

# MARACOR Update

Issue No. 13

September 2009

## PSA Updated? Now What?...

Welcome to the current issue of Maracor Update. Plant PSAs are being updated to comply with the internal events Standard. Proving the value of this investment to management should be a key goal, while addressing the next challenge: Fire and other External Events. Maracor can assist in PSA application & enhancement to provide maximum benefit.

**MARACOR** Software & Engineering, Inc. provides engineering consulting services and technical software development, primarily for the electric utility industry.

Our staff consists of experienced engineers with proven track records of technical capability, customer service, and on-time product delivery. Our service areas include Probabilistic Safety Assessment (PSA), Configuration Risk Management/Maintenance Rule support, PSA applications, reliability analysis, maintenance optimization, software applications, and cost-benefit analysis. We hope you consider **MARACOR** to support your technical consulting needs.

## 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 to assist in the update of the Hatch PSA to meet the requirements of the PSA Standard. Current activities include a Data Analysis update, Accident Sequence, Initiating Events and Success Criteria documentation development, and assistance in Quantification. Previously, all of the System notebooks were updated.

Our staff continues to assist in preparing the risk evaluations for the Extended Power Uprate licensing submittals for the Point Beach and Crystal River plants.

Maracor is also currently assisting a Japanese utility organization as they prepare a peer review process for internal events PSAs.

We are supporting Duke Energy in updating the McGuire and Catawba Initiating Events analysis.

We are also completing an update to the North Anna PSA that included major upgrades to all the PSA technical elements. Current activities include Accident Sequence and LERF updates, and Quantification.

Fire PSA activities include the following:

- Continuing support for the NFPA-805 programs for Xcel Energy's Prairie

Island and Monticello plants, and FPL's Point Beach plant

- Support for PWR Owners Group fire PSA peer reviews.

### Configuration Risk Management (CRM)

For the Southern Company's Farley plant, Maracor is developing a shutdown modes Defense-in-Depth EOOS™ model based on the most current industry guidance, including SOER 09-1.

For EPRI's Configuration Risk Management Forum, Maracor is studying the practicality of simplified methods for including fire and other external events risks in Maintenance Rule (a)(4) evaluations.

## Training

This fall, Maracor is conducting training sessions in Japan for operations management personnel concerning US best practices, as well as the next in a series of annual maintenance practices seminars, focusing on on-line maintenance practices for safety systems.

## 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 is developing a living database system for SCE's power delivery organization that will

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.

## Five PSA Peer Review "Best Practices" Awarded...

Maracor staff supported a major PSA upgrade for Columbia Generating Station. During the recently-completed peer review, the PSA was awarded *five* "best practices" pertaining to the work that we supported. Three best practices were awarded for our Internal Flooding analysis, with additional best practices for Initiating Events and Accident Sequence Analysis. For Internal Flooding, Maracor has developed a proven documentation and analysis approach that meets PSA Standard requirements. Similar methods and documentation templates have been developed to meet Initiating Events, Accident Sequence, Quantification, and Sources of Modeling Uncertainty requirements.

## How to Contact Us

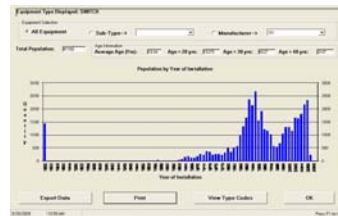
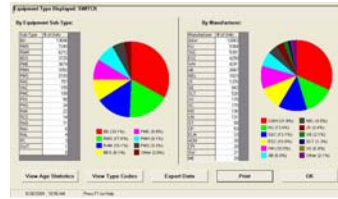
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allow personnel to rapidly analyze and trend equipment failure and aging statistics. This tool automates numerous manual analysis steps.



Other Maracor-developed software tools include:

- **VisFT™ (Advanced Fault Tree Diagnostics).**
- **SM-UNCERT™ (Enhanced Uncertainty Analysis)**

Our tools can interface with many of the industry's PSA software suites.

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