Project summary

European Network on Education and Training in RAdiological Protection

Introduction

Radiation protection is a major challenge in the industrial applications of ionising radiation, both nuclear and non-nuclear, as well as in other areas such as the medical and research area. As is the case with all nuclear expertise, there is a trend of a decreasing number of experts in radiation protection due to various reasons. On the other hand, current activities in the nuclear domain are expanding: the nuclear industry faces a so-called "renaissance", high-tech medical examinations based on ionising radiation are increasingly used, and research and non-nuclear industry also make use of a vast number of applications of radioactivity.

Within this perspective, maintaining a high level of competency in radiation protection is crucial to ensure safe use of ionising radiation and the development of new technologies in a safe way. Moreover, the perceived growth in the different application fields requires a high-level of understanding of radiation protection in order to protect workers, the public and the environment of the potential risks. A sustainable Education and Training (E&T) infrastructure for radiation protection is an essential component to combat the decline in expertise and to ensure the availability of a high level of radiation protection knowledge which can meet the demands in the future.

Although radiation protection professionals have a variety of responsibilities and specific professional aims, there is a common need for:

- basic education and training providing the required level of understanding of artificial and natural radiation;
- the opportunity to update and test acquired knowledge on a regular basis (Continuous Professional Development); and
- a standard for the recognition of skills and experience,

In addition, complying with specific European directives concerning the implementation of a coherent approach to education and training becomes crucial in a world of dynamic markets and increasing workers' mobility.

Today's challenge involves measures to make the work in radiation protection more attractive for young people and to provide attractive career opportunities, and the support of young students and professionals in their need to gain and maintain high level radiation protection knowledge. This can be reached by the development and implementation of a high-quality European standard for initial education and continuous professional development for Radiation Protection Experts (RPEs) and Radiation Protection Officers (RPOs).

For the purposes of this project, the Radiation Protection Expert, can be defined as:

"a person having the knowledge, training and experience needed to give radiation protection advice in order to ensure effective protection of individuals"

and the Radiation Protection Officer as:

"An individual technically competent in radiation protection matters relevant for a given type of practice who is given the role of overseeing the application of relevant radiation protection standards in the workplace".

With respect particularly to the RPE a methodology for mutual recognition on the basis of available EU instruments, such as the European Qualification Framework (EQF) and/or the Directive 2005/36/EC is also seen as enhancing the profile of such professionals.

Objectives

The overall objective of this project is to develop European high-quality "reference standards" and good practices for education and training (E&T) in radiation protection (RP), specifically with respect to the RPE and the RPO. These "standards" will reflect the needs of the RPE and the RPO in all sectors where ionising radiation is applied (nuclear industry, medical sector, research, non-nuclear industry). The introduction of a radiation protection training passport as a mean to facilitate efficient and transparent European mutual recognition is another ultimate deliverable of this project.

With respect to the RPE the overall objective is to be achieved by addressing both education and training requirements. In the field of education this project deals with high-level initial programmes, mainly followed by students and/or young professionals. It is foreseen to analyse the European Master in Radiation Protection course, which will start in September 2008. This Master is organised by the consortium of universities as established in the ENETRAP 6FP. Broadening of the consortium and quality analysis of the providers and the content of the modules can be performed according to, primarily, the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ENQA) and, secondly, to the ENEN standards.

In the field of RPE training the ultimate goal is the development of a European mutual recognition system for RPEs. Hereto, the ENETRAP Training Scheme initiated as part of the ENETRAP 6FP will be used as a basis for the development of a European Radiation Protection Training Scheme (ERPTS), which includes all the necessary requirements for a competent RPE. In addition, mechanisms will be established for the evaluation of training courses and training providers. These actions will contribute to facilitate mutual recognition and enhanced mobility of these professionals across the European Union.
With respect to the RPO role the desired end-point is an agreed standard for radiation protection training that is recognised across Europe. Data and information obtained from the ENETRAP 6FP will be used to develop the reference standard for radiation protection training necessary to support the effective and competent undertaking of the role.

Furthermore, attention is given to encouragement of young, early-stage researchers. In order to meet future needs, it is necessary to attract more young people by awaking their interest in radiation applications and radiation protection already during their schooldays and later on during their out-of-school education (university or vocational education and training). Radiation protection experts and officers work more and more on a European level. It is therefore important bringing together all the national initiatives at a European level: tomorrow’s leaders must have an international perspective and must know their colleagues in other countries.

It is envisaged that the outcome of this project will be instrumental for the cooperation between regulators, training providers and customers (nuclear industry, medical sector, research and non-nuclear industry) in reaching harmonization of the requirements for, and the education and training of RPs and RPOs within Europe, and will stimulate building competence and career development in radiation protection to meet the demands of the future.

Specific objectives of the project are:

i) Develop the European radiation protection training scheme (ERPTS) for RPE training;

ii) Develop a European reference standard for RPO training;

iii) Develop and apply a mechanism for the evaluation of training material, courses and providers;

iv) Establish a recognised and sustainable ERPTS "quality label" for training events;

v) Create a database of training events and training providers (including On-the-Job-Training) conforming to the agreed ERPTS;

vi) Bring together national initiatives to attract early-stage radiation protection researchers on a European level;

vii) Develop some course material examples, including modern tools such as e-learning;

viii) Develop a system for monitoring the effectiveness of the ERPTS;

ix) Organise pilot sessions of specific modules of the ERPTS and monitor the effectiveness according to the developed system;

x) Development of a European passport for Continuous Professional Development in Radiation Protection.