Pamela F. Nelson

PSAM12 Speaker Bio

Use of Corrective Action Programs at Nuclear Plants for Knowledge Management

Short Statement: First author and presenter

BIOGRAPHY

Education: BS in Engineering, UCLA, 1982
MS in Nuclear Engineering, UCLA, 1985
PhD in Energy Engineering, UNAM, in process

Work Experience:

Pamela Nelson in presently a full time professor at the National University of Mexico where she teaches Probabilistic Risk Analysis in the Engineering Graduate Program and participates in research projects related to PRA and Risk Management. She is responsible for the risk analysis research area in the Department of Energy Systems at the National University. She has led projects that include maintenance optimization, wind farms, industrial irradiators, hydrogen production, nuclear regulator training program development, among others.

She is the principal investigator for research and analysis in the area of Human Reliability Analysis (HRA) and performed and recently updated the Laguna Verde Nuclear Power Plant (LVNPP) HRA in order to comply with the Capability Category II of the ASME PSA Standard (RA-Sa-2009). She participated in the development and validation of the Emergency Operating Procedures and the Emergency Action Leveles for LVNPP. She has worked on severe accident analysis with RELAP/SCDAP and MELCOR codes. She was in charge of implementing the Levels 1 and 2 PSA for LVNPP in Saphire as well as a project involving the development of a Low Power/Shutdown PSA for the Laguna Verde Unit 1 (Plant Operational State 5, POS 5) for the Mexican Nuclear Regulatory Agency (CNSNS). She also developed a data base system to aid in programming training for CNSNS in order to implement the Reactor Oversight Program into Mexico's nuclear power plant regulations.