UK skills transfer: supporting the Fukushima clean-up operation

Jennifer Richards, Peter Sibley and Howard Robinson explain why the culture of ‘challenge’ is vital when dealing with nuclear safety issues

In the wake of the disaster at the Fukushima Daiichi nuclear site in March 2011, the Japanese nuclear industry has reached out to the international community to provide assistance with the complex process of site clean-up and restoration. Recognising the credibility and track record of the UK’s nuclear industry, particularly in terms of the implementation of stringent safety and security arrangements, a number of UK-based organisations are now providing direct support and skills training to Japanese inspectors and site operators within the Tokyo Electric Power Company (TEPCO). Of particular importance has been the need to develop a culture of ‘challenge’ in the consideration of matters of nuclear safety significance.

Context
The UK nuclear industry has developed, over many years, both the processes and behaviours that encourage challenge at various levels and at certain points within projects. This is seen as a core skill in most organisations, where a barrier to failure is having independent challenge of all safety significant activities. Most nuclear operators have an ‘internal challenge’ organisation of some shape or form. In some cases this is called ‘internal regulation’, aiming to assist the organisation to improve ahead of regulatory inspection. This helps to ensure that the safety of workers, the public and the environment is central to all work undertaken on nuclear licensed sites. Such an approach possibly comes more easily to us in the UK, as it is inherent to our nuclear sector culture.

Cultures in other countries, including Japan, may be very different to those in the UK; however, the concept of challenge, which is so inherent to the UK-enabling license, is now starting to be adopted. Indeed, since the accident at Fukushima Daiichi, TEPCO has formed the Nuclear Safety Oversight Office (NSOO) in order to introduce a more rigorous and structured process of challenge, helping to address an issue which may have been a contributing factor in the unfortunate turn of events at the site in 2011.

Approach
There is a particular skill involved in being a good ‘inspector’ of plant on nuclear sites, whether this is as part of a regulatory body,
Following signing of a cooperation statement in May 2014, exchanges of information and visits took place between the two sites. A formal agreement to enable the transfer of knowledge and experience between TEPCO and Sellafield Ltd was then signed in September 2014.

Conclusion
The skill transfer and knowledge-sharing activities described above have resulted in a number of tangible benefits:

- a more structured approach to challenge within TEPCO;
- implementation of practices based on a set of principles well established here in the UK;
- the provision of an additional protection barrier against future disasters; and
- development of a strong bond between the UK and TEPCO on sharing of skills and ideas.

Support will continue throughout 2015 and beyond, ensuring that TEPCO benefits from the experience the UK has to offer in the key areas of safety management and regulations.

References

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Jennifer Richards has been part of the nuclear industry for over 30 years and has held a number of senior positions within both operating organisations and more recently in consultancy. She started NMCL in 2005 to provide specialist consultancy services to the nuclear industry. She is a senior member of several nuclear safety committees.

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Peter Sibley has worked within the nuclear sector for ten years, during which time he has gained a broad range of technical, project management and commercial experience. He is a technical specialist in radioactive waste management, nuclear decommissioning strategy development, environmental assessment and nuclear liabilities management.

Howard Robinson
Howard Robinson has worked as both an operator and a regulator. In his role as inspector for the Health and Safety Executive (HSE), the Nuclear Installations Inspectorate (NII) and UKAEA he gained detailed knowledge of all aspects of the relevant safety, environmental and technical issues. He is now an independent safety consultant.
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