



In this isseu more about the Second and the Third EUTERP Platform Workshop, Nuclear Education and Training in the new "Energy Policy for Europe"

#### Editorial

This editorial is a bit different from the editorials of the earlier issues of the Newsletter. At the moment that you read this Newsletter, I will be retired and my colleague Folkert Draaisma has taken over the responsibilities to coordinate the activities of the Platform in the last year of the contract period.

This issue deals mainly with the outcome of the second EUTERP workshop, which was again held in Vilnius, Lithuania, 23-25 April 2008. Just as the first workshop it was well attended by 67 participants, coming from 22 countries (19 Member States, 1 Candidate State and 1 Associated State of the European Union, and 1 country from outside the European Union and from 5 international organisations and networks. The workshop was again a real success, thanks to the excellent work of the staff of the Karolina Hotel and Conference Centre, the staff of the Radiation Protection Centre RSC (in particular Gendrutis Morkūnas) and not in the least to the active contribution of all participants, in particular during the working group and plenary discussions.

As you can read elsewhere in this Newsletter, the outcome of the workshop is laid down in recommendations to the European Commission that are of importance for the revision process of the Euratom BSS, namely to replace the old definition of the Qualified Expert by a new definition for the RPE, to include a definition of the RPO, and to include a requirement on the employer that sufficient arrangements are in place to provide effective radiation protection. Furthermore, recommendations



are made to develop guidance on the roles, duties, competences and recognition of RPE and RPO; on training and instruction of Radiation Workers; on recognition of training providers; and to develop a European Reference Training Programme. The results of the workshop have been discussed in a meeting of the Steering Committee. As a follow-up, it was concluded that the recommendations will be further elaborated by the Steering Committee during the summer period and then submitted to the Group of Experts according to Article 31 of the Euratom Treaty that is preparing the revision of the Euratom BSS.

The second workshop also addressed the issue of sustainability of the Platform after the contract with the European Commission will be ended. From the discussion it can be concluded that there is a great interest in the continuation of the Platform. Several countries expressed their willingness to support the coordinating activities in the period after 1 April 2009, but it was mentioned that for a final decision more details need to be presented, such as clear objectives, structure, budget, and the time for which support is requested. Such a document has been prepared and will be distributed to the EUTERP members in short time.

During the workshop we received two proposals to organise the third workshop in spring 2009, namely in Turkey and in Portugal. The Steering Committee took notice of the proposals and has decided on the venue of this third workshop. You can read the outcome of this decision further in this Newsletter.

I am confident that we have established a firm base for a successful and self-sustainable EUTERP Platform. For me it was a real pleasure to work with you to achieve this goal, and I want to thank all of you for that. I was very much surprised by the nice words that were addressed to me at the end of the second workshop and I would like to thank you once again for the presents. They will remind me of the good spirit of work in this project. I am sure that Folkert Draaisma will continue with the same spirit and bring the project to a successful end.

I wish you all the best for the future.

Jan van der Steen EUTERP Coordinator

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#### **Editorial II**

First of all I like to thank Jan for his tremendous effort for EUTERP. In fact, he more or less created EUTERP on his one. For me he is mister EUTERP, as I mentioned in my 'thank you' speech in Vilnius (see picture).

In daily life I'm the Radiation Protection Supervisor for NRG in Petten, the Netherlands (www.nrg.eu). That means I'm responsible for radiation protection policy and supervision for three licenses according to the Dutch Nuclear act. With the High and Low Flux Reactor, Hot cell and other radiological laboratories, a Molybdenum Production facility, a waste storage facility this is a busy job. Therefore, project management matters will be dealt with by mrs Heleen van Elsäcker - Degenaar.

In this Newsletter you will find the Summary and Recommendations of the 2nd Workshop and the announcement of the 3rd Workshop, which will be held in Antalya, Turkey, 16 - 18 April 2009. The programme will be available soon, but clearly the sustainability of the EUTERP Platform after the 1st of April 2009 will be an important issue!

I hope to see you all in Turkey next your and wish you and your families a Merry Christmas and Happy New Year!

