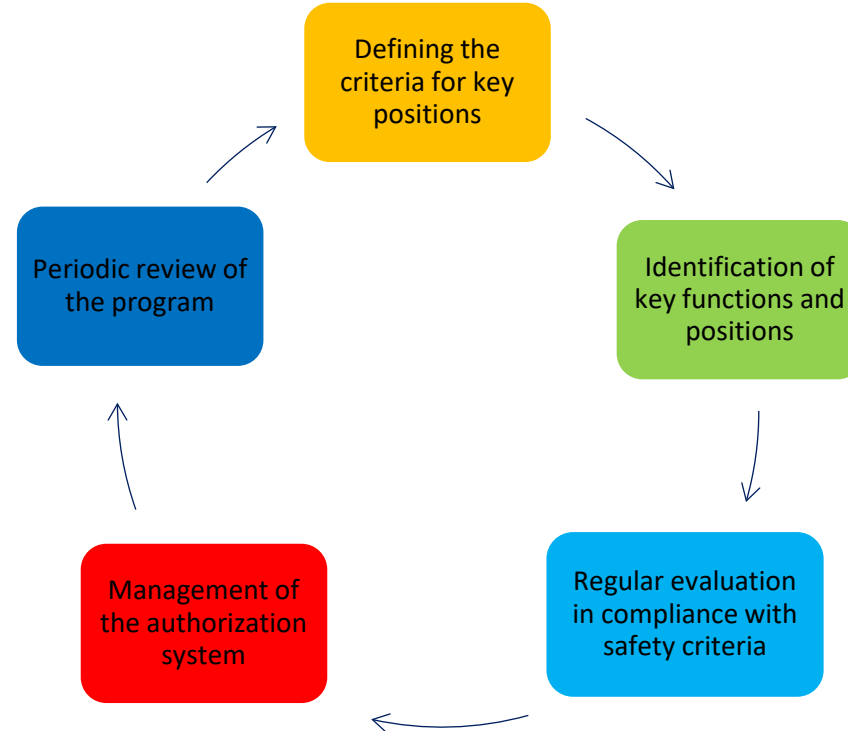


# Definition of key positions (1/2)

1. Staff with access to sensitive equipment, systems, and information.
2. Staff with access to nuclear material.
3. Staff with access to Category I and II radioactive sources.
4. Staff with access to hazardous substances



