

NUCLEAR SECURITY

COURSE IN ENGLISH

EXAMPLE  
OF TRAINING  
PROVIDED

OUR EXPERTS ENHANCE YOUR SKILLS

## Implementing Nuclear Safeguards in practice

Code: CO1053

Session:  
On demand

Registration deadline:  
3 months prior to course

Duration: 5 days  
Certificate of attendance  
will be issued to participants  
who attend the full course.

Price: Contact us!



### Objectives

Increase the knowledge of the participants:

- On the importance of implementing fully safeguards obligations to facilitate the effective and efficient application of safeguards for the country;
- On the continued evolution of safeguards through modern technology and newly developed concepts.

### Target Audience

Professionals involved in nuclear safeguards activities employed in National Regulatory Authorities (NRA) and Technical Support Organizations (TSO).

### Learning Outcomes

Participants will be able to:

- Understand the international and EURATOM safeguards agreements including the Additional Protocols and the Small Quantity Protocols;
- Contribute to the practical implementation of safeguards in their country in applying the principles of nuclear material accountability and control;
- Understand differences and interfaces between nuclear safeguards and nuclear security;
- Describe safeguards techniques and to practically use some of them.

TO BE DESIGNED ACCORDING  
TO YOUR EXPECTATIONS

### Prerequisites

Participants should have basic knowledge in the fields of nuclear energy and nuclear safeguards.

### Examination

Knowledge testing (multiple choice exam) will be performed on the full course content and successful candidates will be issued with a Knowledge Certificate

### Teaching methods

Lectures, discussions and practical sessions are included.

Working group exercises are supervised by experienced TSO experts.

A USB stick containing the course material will be provided.

### Program

The course focuses on implementing international safeguards in practice. The 5-day training module will cover the following subjects:

#### 1/ Application of safeguards

- Non-proliferation treaty and IAEA verification;
- IAEA safeguards agreements;
- Regional control;
- Small quantity protocol (SQP);
- Additional protocol and declaration.

#### 3/Case study

- Measures taken by country's Nuclear Regulatory Authorities for establishing safeguards infrastructure and providing operational support for verification activities;
- Principles of nuclear material accountability and control.

#### 2/Verification activities

- EURATOM inspections;
- Non Destructive Assay – gamma-ray spectrometry;
- Non Destructive Assay – neutron counting;
- Destructive assay – Containment and surveillance and monitoring; • Hands-on demonstration of the relevant equipment.

#### 4/ Safeguards & Security interface

- Information on the legal framework for nuclear security and on the categorization of nuclear material for nuclear security purposes;
- Principal differences and possible synergies between nuclear safeguards and nuclear security.

5/ At the end of the module, a roundtable discussion session addresses issues identified by participants. It is followed by an evaluation during which participants give their impressions of the module, with a review of the degree to which the needs expressed on the first day of training were met.

Contact :  
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Online catalogue  
<https://formation.irsn.fr/en/>