Folkert Draaisma Email: draaisma@nrg.eu



# Summary and Recommendations 2nd Workshop

#### RECOMMENDATIONS

Each Working Group produced conclusions and recommendations, and gave a report back on the final day of the Workshop. The output of the Working Groups was collated to produce the formal recommendations of the Workshop, as listed below.

EUTERP functions should be strengthened and clearly defined.

## Recommendation 1: Requirement for effective radiation protection

EUTERP believes that the definition of the QE is not focussed enough leaving a range of interpretations open. Therefore, it is recommended that the European Commission places a requirement on the employer in the revised BSS that sufficient arrangements are in place for the provision of expert advice from a recognized Radiation Protection Expert, relevant to the licensee's needs, and that the necessary management arrangements are in place sufficient to ensure compliance with the requirements of the BSS. Where appropriate, the management arrangements should include the designation of Radiation Protection Officers.

#### **Recommendation 2: Definition of the RPE**

It is recommended that the European Commission, when revising the BSS, replaces the definition of the QE by a new definition of the RPE as below, to reflect more accurately the provision of expert advice.

Persons having the knowledge, training and experience needed to give radiation protection advice in order to ensure effective protection of individuals, whose capacity to act as a radiation expert for specific practices - under discussion - is recognized by the competent authorities.

Both the IAEA and the IRPA are in a process of revising current definitions of the QE and RPE respectively. EUTERP has taken notice of the definition as proposed by IRPA for approval at the 12<sup>th</sup> IRPA conference, and looked if the proposed EUTERP and the IRPA definitions were compatible. The definition proposed by EUTERP is, though different, consistent with the proposed definitions of the before mentioned organisations. The European Commission should take the opportunity to discuss its considerations on the two proposed definitions at the 12<sup>th</sup> IRPA conference.

#### **Recommendation 3: Definition of the RPO**

It is recommended that the European Commission, when revising the BSS, includes a new definition of the RPO as below, to reflect the difference with the RPE and to describe his supervisory role.

An individual technically competent in radiation protection matters relevant for a given type of practice who is designated by the registrant or licensee to oversee the application of the requirements of the Standards.

RPE and RPO are functions and not necessarily performed by two different persons. The RPE function focuses on (independent) advice and judgement while RPO is a supervisory function. EUTERP believes that making a clear distinction between these functions, will simplify the discussion on qualifications of radiation protection professionals and therefore facilitate mutual recognition. EUTERP believes that the presence of both these elements in the definition of the QE is one of the reasons for the uncertainties and difficulties in the interpretation of the QE in relation to the different systems in place in the Member States.

What will be the role on the RP unit of this RPO? Should be clarified.

What are the relations between QE, RPE and RPO?

### Recommendation 4: Guidance on the roles and duties of the RPE and RPO

Arising from previous experience with the definition of the Qualified Expert in the Standards and its uncertainties and differences in interpretation EUTERP believes additional guidance is needed on the roles and duties related to the newly defined functions Radiation Protection Expert and Radiation Protection Officer in the revised BSS. This guidance should clearly indicates the

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dividing line between the advisory and supervisory functions. The guidance should make use of existing documents such as IAEA Safety Guide RS-G-1.4 and IAEA Safety Report 20. When developing such guidance, and as an example, it is also recommended to take the description of the roles and duties of the Medical Physics Expert into account, as developed by EFOMP. EUTERP is seen as the main source of input for the preparation of such guidance.

## Recommendation 5: Guidance on the competencies of the RPE and RPO

It is recommended that the European Commission provides guidance on the core competences of the RPE and RPO. The core competences should be built on qualifications that include a minimum educational background, training, work experience and the ability to give advice, or to supervise, respectively. The guidance should include elements of suitability, and should make use of existing documents such as IAEA Safety Guide RS-G-1.4 and IAEA Safety Report 20. EUTERP is seen as the main source of input for the preparation of such guidance.

