INTRODUCTION:

A detailed description of the EC FP7 funded project is provided through the following link:


Four main topics came out of the Madrid Workshop held on the 12 and 13th January 2012. These were taken forward for further consideration to the Manchester workshop.

These topics were:

1. Review learning outcomes
2. Identify clients for training
3. Review training scheme concept for generic and specific courses
4. Identify, agree and prioritise specific training modules

SUMMARY OF PRESENTATIONS DAY 1 JANUARY 17TH 2012:

The first two speakers reviewed the Radiation Protection Framework in the United Kingdom. (Colin Partington SRP and Charles Temple ONR).

Peter Cole (Liverpool University) and Pierre Scalliet (UCL Brussels) provided insights into practice and identified some of the key issues around Radiation Protection within the academic research and healthcare environment.

Andy Bradley (Nuclear Medicine Centre CMUH) highlighted the optimisation and justification issues that influence medical practice and strategic decisions in the medical sector. Patient litigation costs have pushed towards a risk assessment approach to the priority areas.

There were strategic presentations by Joe McClusky (EDF Energy – operate most NPPs) and Michael Stephens (Medical Research Council). Joe reported on the strategic work of an industry led Human Performance working group set up by the Nuclear Licensees Forum to establish good practice through an industry developed standard. The intention is to get the standard recognised by INPO.

Michael spoke about a goal driven approach focusing on business leaders and engaging and communicating with them through business perspectives and strategic planning rather than safety and technical issues.

Jacqui Walker-Sutton (Human Performance and Leadership Ltd) spoke about an integrated approach to safety culture with a number of facets to be considered by top management in creating the right safety environment. Factors to influence senior managers include penalties, reputational loss and lack of
confidence in a failing organisation. She highlighted that the greater risk to nuclear companies may lie through their use of supply chain companies.

**SUMMARY OF PRESENTATIONS DAY 2 JANUARY 18TH 2012:**

Tricia Austin (National Skills Academy Nuclear - a body set up by Government but led by employers with a view to developing nuclear skills training at all levels in the United Kingdom) spoke about job taxonomy. She also spoke about reinforcing safety culture within training packages at all levels and provided an explanation of the development and implementation of the UK nuclear passport scheme and the difference it will make to skills development and utilisation by the industry.

Benny Carle (SCK) and Peter Storey (Dalton Nuclear Institute) spoke about Work Package 1 on the analysis provided within the TRASNUSAFe project by the EU Professionals survey and 5 regional workshops and how they will identify the training needs.

There was a presentation delivered over the telephone line by Julius Ziliukas from the Lithuanian Radiation Protection Centre who spoke about the regulatory regime and training arrangements in his country for radiation protection. He highlighted the prescriptive nature of the arrangements for training and examination that extended into some teaching establishments and border control.

**WORKSHOP OBJECTIVES**

As an outcome from the Madrid workshop held on 12 and 13 January, the TRASNUSAFe Project leader Professor Michel Giot set some key objectives for the Manchester workshop to consider in order to help progress the analysis of the training needs in the area of Safety Culture. These key objectives were;

- Review learning outcomes
- Identify potential client and user groups
- Review schematic approach to training
- Examine the content of the Generic module for Senior Managers
- Identify any new specific training topics and attempt to prioritise by their importance

**Review learning outcomes**

General discussion determined that the learning outcomes were largely satisfactory but lacked some specificity and so the following points were considered important;

- Need for an explicit reference to “leadership” and for it to be explained.
- Training on upwards leadership since senior managers will not always have the understanding of the nuclear business.
- Top down leadership / visionary leadership (instigator of change and strategist).
The phrase “Safety Culture” should be used instead of “RP, Safety and Safety Culture” as the medical sector is unlikely to recognise the meaning of nuclear safety and is more likely to recognise “Radiation Safety”. Safety culture is largely the same for all industries so good practice should be drawn in from across all industry sectors (process safety and chemical industry).

Training will be sector and country specific so the learning outcomes may need tuning.

Focusing on meaningful concerns for a Senior Manager are crucial for engagement and motivation and these should cover commercial success, business planning and how these are impacted by company culture.

Senior managers need a base level of understanding of their company operation and this needs to be supported by upward leadership. The word “Awareness” should be replaced by “Knowledge and understanding”

**Identify potential clients and user groups**

It was considered that early engagement with user groups that could be employers or professional bodies is crucial to ensure the integration of training approaches. Some key pointers to come out of discussion were;

- Organisation structure is important for identifying client attendees.
- All managers from the top down to supervisory levels.
- Across EU need may vary from country to country.
- Regulatory requirements and approval of qualifications by Professional Bodies will act as a driver for training needs.
- The sector to be covered is not just the nuclear industry and medicine but must go much wider to include defence, research, security, industrial radiography, sources, border control and emergency planning.

