

## Announcement

Written by Administrator

Saturday, 16 January 2010 20:49 - Last Updated Sunday, 17 January 2010 16:48

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Dear Colleagues,

Over the last 5 years, new calculation techniques, such as BDD, have been extensively studied in nuclear PSA. The concern of these studies has been to end the use of approximations: numerical approximations for which we do not know the error factors, and modeling approximations which leave out perhaps critical elements of the actual plant.

The research efforts in this area have been conducted by several groups: Relcon, KAERI, EPRI, ABS, ARBoost Technologies, the PhD thesis of Dr. Olivier Nusbaumer ... to mention just a few. Now, these works are close to fruition.

At the same time, efforts are being made in the direction of “next generation” PSA software and “declarative modeling”, which try to present a more informative view of the actual systems, components, and interactions which the model represents.

From all these investigations, some alarming issues related to large nuclear PSA models have been raised, which we feel need to be addressed as we put new calculation engines or next generation user interfaces into place:

- Quality assurance of calculations;
- Un-founded reliance on numerical approximations and truncation;
- Portability of the models between different software;
- Clarity of the models;
- Completeness of the models;
- Difficulty of different software working with the same PSA model;
- Lack of data and software backward and forward compatibility;
- No universal format for industry data.

We believe that new calculation engines and user interfaces will address some of these issues. We also believe that for the engines and interfaces to be successful, a standard computer representation for PSA models, a representation which is independent of all PSA software, must be in place. Each software would retain its own internal representation for a model; but each software would also be able to share the model in a standard, independent format.

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We have approached many organizations, regulators and members of the international PSA community with the idea of discussing these issues in a workshop forum. We have received tremendous interest and support.

Therefore, we wish to hold the first, we hope, of several workshops to discuss the notions of Next Generation PSA Software, Declarative Modeling, and Model Representation Standards. Dr. Jens-Uwe Klugel, of Kernkraftwerk Gösgen-Daeniken has kindly offered to host a one-day workshop at the Gösgen Information Pavilion in Switzerland. A similar meeting will be hosted in the USA by Ken Canavan of EPRI in late summer or early autumn, in Washington, DC. We propose two introductory workshops to facilitate organizational travel requirements.

Please look at the enclosed announcement. We propose that we meet on Tuesday, June, 12th from 0900 until 1600; lunch and coffee would be provided, and we are looking to arrange a dinner on June, 11th, the evening before the workshop.

Please respond as soon as is possible, as space is limited.

We know your time is very important. If there are more convenient dates for you during the time period of May 30 to June 14, please indicate so on the Workshop Registration Form, also attached. We will do our best to accommodate you.

Looking forward to seeing you at Gösgen,

Steve Epstein & Antoine Rauzy