## Recommendation 6: Development of the European Reference Training Programme

The Workshop noted the proposal for a 7<sup>th</sup> Framework Programme to develop a European Reference Training Programme (ERTP). The Workshop considered the ERTP as a very promising instrument for comparing national training programmes, which could be a basis for mutual recognition of RPEs, as well as a basis for international agreement on qualifications of RPOs. The Workshop encourages such a project and recommends the EUTERP Platform to use the results for discussion in upcoming workshops, with the aim of getting international agreement on the implementation of the ERTP in the evaluation of training programmes.

#### **Recommendation 7: Recognition of the RPE and RPO**

It is recommended that the European Commission provides guidance on a methodology for recognition of the qualifications of the RPEs, based on an evaluation of the skills and practical competences of the RPE. EUTERP provides input for this guidance. The ERTP could be instrumental in performing an evaluation of the candidate's gualifications.

The recognition should have a limited validity in time. It is recommended that the guidance should include a system of Continuous Professional Development to ensure that the competency and suitability of the RPE is kept up-to-date.

Taking into account that it is recommended that RPE is a function, the development of a system of mutual recognition of RPEs by using the general system of "recognized professions" is considered to be too complicated in that respect. However, it is suitable to certify the RPE function and EUTERP will play a main role in determining the methodology in this recognition or certification process to facilitate mutual recognition.

The Workshop concluded that it is not useful to require a recognition system for RPOs, as this would increase the administrative burden on regulatory bodies, licensees and RPOs without improving the level of radiation protection. The need for recognition of RPOs could best be left to the individual countries. However, this leaves unimpeded that requirements on qualifications and competences of the RPO should be developed, as recommended in Recommendation 4. Here an important role for EUTERP is foreseen, in the development process and to facilitate transnational communication or even provide advice

on the acceptance of RPOs by national authorities when moving from one MS to another.

#### **Recommendation 8: Radiation Workers**

The Workshop concluded that it is not feasible to require a recognition system for Radiation Workers. Instead of that, it is recommended that the European Commission provides guidance on what constitutes adequate training and instruction of Radiation Workers to support their competence. This training and instruction should be appropriate to the risks associated with the practice. It was noted that general guidance on training of exposed workers is also being considered in projects within the 7<sup>th</sup> Framework Programme. There already is a proposal, ENETRAP II, from which the results can be taken into account when developing guidance. The input for the guidance mentioned above might be one of the topics in the 3rd EUTERP workshop.

#### **Recommendation 9: Recognition of training providers**

A need of recognition of training providers was recognized during the Workshop. To what extend this should be done is not clear yet. It is recommended that guidance on the recognition of training providers in radiation protection should be developed with input from EUTERP. This guidance should include a guality management system, including a description of facilities, materials and equipment, and a mechanism for maintaining training materials up-to-date, and demonstration of sufficient, appropriate and up-to-date expertise within the pool of trainers. It is recommended that existing guidance material as developed by the IAEA should be used as a basis. The practical development of these tools can be done within specific projects, e.g. within the ENETRAP II project where all practical aspects of providing a training will be elaborated including the organisation of a training itself. It can also be a future product of EUTERP. (At this stage EUTERP is not yet a legal entity that can submit proposals to the EU.) EUTERP can be the way to achieve QA or a 'QA-stamp' for training material and training providers, e.g. by 'ranking' ENETRAP results.



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#### Third Workshop in Turkey

Turkey was chosen to host the 3rd EUTERP Workshop. We have finalized the contracts with the local organisers and set the date at 16 - 18 April 2009. The workshop venue will be the Green Palace hotel. I invite you to visit their website

(<u>http://www.ichotels.com.tr/greenpalace/tr/index.html</u>) to get in the mood for our 3rd Workshop! The workshop fee will be approximately the same as for our 2nd Workshop in Vilnius, and will include three nights accommodation and breakfast, lunch and dinner.

The programme will be published soon, together with a request to submit abstracts for oral and poster presentations. If you already have ideas or requests to address certain topics at the Workshop, please send your proposals to: elsacker@nrg.eu.

Correction: In the previous Newsletter #4 Yuliya Dimitrova, European Commission, D.-G. TREN, Unit H4 was the author of "Education and Training in the revision of Basic Safety Standards directive and recast of radiation protection legislation" instead of Stefan Mundigl.

