

## VIEWS



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# Competence and responsibility: an NRA view

**T**he mission of a nuclear regulatory authority (NRA) such as the Consejo de Seguridad Nuclear (CSN) is to protect workers, the public and the environment from the harmful effects of ionizing radiation, to ensure that nuclear and radioactive facilities are operated safely by their licensees, and to take measures to prevent and mitigate radiological emergencies, whatever their origin.

There can be no question today that a competent and efficient NRA must be a knowledge-based organization. CSN's vision is that we must be technically qualified in order to demonstrate the necessary rigor, efficiency and effectiveness of our decision-making.

Accordingly, the regulatory staff must master a wide range of knowledge, skills and attitudes to perform their activities adequately. For CSN, these attributes are summed up by a statement of our organizational values: competence and responsibility.

In this context, it is very important for NRAs to be involved in international programs for technical, legal and practical training and tutoring (T&T) regarding nuclear safety, nuclear security and radiological protection. The main objective of these initiatives is to create and develop competencies supplementing the education and training of junior experts in NRAs and TSOs.

Clearly, this is the case at ENSTTI, which is why CSN is collaborating in the ENSTTI consortium. In my view, an experienced NRA must participate in this kind of project, considering the importance of sharing and disseminating expert knowledge and know-how between European and non-European countries, not to mention the feedback from operating experience.

CSN coordinates Spanish participation in these activities via CEIDEN, our national platform for R&D in nuclear fission. CEIDEN has an active group dedicated to training activities (CEIDEN F+) with a wide range of capacities and a vast catalogue of training courses. This approach allows the best Spanish experts to be assigned to each specific T&T activity.

CSN plays a dual role: firstly, we ensure the suitability of Spanish participation in each activity from the point of view of NRA and TSO personnel training; and secondly, when the direct involvement of the regulator is required, we participate in T&T activities by providing advice, teachers, tutors, teaching materials, etc. This approach allows CSN to dedicate a moderate number of human resources to our participation. Additionally, it is our intention to train our own junior staff through the ENSTTI courses.



## LANDMARKS

Participants  
from January to September 2014

**76** from Europe  
**111** from Asia  
**39** from Middle East  
**15** from Africa  
**7** from Latin America

**248** trainees  
and tutees

## STRATEGY

# SHIFTING GEARS

As ENSTTI continues to design new courses, devoted in particular to the legal and regulatory aspects of nuclear safety, and works to implement the INSC II contract with the EC, this is a good time to look back on the major milestones in the Institute's growth strategy.

Originally seen as a driver for harmonizing training among the ETSO member TSOs, ENSTTI rapidly expanded its target audience by offering training and tutoring (T&T) courses to all European NRAs and TSOs. Then the Institute opened its courses to non-European organizations in response to the knowledge dissemination strategy expressed by the EC as part of the Instrument for Nuclear Safety Cooperation (INSC). From that moment, ENSTTI played an even more strategic role by expanding its initial aim of providing T&T courses to include the design of career paths in the framework of the NUSHARE and SITEX European platforms.

Thus, defining and preparing the future "professional passport" of the nuclear safety expert has become a pivotal part of ENSTTI's activity and allows the Institute to tailor its T&T syllabus to the qualification requirements of various organizations. This strategic shift is also reflected in the extension of ENSTTI's T&T offering, with new courses on the legal and regulatory aspects of nuclear safety added to existing courses on the scientific and technical aspects of this subject.

ENSTTI will pursue these developments in the context of the INSC II contract with the EC, in particular by looking for new international partnerships to meet T&T needs across the globe even better. HIGHLIGHTS will report on our progress in this area in forthcoming issues.

**Didier Louvat**  
Managing Director, ENSTTI

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### TRAINERS AT THE ENSTTI COURSE ON THE LEGAL AND REGULATORY BASIS FOR NUCLEAR AND RADIATION SAFETY

■ **Kevin Allars**

*Former senior regulator of the UK nuclear regulatory authority and former reactor manager*

■ **Joseph-Michael Leblanc**

*Senior lawyer of ASN, France and former IAEA staff member*

■ **Phil Metcalf**

*Former head of waste and spent fuel safety with the IAEA and senior regulator from South Africa*

■ **Jean-Paul Samain**

*Former head of the Belgian nuclear regulatory authority*

■ **Jack Valentin**

*Former Scientific Secretary of the International Commission on Radiological Protection and senior regulator from the Swedish nuclear regulatory authority*

## FOCUS

# A NEW COURSE ON THE LEGAL AND REGULATORY ASPECTS OF NUCLEAR SAFETY

There is broad consensus on the science-based nature of nuclear safety and the need to constantly update knowledge and skills in this area through research programs and the systematic harvesting of operating experience. Awareness of the legal and regulatory aspects of nuclear safety is equally essential to fulfilling the regulatory function efficiently. This is why ENSTTI has created a course specifically dedicated to this subject.

The nuclear regulatory process needs a competent legal basis and a regulatory approach with a sound philosophical foundation combined with good scientific and engineering principles. Equally important is that regulatory authorities and the safety and licensing departments of nuclear facility operators are staffed by people who have a good understanding of these legal and technical dimensions, together with deep insight into the principles and philosophies of nuclear and radiation safety and protection.

### Getting the broader picture

The majority of people recruited to work in the nuclear safety and licensing functions, whether by the operator organizations, regulatory bodies or technical support organizations, are generally professional engineers, scientists and lawyers. These are necessary disciplines for much of the technical and legal work involved, but they alone are not enough to establish and implement comprehensive nuclear safety and regulatory functions. In addition to the professional discipline skills, it is important for staff to gain an appreciation of the broader dimensions of nuclear safety and regulation, encompassing all the scientific, technical, philosophical and legal aspects, together with their interactions and interdependencies.

### Creation of a dedicated ENSTTI training course

Considerable experience has been amassed in recent decades as safety principles and lessons have been learned from often extremely costly and sometimes tragic experience. Many of the lessons learned have been incorporated into international safety standards and recommendations contributing to the evolution of philosophies in this area. The ENSTTI training course on the legal and regulatory basis for nuclear and radiation safety has been designed to provide participants with an understanding of the nature of radiation hazards and the radiation protection principles that have been adopted at the international level. It introduces the radiation and nuclear safety hazards associated with every aspect of nuclear and related technologies, along with the legal approach developed as a basis for the nuclear and radiological regulatory process. The course then presents approaches and experience in applying the regulatory process to different industrial activities, such as nuclear power plant development and operation, uranium mining and processing, radioactive waste management, medical uses of radiation, and the transportation of radioactive material.

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## Positive feedback from the first session

First held in March 2014, the course consists of lectures, exercises and discussion sessions and concludes with an examination. It was presented by a number of highly experienced persons (see box), who received very positive feedback from the participants.

## SOURCING

# A SUCCESSFUL START



Besides technical knowledge in nuclear safety and radiation protection, capable regulators need high-level skills in the complex legal and regulatory provisions that govern these activities. With its new course, ENSTTI aims to meet this need.

The first course devoted to the legal basis and regulatory processes for nuclear and radiation safety, which took place near Paris in March 2014, earned positive assessments from the 18 trainees who took this 5-day session taught by 3 senior lecturers.

The diversity of countries represented – Armenia, Egypt, Indonesia, Lithuania, Malaysia, Morocco, Netherlands, Slovakia, UAE and Vietnam – is a clear sign of the interest in such topics from South-East Asia to Western Europe. Drawing on this successful start, a second session will be held in January 2015 to meet demand from several regulatory authorities.

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## ORIGIN OF PARTICIPANTS



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