

# MARACOR Update

Issue No. 5

September 2005

## PSA '05 Issue

Welcome to the latest semi-annual issue of **MARACOR Update**. The release of this issue has been timed to coincide with the ANS PSA'05 Topical Meeting. If you were unable to attend this meeting and want to receive copies of the papers that Maracor staff members presented at this conference, just contact us!

**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 continue to 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

Maracor is assisting both Dominion and Energy Northwest in resolving open PSA update items in support of MSPI implementation. Technical support is being provided in the areas of initiating events and accident sequence development, systems analysis, and model quantification. Continuing support is also being provided to SCE in preparing the San Onofre PSA for certification to the ASME Standard next year.

For FPL, Maracor is also currently performing an independent review of the Turkey Point and St. Lucie PSAs for MSPI readiness and overall ASME Standard compliance.

### Configuration Risk Management (CRM)

As part of Maracor's ongoing support of the EPRI Configuration Risk Management Forum (CRMF), an ACRS presentation was prepared to explain how CRM models & software are prepared and tested to maintain fidelity with the baseline PSA. A series of plant visits are scheduled this fall to test the external events evaluation framework developed for the CRMF last year (TR-1009675).

### PSA Applications

Maracor is currently supporting the evaluation of internal flooding issues at Kewaunee following its recent sale to Dominion.

Maracor (working with Applied Research Associates, Inc.) also supported a TORMIS evaluation of various Kewaunee components for tornado-induced damage.

A tornado risk evaluation was recently performed for the Fort Calhoun plant in support of preparations for a steam generator replacement outage.

### Training Services

Maracor will conduct training in ASME PRA Standard compliance this fall for Entergy personnel. For an Asian client, we will be holding a two-day seminar on US on-line maintenance practices.

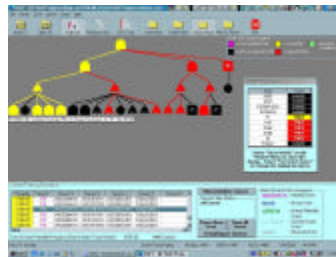
Shutdown Defense-in-Depth (DID) model training was also recently provided to the staff at DC Cook.

## Software Tools

Maracor develops and enhances software tools for PC Windows® desktop and Web-enabled applications. We provide several off-the-shelf products, and can develop custom tools to meet specific needs.

The newest version of **VisFT™**, our graphical fault tree diagnostic tool, is currently in beta testing and will be released to licensed users this fall. This new version includes support for most of the “special gate” types implemented in CAFTA for Windows (such as ‘A AND Not B’, NAND, XOR, ‘Not A OR B’, etc.). This upgrade now allows VisFT to support virtually all CAFTA and WinNUPRA fault tree models. A number of other enhancements have also been incorporated, including the display

of basic events in the model that do not appear in the cutset solution, and improvements to existing functions that allow the user to enter a “potential cutset” and trace its path through the fault tree logic. A demonstration version of the software is available. Please contact us if you would like to try VisFT with your PSA models.



*VisFT Cutset Trace Display*

As noted previously, our **SM-UNCERT™** uncertainty analysis software package now supports Bayesian-updated histograms from the R-DAT™ data analysis package and PRA model data from both the WinNUPRA™ and Safety Monitor™ software tools. SM-UNCERT uses the NRC-developed LHS and TEMAC codes to perform uncertainty analysis. SM-UNCERT can be modified to support other PSA software tools to support your unique uncertainty analysis needs.

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** are also available there for downloading.

### New Additions to our Staff...

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**Charlene Greene** is joining the Maracor staff at the end of September to help us continue to meet the needs of our clients. Ms. Greene is an experienced Level 1 PRA consulting engineer and has supported a number of PRA enhancement projects. Her experience includes flooding PRA, human reliability analysis, and system analysis. She also has considerable experience in the area of industrial risk management, including hazards and vulnerability assessments.

### How to Contact Us

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**MARACOR** operates from three primary office locations, with additional personnel located in Delaware, Pennsylvania, Tennessee, and Washington. On-site support can also be provided. Please contact the office nearest to you for information about our capabilities and services:

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