#### Nuclear Education and Training in the new "Energy Policy for Europe"

GEORGES VAN GOETHEM, EC/DG RTD, Energy (Euratom) georges.van-goethem@ec.europa.eu

### Towards a "European Strategic Energy Technology Plan" (including nuclear fission)

In response to the conclusions of the European Council of March 2006, the Commission adopted the so-called *Energy Package* on 10 January 2007. It was the subject of the Communication *An Energy Policy for Europe* (EPE). Of particular importance is the accompanying Communication *Towards* a *European Strategic Energy Technology Plan* (SET plan) <sup>1</sup> .The aim of the SET plan is to provide an objective perspective on the different energy technologies which will or might become available between now and 2050 to tackle the "energy supply issue" while respecting the environment (CO<sub>2</sub> and GHG free sources) and being competitive.

For the preparation of the SET Plan 2008, a wide consultation was organised across the EU about the need for "*European Industrial Initiatives*". On that basis, the EC proposed on 22 November 2007 to launch six priority initiatives, starting in 2008, one of them being a *Sustainable nuclear fission initiative*. This EC proposal was then endorsed by the recent European Council of 13 - 14 March 2008 (Brussels)<sup>2</sup>.

Keeping the nuclear option open means also maintaining an adequate skills base to ensure sufficient personnel in research organisations as well as in nuclear installations. This is a concern shared not only by the EU (in particular, by the Euratom Framework Programme FP-7 (2007 - 2011)) but also by OECD/ NEA and by IAEA.

To support the above SET Plan in the specific area of nuclear fission and radiation protection, a European Technology Platform

- 1\_\_\_http://ec.europa.eu/energy/energy\_policy/doc/19\_strategic\_energy\_ technolgy\_plan\_en.pdf
- 2 http://www.consilium.europa.eu/ueDocs/cms\_Data/docs/pressData/en/ ec/99410.pdf

was created in September 2007, namely: the Sustainable Nuclear Energy Technology Platform (SNE-TP) <sup>3</sup>. All nuclear fission stakeholders come regularly together with the aim to produce a Strategic Research Agenda (SRA) and a Deployment Strategy (DS), including policy framework. A special group of the SNE-TP is also devoted to nuclear Knowledge Management and Education & Training (E&T).

## Focussing on nuclear education (that is: basic or life-long learning)

The goal of Euratom in this specific area is to offer a number of instruments that help produce top-quality teaching modules at higher education level. These modules are then assembled into Masters programmes or higher level training packages that are jointly qualified and mutually recognised across the EU. This is done within the DG RTD programme FP-7 (including *PEOPLE*<sup>4</sup>), in collaboration with the DG EAC *Lifelong Learning Programme* (2007 – 2013) <sup>5</sup>.

The Euratom approach for nuclear E&T is naturally in line with the Bologna mechanism (ERASMUS). More specifically, its strategy is based on the following four objectives:

- MODULAR COURSES AND COMMON QUALIFICATION APPROACH (offer a coherent E&T framework and ensure top-quality for each module)
- ONE MUTUAL RECOGNITION SYSTEM ACROSS THE EUROPEAN UNION (e.g. European Credit Transfer and accumulation System of ERASMUS /ECTS/)
- MOBILITY FOR TEACHERS AND STUDENTS ACROSS THE EU (prepare the "internal market" for free circulation of nuclear experts)
- FEEDBACK FROM "STAKEHOLDERS" (BOTH SCIENTIFIC AND FINANCIAL) (involve the "future employers" in the process, thereby getting additional funding).

In order to achieve the above objectives, a non-profit making association (*under French law of 1901*) was formed in September 2003: this is the "*European Nuclear Education Network*" (ENEN) <sup>6</sup>, a spin-off of the homonymous FP-5 (1998 – 2002) project. As of December 2007, the membership of the ENEN Association consisted of 44 members. ENEN can be considered as an important step towards the harmonisation of training activities in nuclear fission and radiation protection in the EU-27.

