



Wietske Postma

PSAM12 Speaker Bio

The contribution to safety of a diverse back-up system for digital safety I&C systems in Nuclear Power Plants, a probabilistic approach

Short Statement: First author

BIOGRAPHY

Mrs. Postma studied physics at the Technical University of Twente (the Netherlands). Her specialization was in the field nano-optics. She obtained her Master's degree (Msc) in 2011 on the subject of "Surface-plasmon assisted FRET (Förster Resonance Energy Transfer)".

After graduation Mrs. Postma joined the Nuclear Research and Consultancy Group (NRG) as consultant risk management. Mrs. Postma quickly gained experience in the field of digital I&C during her employment at NRG.

She has carried out research projects for the Dutch regulator, considering the subjects classification of I&C equipment, quantitative risk assessment of digital I&C, (non-digital) backup provisions and priority logic.

Mrs. Postma has participated in the OECD/NEA working group to establish a failure mode taxonomy for digital I&C system, DIGREL. Additionally, she participated in several end-user work groups on software reliability, sharing the practices in the Netherlands.

In 2014 she will participate in the EUR (European Utility Requirements) task group on I&C. The I&C Task Force group will address key topics as classification, defense in depth, diversity, maintenance, etc. taking into account previous licensing processes in such a way to be compliant with IEC standards.

Besides her work in digital I&C she also gained experience in the field of probabilistic safety assessment (PSA) in general and in ageing management review. Mrs. Postma participated in the major update of the PSA of the Nuclear Power Plant in Borssele, the Netherlands and she is currently working on the PSA for the high flux reactor (HFR) in Petten, for which she is focusing on success criteria, human reliability and the system analysis of I&C.

For the ageing management review for the HFR she developed a clear methodology to screen SSCs, categorize SSCs and gather relevant information on ageing mechanisms, and prevention, detection and mitigation of ageing.