# Definition of key positions (2/2)

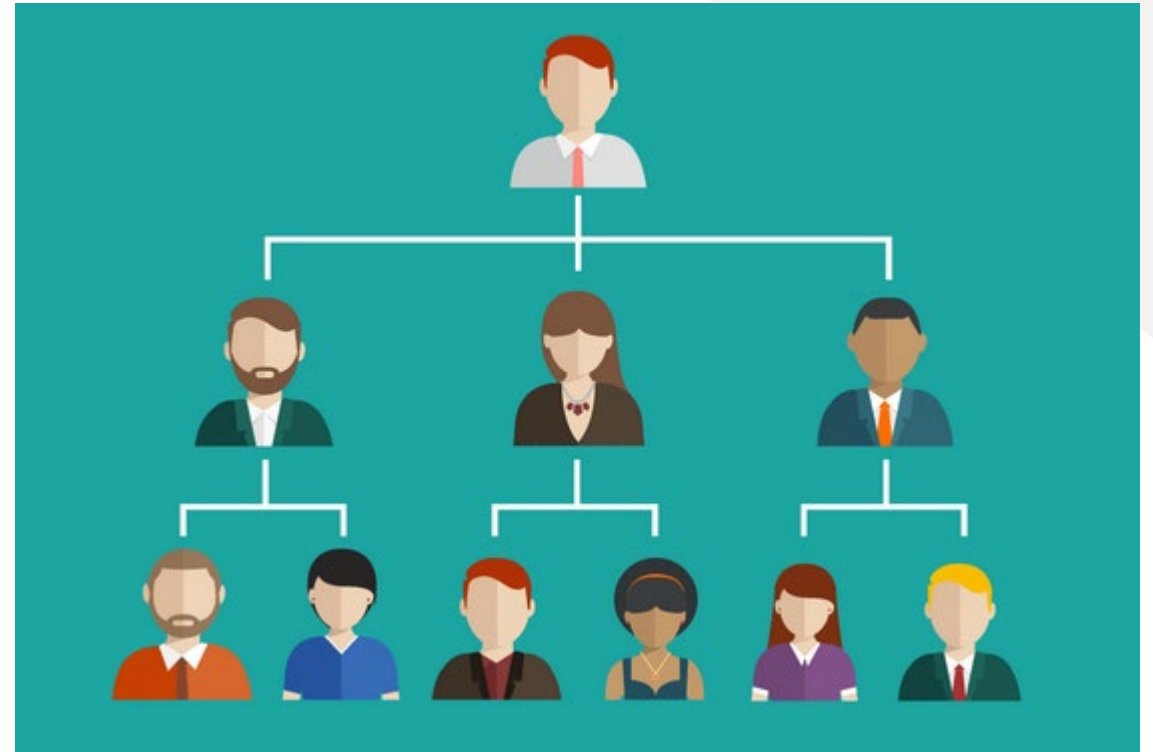


# HRP Elements and components

- ❑ The HRP involves three elements:
  - Management evaluation by line managers.
  - Medical evaluation.
  - Security evaluation.
- ❑ Each position listed in the PFH is subject to periodic evaluation based on these three components.
- ❑ The Steering Committee (SC) makes recommendations to the Director General (DG).
- ❑ The Director General makes the final security clearance decisions.

# HRP Components

1. Managerial Component
2. Medical Component
3. Security Component



# Managerial Component (1/2)

Line managers support the HRP through periodic evaluations of their colleagues:

- Careful observation of employees.
- Quality of work.
- Attendance.
- Attitude
- Mental and physical health.

# Managerial Component (2/2)

## Annual evaluation of the HRP carried out by line managers

The line manager assesses the various data relating to the employees' ability to perform the different tasks reliably and in compliance with safety and security rules and procedures in force.

# HRP Components

1. Managerial Component
2. Medical Component
3. Security Component



# Medical Component (1/3)

Enhanced safety and reduced security risks by observing individuals whose judgment may be impaired by:

- Illness/health condition.
- Mental health problems/personality disorders.
- Drug use.
- Any other condition or circumstance that may pose a security risk.



# Medical Component (2/3)

## Medical evaluation

Medical examinations are defined and prescribed by the occupational physician based on the key position held and the tasks performed, including:

- Specialized medical examinations.
- Psychological examinations.
- Drug screening.

# Medical Component (3/3)

## Actions of the occupational physician within the framework of the HRP

- ❑ Conduct performance evaluations of key staff members based on the qualification criteria defined for each position.
- ❑ Make recommendations regarding HRP clearance to the Executive Committee through periodic medical evaluations and examinations.



# HRP Components

1. Managerial Component
2. Medical Component
3. **Security Component**



# Security Component

## Actions of the security manager

- ☐ Conduct security assessments for employees in key positions.
- ☐ Make recommendations on HRP clearance to the Steering Committee based on the results of periodic assessments.

# Authorization process (1/2)

## Steering Committee

- ❑ The performance evaluations of line managers, medical assessments, and the analysis of security measures are submitted to and presented by the Steering Committee.
- ❑ Steering Committee Members:
  - Director of Safety and Security (Chair).
  - Head of the Worker and Site Protection Division.
  - Human Resources Manager.
  - Occupational Physician.
  - Head of the Industrial Health and Safety Unit.
  - Head of the Physical Protection Unit.
  - Chief of the Royal Gendarmerie Brigade

# Authorization process (2/2)

## Role of the Steering Committee

- ❑ The Steering Committee's missions and activities include:
  - Proposing a human reliability strategy, broken down into a program with objectives, aligned with CNESTEN's policy;
  - Proposing the resources, actions, and methods for its implementation;
  - Establishing procedures for program execution;
  - Overseeing the program's implementation at the CNESTEN level by regularly evaluating its progress;
  - Advising the Director General on the entry, retention, or exit of individuals from the Human Reliability Program (HRP).
- ❑ The Director General approves CNESTEN's HRP policy and decides on its implementation. Upon the Steering Committee's recommendation, the Director General reserves the right to grant security clearance to any individual holding an HRP position.

# Training program

- ❑ To ensure staff buy-in and the program's sustainability, training sessions are held periodically for key program personnel and their managers.
- ❑ The training program covers the following topics:
  - HRP: Introduction and objectives.
  - Program components and responsibilities of stakeholders.
  - Program contributions and benefits.
  - Nuclear safety awareness.
  - Medical approach within the HRP framework.
  - Behavioral observation.



# Conclusions

- ❑ A person authorized by the HRP has a significant responsibility in ensuring safety and security within their facility.
- ❑ Training and communication are essential elements in understanding the objectives of the HRP program.
- ❑ Implementing a HRP program visibly strengthens the safety and security culture within the facility.



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● **Thank you for your attention.**

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