

# MARACOR Update

Issue No. 18

March 2012

## New Year...New Name

Welcome to the latest issue of Maracor Update. As we began our tenth year of operation, we've updated our corporate name to **MARACOR** Technical Services, Inc. to better reflect the wide range of services that we provide for the electric utility industry. We remain focused on providing on-time, quality services with the same team of professionals.

**MARACOR** Technical Services, Inc. provides analytical consulting services and technical software development, primarily for the electric utility industry. For nearly ten years, we have provided high-quality products and services to over one-half of the nuclear power stations in the US, as well as 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

We continue to develop the fire PSA for Southern Nuclear's Hatch plant. An internal flooding PRA update was also completed for Hatch. This update ensured that dual-unit effects of flooding initiating events on accident progression and operator actions were addressed.

Maracor is assisting in support of the seismic PRA for Vogtle. As part of this effort, our staff is providing training and guidance to Southern staff on how to perform specific seismic PSA tasks. Maracor staff is also assisting Southern personnel in performing selected seismic PSA activities.

For DTE's Fermi plant, Maracor is assisting in the review of an ongoing RG 1.200 update to the internal events PSA.

For Progress Energy, Maracor completed the quantification of the Brunswick fire PSA in late 2011 and is now assisting in the response to peer review comments and revising the quantification to incorporate updated inputs. An independent review of the Brunswick High Winds PRA against ASME/ANS Standard requirements was also conducted by Maracor.

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

Monticello to meet RG 1.200 requirements.

Support continues for Vogtle's implementation of Risk-Informed Tech Specs Initiative 4B. On-going tasks include procedure development, evaluation of sources of uncertainty, and development of License Amendment Request sections. Maracor will also assist Hatch in developing the studies needed to support a similar 4B licensing submittal in 2013.

### New Plant PSA

Work continues on the development of Design Certification PSAs for two advanced reactor designs: the B&W *mPower*<sup>TM</sup> small modular reactor and the APR-1400 reactor being developed by Korea's

KEPCO Engineering & Construction Company. Current tasks include Level 1 and 2 model development for both reactor designs, fire and flooding evaluations for the APR-1400, and design optimization studies for the B&W *mPower* plant.

## Other Projects

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Maracor prepared two new EPRI reports for the Configuration Risk Management Forum. Report 1022998 provides guidance for consideration of fire risk in Maintenance Rule a(4) evaluations. Report 1022999 presents the results of the third triennial survey of US industry CRM practices.

Maracor is providing project management support for the

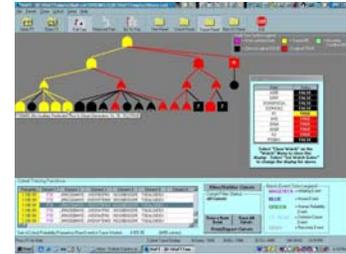
BWROG Containment Integrity Committee that is tasked with developing post-Fukushima enhancements for BWRs.

We also continue to support technical exchange visits to US plants by Japanese utility staff to discuss post-Fukushima enhancements for US and Japanese plants.

## Software Tools

Maracor develops and enhances software tools for PC Windows® desktop & Web-enabled uses. We can also develop custom tools to meet specific needs. Maracor-

developed software tools include our **VisFT™** fault tree diagnostic and **SM-UNCERT™** Uncertainty Analysis programs.



VisFT™ Fault Tree Diagnostics

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](http://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.

## Post-Fukushima Requirements and PSA Impacts...

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Response to the NRC's post-Fukushima requirements will impact plant risk assessment. In addition to the requirement to perform a seismic margin analysis (SMA) or seismic PSA, evaluation of the potential effects of external flooding will be required. The results of these evaluations may identify issues that impact plant risk or accident response. Any plant changes identified as a result of these assessments must be selected using a risk-informed, probability-based process. Plant improvements may also impact internal events risk (e.g., more mitigation options available). It is not too soon for PSA staff to become involved in the overall process and to begin evaluating PSA impacts.

## How to Contact Us

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**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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