**Review schematic approach to training**

Basic concept is consistent with the approach used by other organisations with core training for senior managers. Less senior managers and team leaders also need to benefit from a truncated generic module followed by more specific training which depend on the specific sector they work in and their own role and responsibilities.

The training programme approach must be considered to be a key part of an integrated approach to safety culture improvement that is taken by an organisation. Therefore buy-in by potential users and those that can encourage and even require usage for example regulators and professional bodies, is important at an early stage of training module development. Targeting client groupings and tailor-
making specific courses to match needs are crucial. For example organisations going through significant change brought about by down-sizing or contractorisation will need to consider the effect on company culture.

Examine the content of the generic module for Senior Managers

The following points were considered crucial to the training of Senior Managers and need to be reflected by balancing the 2 days of training between background information on radiation protection and nuclear safety, theory on leadership and case studies;

- Avoid anything technical or safety related but deal in principles with a focus on justification and optimisation (history of nuclear is unnecessary)
- Distil technical and safety matters down to essential background information that helps provide understanding
- Focus on leadership and the need to provide a vision for safety culture improvement
- Provide them with the tools to bring about safety culture improvement and to assess progress
- Case studies should be used early on and interspersed through the training as a way of illustrating both how to do it and its benefits and detriments. Make sure case studies are meaningful to the points that are being put across.

Identify any new specific training topics and attempt to prioritise by importance

Two new possible topics were suggested

- Module on competency management
- Module on task observation techniques.

It was also suggested that the topic on Emergency Response should be linked to business continuity and that Senior Managers should be trained on “Command and Control”. The Management System topic that has its origins in the IAEA needs to adapt to changes they may be brought about by a re-drafting that is currently taking place by the IAEA. In addition the idea of a Contractor/compliance module was proposed. For information, the UK already has Transport Standards training.

Other Issues raised in discussion

A number of other issues were raised through discussions and these are listed below;

- Availability of course material outside the consortium - accessibility and openness.
• Training by distance learning.
• Demographic issues relating to client needs.
• Development of a business model for the delivery of the training packages.
• Where does TRASNUSA FE fit in with other European initiatives and link up with other organisations to share learning?
• Steering group input is vital from professional organisations, regulators and end users.

Note; Roger Coates (IRPA) informed the workshop that the 13th International Congress of the International Radiation Protection Association meets in Glasgow on 13-18 May 2012. There is a Technical Session TS3c on “RP System – Management and Culture” and a Symposia S3.1 on “Radiation Protection Culture”. Professor Michel Giot is presenting the TRASNUSA FE project at the Congress. The Congress will provide a timely opportunity to engage with other groups in the work of TRASNUSA FE.

Workshop Outcome

The workshop was a success in that it achieved its objectives that were set in the Madrid workshop and these are detailed in the preceding paragraphs and in the view of the author of this report has advanced thinking in relation to the development of safety culture training programmes. However a fundamental point to come out that really reflects the UK approach is that whatever approach is taken must be employer led and not delivery body led. The engagement of users and professional bodies that can act as surrogates for employers at an early stage is crucial to success where success is measured both by the uptake of safety culture courses developed by the project and improvement in nuclear safety that is evidenced in the future across the nuclear sector of the EU.

The work of the UK Human Performance Forum in attempting to codify human performance including safety culture in order to achieve a cross industry code of good practice with possible endorsement by INPO would be an important platform to build training programmes on that were specific to the licensed nuclear industry. The fundamentals of this codification would have applicability across other parts of the sector including nuclear. Once codified the use of both national and international professional bodies in the nuclear and medical sectors would be key in directing the development and implementation of the training and could assist with validation and possible approval or accreditation.

The following topics are suggested for consideration at the Llubljana workshop that takes place in early February 2012;

• Should training need be employer led or delivery organisation led?
• How does the project deal with the significant difference in cultures across the EU in its development of training approaches so that it can be flexible to needs?
• How does the project deal with the large number of specific training topics if it is restricted to four only?

• With a view to delivery across all 27 countries of the EU and the difficulty in achieving this, why should training material not be freely available or freely available under a licence to a competent training body any one of the countries?

Good luck in Ljubljana.

Peter Storey
Dalton Nuclear Institute
19 January 2012