

# International Conference on Human and Organizational Aspects of Assuring Nuclear Safety –Exploring 30 Years of Safety Culture



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## **Perspective on Human and Organisational Factors (HOF) - Attempt of a Systemic Approach**

*Wednesday, 24 February 2016 14:00 (30 minutes)*

### **Synopsis**

The presentation will raise questions concerning current conceptions and practices related to human and organisational factors and will focus on the need of a more systemic view and approaches in the nuclear industry.

In practice, attention is often focused unilaterally on technical aspects, neglecting the interactions and interfaces between the organisation, the people and the technology. The work in the different areas takes place with different approaches, based on different technical backgrounds but also on different cultures of the country, the company, the plant, etc. Also within the concept of defence-in-depth the attention normally lies on the technical safety levels, although similar provisions exist in the organisational field.

While the technical systems are always evolving and their reliability increases, the question of their implications for the organisations and the people who work with these systems is not always analysed in depth. Also, it should not be focused only on the staff in the control room. Attention must be directed also to the support organisations (maintenance, analysis, monitoring, etc.) and to the manufacturer, which play a significant and sometimes underestimated role in the overall system as well.

Further, there is a tendency to reduce the complexity by looking at individual aspects such as “safety culture”, “resilience”, “management systems”, “training”, “organisational structure”, etc., often without going beyond into a systemic approach. This requires the involvement of all different disciplines. Hence, dealing with the issue of HOF also means to create a basis to understand the complexity of the interactions between human, organisational and technical aspects. For this a very good knowledge and solid experience in these different fields are required.

The presentation will give some examples from other industries and the three major nuclear accidents of Three Mile Island, Chernobyl and Fukushima as an illustration with the focus being laid on the organisational causes.

### **Country or International Agency**

Switzerland

### **Type "YES" to confirm submission of required Forms A and B via the official channels**

YES

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**Session Classification:** SA2: Systemic Approach to Safety