

MARACOR Update

Issue No. 17

September 2011

Seismic Issues

Welcome to the latest issue of Maracor Update. Events of the last six months have pushed seismic issues to the forefront. From the tsunami at Fukushima to the earthquake near North Anna and NRC's recent draft report on updated eastern and central US seismic intensities, increased focus on seismic risk is likely in the coming months.

MARACOR Software & Engineering, Inc. provides analytical consulting services and technical software development, primarily for the electric utility industry. For almost nine years, we have provided high-quality products and services to over one-half of the nuclear power stations in the US, and various foreign companies.

Our experienced staff has a proven track record of technical capability, customer service, and on-time product delivery. We provide Probabilistic Safety Assessment (PSA), Configuration Risk Management (CRM), PSA applications, reliability analysis, maintenance optimization, software applications, and cost-benefit analysis services.

Recent Activities

For more information about any of these projects, please see the contact information provided at the end of this newsletter

PSA Enhancement and Applications

Maracor is continuing its support of the fire PSAs for Southern's Hatch plant and Progress Energy's Brunswick plant.

For Xcel Energy, work continues on the update of the Monticello internal events PSA and on flooding PSA updates for Prairie Island and Monticello.

Maracor is performing an update to the Other External Events PSA for Southern's Vogtle plant. We are also continuing to assist Vogtle's implementation of Risk-Informed Tech Specs Initiative 4B. Current tasks include procedure development,

evaluation of sources of uncertainty and PSA technical adequacy, and updates to PSA models.

Maracor performed a Level 2 PSA update for First Energy's Davis-Besse plant and is supporting a peer review of a recent update to the Perry Level 2 PSA.

New Plant PSA

Work continues on the design certification PSA for the B&W *mPower*TM small modular reactor. In addition to Level 1, 2, and 3 PSA development for internal and external events, Maracor has performed reliability evaluations to optimize plant availability.

Maracor was awarded a major contract to prepare

the design certification PSA for the APR-1400 reactor being built by Korea's KEPCO Engineering & Construction Company.

Other Projects

A new survey of industry CRM practices has been completed for EPRI's Configuration Risk Management Forum, which will be published by EPRI later this year.

Maracor is providing PSA training to new members of Southern's PSA staff, including the fundamentals of Level 1 & Level 2 PSA as well as external events.

Maracor has led several visits this year to US plants for Japanese engineers to discuss safety culture practices

and post-Fukushima modifications being considered in the US and Japan.

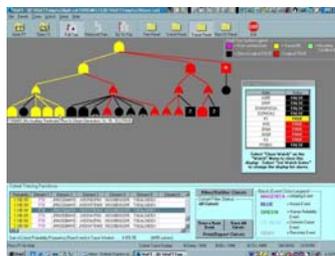
Software Tools

Our VisFT™ fault tree diagnostic tool was used by our staff to analyze cutsets in support of an independent review of the San Onofre Fire PSA. It was also recently used to prioritize plant components for the Hatch Fire PSA component selection task. This prioritization focused on component failure modes with relatively low internal events risk significance.

VisFT analysis of these low-significance failure modes revealed failure mode groups with potential fire risk significance if failed in combination. These

failure modes were assigned higher priorities for circuit selection.

The remaining failure modes received the lowest priority for circuit selection, allowing resources to be focused on those most likely to be fire risk-significant.



VisFT™ Fault Tree Diagnostics

VisFT interfaces with several of the industry's PSA software suites.

Maracor also continues to enhance the "Living Database" system that has been developed for SCE's Power Delivery group. Recent activities have focused on modifying the software to address a change of SCE's inventory and historical databases to SAP®.

Please contact us for more information about any of these products, or any plant-specific software development needs you may have.

Please visit our Web Site, www.maracor.com, to obtain additional information about our products and services. On our Web Site, you can also review our most recent news releases and product announcements. Additional copies of **MARACOR Update** (including previous issues) are also available there for downloading.

New Addition to Our Staff...

We are pleased to announce the recent addition of Mr. **Joseph Lavelline** to our staff. Joe has twenty years of nuclear plant experience, most recently serving as a senior member of a utility's PSA staff, providing day-to-day plant support. He also served as supervisor of the PSA group at the plant. His experience includes internal events PSA, risk-informed applications, and support of various regulatory-driven activities such as Mitigating Systems Performance Indices and the Significance Determination Process. Prior to his involvement with PSA, Joe worked for eight years as a simulation engineer in support of the plant's simulator upgrade projects.

How to Contact Us

MARACOR operates from three primary office locations, with additional personnel located in Delaware, Michigan, Pennsylvania, Tennessee, Washington, and Wisconsin. Please contact the office nearest to you for information about our capabilities and services:

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