



# Regulatory Control of Nuclear Sites: Inspection of I&C and Electrical Systems

**Session:** Consult on-line training schedule

**Registration deadline:** 3 months prior to course

**Duration:** 5 days

Certificate of attendance will be issued to participants who attend the full course.

**Price:** €2,500 per participant

**Code:** CO1019

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## Contact

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## Online catalogue

[www.enstti.eu/training-catalogue](http://www.enstti.eu/training-catalogue)

## 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 and technical visits are supervised by experienced TSO experts.

A USB stick containing the course material will be provided.

## OBJECTIVES

To provide trainees with an understanding of the regulatory control processes related to reactor instrumentation, plant control and electrical systems.

## TARGET AUDIENCE

This training is intended for:

- Engineers wishing to acquire general knowledge of I&C and Electrical Systems technology and operation, and their role in the safety of nuclear facilities in normal and accident conditions.
- Professionals from regulatory authorities and technical support organizations.
- Members of reactor operator/licensee professional staff.

## PREREQUISITES

Participants are expected to have basic knowledge in the area of nuclear and radiation science and technologies.

## LEARNING OUTCOMES

Participants will acquire:

- The fundamentals of instrumentation and control systems.
- The fundamentals of electrical systems.
- Insight into the differences between analogue and digital I&C systems and individual pros and cons for different applications.
- The ability to apply their knowledge and skills to the main digital components, both the ones currently used and those considered for use in future nuclear plants.
- A grasp of design and regulatory requirements.
- Knowledge about the state of the art on human-machine interfacing and computerized control rooms.
- A grasp of the competencies on main components and issues related to the electrical systems and networks in a plant.
- A grasp of the regulatory procedures needed to ensure a good level of compliance with safety requirements.

## PROGRAM

In addition to the general introduction, the 5-day training module will cover the following subjects:

- The basis for inspection and its role in the overall licensing process.
- The importance of reactor electrical systems and instrumentation/control systems in safety.
- Design, conduct, reporting and follow-up of inspection programs for SSCs during design, manufacture, construction, testing, commissioning and operation.

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.