



Nuclear Human Factors

Thursday 16 September 2010, Energy Institute, 61 New Cavendish Street, London W1G 7AR by the Energy Institute and the Nuclear Institute

There is an increasing emphasis on the importance of managing human factors in the workplace to achieve improved safety and business performance in all high hazard industries. Human factors is concerned with **what** people are being asked to do, **who** is doing it, and **where** they are working, all of which are influenced by the wider organisational culture and external influences.

The Nuclear Industry has had a long history of employing various Human factors knowledge and tools ranging from the engineering specific such as ergonomics in the design of equipment and workplace, through to more recent methods that help the worker and manager to achieve their best reliability and efficiency when completing their tasks. Safety has been the main focus of attention through the years as a clear understanding of the vulnerability of nuclear facilities to human error was required so it could be designed out or acceptable solutions found to prevent or recover such errors that may lead to nuclear accidents. However all Human Factor methods can also be applied to benefit the business in terms of reliability of actions and systems, potentially improving company image, marketability and cost savings important in the promotion and justification of nuclear power.

The industry has gone through major changes in the last 10 years leading to other Human Factor approaches to be adopted where more traditional barriers to error and harm eg shielding, interlocks, cannot be employed. This is particularly true for legacy nuclear facilities requiring decommissioning/demolition where more 'hands on' approaches are required. The proposed 'new build' Nuclear Power stations will also use Human factors to ensure safety and reliability.

This conference aims to look at the current Human Factor practices employed in the industry and discusses the benefits of an intelligent application of Human Factor methods and knowledge.

The conference

Rear Admiral (retd) Paul Thomas CB FREng HFNucl, President, Nuclear Institute and Professor Sue Cox, Dean, Business School, Lancaster University have both had long careers in the Nuclear Industry and have encouraged and developed Human factors within the businesses they have been associated with.

Human Factors in Decommissioning - This session will explore the Human factor tools that can be applied during each phase of decommissioning.

Fitting the New with the old (hybrid system)- Exploring the Human Factors around refurbishment of old equipment or systems or adding new equipment or systems.

Soft Skills - Human performance tools for people working in the Nuclear Industry. The conference will discuss experiences of using and establishing them in the workplace.

Human Factors of Organisational Learning - Learning from our experience, and taking action based on that learning. The conference will explore the successful ways of learning inside organisations and discuss the Human Factors that create barriers to learning or taking action.