

# Human Factor in Nuclear Security

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Synopses presented by Nuclear Security Branch of Consejo de Seguridad Nuclear (Spain)

There is no doubt that the Human factor in many industrial activities is highly important.

In fact regarding Safety, the Reactor Operators who work in Control Room or even those who are dealing with important safety equipment have a very comprehensive and intensive training to pass very hard and difficult exams to get their license to work.

During the last decades the Probabilistic Safety Assessment has focused a great amount of efforts in testing the human errors and studying the human reliability. But those PSA have been focused just only in safety staff.

1. Regarding Security there are several groups of people working in a Nuclear Facility who can be grouped in:

- a. Security operators dealing with Control Alarm Stations functions, Control Access process, Patrolling, etc.
- b. Maintenance Operator of Security Systems, repairing, fixing and caring not only the hardware, also the software.
- c. Security Staff working under the Security Manager who are writing procedures, organizing training and exercises, dealing with the rest of groups, etc.
- d. Response Units who could be inside the facility, as it happen in many countries.

This paper of Human Factor identifies the roles of everyone of those 4 groups who have a direct interaction with the Physical Protection System at the Nuclear Facility.

2. They should have to pass a trustworthiness process before getting the job, a training course about Security Regulation, the knowledge of the Physical Protection Plan and Procedures, their functions and responsibilities in case of contingency, etc. Should there be a minimum requirement in the Regulations for those subjects?

This paper of Human Factor reviews those minimum requirements for those 4 groups that should make evident they get before starting to work in a nuclear facility.

1. They should also perform those functions in exercises to test the security of the Facility and their roles. Is there any comprehensive exercise in which all of them could perform their capabilities? Should it be a requirement? How is in the real life?

This paper of Human Factor claims about the necessity and obligation of performing partial drills, table tops and comprehensive exercises to test all the security functions and people who have been involved.

2. Who and how is controlling the behavior of those Security 4 groups? Because everyone of them are potential insiders. In just a few of countries there are some kind of Behavioral Observation Programs, but is that enough?

This paper of Human Factor tries to find some general ways to deal with that subject

## State

Spain

## Gender

Male

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