If mobility between EU countries is to be promoted for higher education and lifelong learning, a European Qualifications Framework is needed. This is the scope of the European Qualifications Framework (EQF)<sup>7</sup>, adopted by the European Parliament in October 2007 (to be formally adopted by the Council in 2008). The EQF will provide a common language to describe qualifications which will help Member States, employers and individuals compare qualifications across the EU's diverse education and training systems.

## Focussing on nuclear training (that is: learning a particular skill)

In line with the four above objectives of ENEN, Euratom FP-6 (2003 – 2006) launched a number of strategic studies about training needs in specific areas of reactor engineering and safety design, waste management (including Partitioning and Transmutation

- 4 http://cordis.europa.eu/fp7/people/home\_en.html
- 5 http://ec.europa.eu/education/programmes/llp/index\_en.html
- 6 www.enen-assoc.org.
- 7 http://ec.europa.eu/education/policies/educ/eqf/index\_en.html

<sup>3 &</sup>lt;u>www.snetp.eu</u>

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and geological disposal) and radiation protection (including applications of ionising radiations). The Radiation Protection community, in particular, examined solutions to the problem of mutual recognition of Qualified Experts in Radiation Protection, in connection with the Euratom Basic Safety Standards. This problem is at the heart of the FP-6 project ENETRAP (looking at Euratom training aspects) and of the EUTERP platform (in view of a Euratom Directive).

As it has been reminded above, in the area of higher level education, ERASMUS provides a series of well tested tools (e.g. ECTS, based on the "Bologna" mechanism). In the area of training, however, where a great variety of stakeholders are involved, the problem is more complex, because there is no such mechanism as "Bologna". Appropriate EU instruments to develop the requested mechanism could be the (above) European Qualifications Framework (EQF) or/and the (below) Community Directive 2005/36/EC.

The rights of EU citizens to establish themselves or to provide services anywhere in the EU are fundamental freedoms in the Single Market. National regulations which only recognise professional qualifications of a particular jurisdiction present obstacles to these fundamental freedoms. This fact was recognised by the Internal Market Commissioner who proposed the Community Directive 2005/36/EC 8, which came into effect on 20 October 2007. In line with the Lisbon strategy of 2000 (revised in 2005)<sup>9</sup>, the purpose of this Directive is to ensure the free movement of qualified persons, thereby contributing to the development of the knowledge-based economy, the flexibility of labour markets and improved public services. This Directive applies whenever the profession at stake is regulated in the host MS, which is the case, in particular, of the "qualified experts" in radiation protection.

8 http://ec.europa.eu/internal market/gualifications/index en.htm 9 http://europa.eu/scadplus/leg/en/cha/c11325.htm

#### Conclusion/involve all stakeholders in the discussions about nuclear E&T

All Community actions in nuclear education and training (E&T) at higher education level, be it at the initial stage (e.g. young graduate students) or for career perspectives (e.g. continuous professional development), should be considered in the context of the Euratom nuclear research and training Framework Programme. The SNE-TP provides also a series of instruments to boost these actions in the wider context of the new Energy Policy for Europe.

The problem of mutual recognition and accreditation across the EU Member States should be tackled, using all Community and national legal instruments. The Bologna mechanism is very useful to ensure the European convergence of academic curricula (ENEN). A new mechanism, however, should be developed to ensure the rights of EU qualified experts (e.g. in radiation protection) to establish themselves or to provide services anywhere in the EU. This might require a new type of

Community actions (multi-disciplinary and multi-sectoral).

To be successful, the above Community actions should naturally be discussed and agreed upon (and preferably also co-financed) by all stakeholders concerned, that is:

- the nuclear research organisations (public and private)
- the systems suppliers (e.g. nuclear vendors, engineering companies, etc)
- the energy providers (e.g. electric utilities, heat and/or hydrogen vendors, etc)
- the regulatory bodies and associated technical safety organisations (TSO)
- the education and training institutions, and, in particular, the universities
- the civil society and the international institutional framework (IAEA and OECD).

#### Next year's events

EUTERP 3rd Workshop ETRAP

16-18 April 2009 Antalya, Turkey Autumn 2009 Lisbon, Portugal

**Best Wishes** 



The NRG project team Heleen van Elsacker, Folkert Draaisma and Cora Blankendaal

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