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# URA Update...

Utility Resource Associates Corporation, 1901 Research Boulevard, Suite 405, Rockville, Maryland 20850-3164
Telephone: 301-294-1940 Fax: 301-294-7879 web: www.urac.com

## News in Brief:

- Coming Up ... A NUPIC Performance Based Supplier Audit is being conducted at URA in early May 2004 by a two utility team that will focus on recently completed safety related projects. These projects include engineering analysis and software development.
- In-Progress ... URA's BWR Core Physics Workstation (CPW) is ready for installation at another site in the US. The CPW will be used as a graphical user interface to the SIMULATE-3 core model, for reload design and operations support. This CPW release will be installed on a WINDOWS 2003 server.
- Spring 2004 ... Over the past two years, URA has
  provided engineering support to a large operating
  company for input deck preparation and reviews of
  their new Framatome ANP on-line monitoring system.
  This spring the plants have transitioned successfully
  from the old system to the new. URA also provided
  MICROBURN-B2 model building and benchmarking
  analysis as part of our activities.
- April 2004 ... Expanded support to the Cooper Nuclear Station (CNS) includes providing reload specific cross section data to the SIMULATE-3R based core model used by the new training simulator. The same cross section data will be used by the GARDEL core monitoring application being installed this summer at CNS.
- March 2004 ... Completion of a series of tasks for a PWR dealing with as-manufactured fuel in the new reload core. The prior as-built core loading was modified under this project to account for statistical uncertainties applicable to assembly reactivity and core power distributions results from the manner in which the fuel was loaded. This project involved both CASMO-3/SIMULATE-3 analysis and the delivery of safety grade software.
- December 2003 ... Nebraska Public Power District awarded URA a multi-year contract to provide fuel management services to the Cooper Nuclear Station. The scope of work includes core physics, fuel management, vendor oversight, fuel economics activities and computer code installation support. The support provided by URA entails engineering analysis and reviews of Cooper reload designs and operations utilizing NPPD's in-house version of the Studsvik SIMULATE-3 code.
- November 2003 ... URA led a team self-assessment effort for a combined PWR and BWR Nuclear Analysis and Design organization. The objective was to perform a self- assessment of the organization relative to the INPO SOER 90-2, 96-2 and 03-2 recommendations and the Company's Quality Assurance Program, with major focus on implementation of 03-2 recommendations.

## **Procedures Help Address Resource Limitations:**

When an organization is shorthanded, stretched too thin, or just swamped with work; technical and administrative procedures can help minimize the likelihood of errors or omissions, enable part time or contract workers to be more productive and provide process consistency. URA can prepare your custom procedures in either traditional paper format or in electronic browser format with hyperlinks and software links.

#### How we do it

Our process typically begins with a 1-2 day on-site assessment of existing organization procedures, discussions of roles and responsibilities then drafting a list of desired procedures. From this initial effort, procedure and process outlines are generated with client review and approval before procedure writing begins. The end result may be either detailed procedures or higher level guidelines. All draft documents are issued for the client review and comment. URA then addresses the comments and any final integration into previously existing procedures and QA plans.

#### Administrative Procedures

Procedures for process control, records management, computer application control, and assessments and corrective actions are examples of administrative procedures that URA can prepare for you.

## Technical Procedures

Technical procedures define and control the nuclear analysis activities within the organization. Examples include reload analysis interfaces and responsibilities, reload and fuel design technical reviews, lattice design,

multi-cycle scoping analysis, model development, simulator updates, monitoring deck preparation, startup calculations, core follow, post-trip ECP calculations, and various types of design or operational data reports.

## **Staff Augmentation**

In a pinch and need qualified manpower to get the project done? URA's Staff Augmentation Services can supply a variety of qualified personnel to meet you project needs for either short or long term assignments. We have engineers, training instructors, programmers and administrative assistants. Simply stated, if your organization has a manpower need we can fill it.

### **Our Services Include:**

#### **Management Support:**

Organizational Assessments
Technical Assessments
Vendor Oversight
Staff Augmentation
Engineering & Admin Procedures
Economic Evaluations

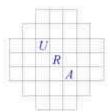
#### **Engineering Analysis:**

Fuel Management Reload Analysis Safety Analysis Core Monitoring Support Simulator Support

#### **Software Development:**

Code Development Code Enhancements GUI's Core Physics Workstations Custom Software Records Management

# **Utility Resource Associates Corporation**



1901 Research Boulevard, Suite 405 Rockville, Maryland 20850-3164

 Phone:
 301-294-1940

 Fax:
 301-294-7879

 E-mail:
 information@urac.com

VISIT US ON THE WEB TOO! WWW.URAC.COM

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## Using a Searchable Database to Manage Information

If this summer is when you have set aside time to organize and improve your administrative processes, then talk with us about using a trial version of a Microsoft Access searchable database. You probably already know the information intended for the database and the classification method for entry and retrieval. A searchable database implemented at the Department level in a Fuel Engineering function can provide immediate and long-term benefits. Start small, see how your organization responds to the database, and add other information and features later as appropriate. We see the two major challenges as the following:

- 1) Will the database immediately solve the basic problem of making information easier to find?
- 2) Will the database be able to withstand the test of time with new users adding and retrieving information, and with Microsoft releasing newer versions of Access?

URA meets these challenges by using validation rules in table parameters and in creating forms with parameter queries that make the forms self-evident for data entry and retrieval. The database contains read and write locking properties for simultaneous multiple user access, generally requires no training and is guaranteed to be upward compatible for the life of the application!

A searchable database for the following types of information may be of immediate value to your organization:

- Locate and display technical and administrative documents or procedures
- Track commitments and display a schedule of items requiring action
- Organize a historical trend of the reload design licensing parameters
- Confirm the correct steady state parameter values used for Chapter 15 analysis
- Store COLR data
- Track industry experience documents under select topics
- Manage discharged assembly and SNM Form-742 data

# Custom Software

Recently URA completed three custom software projects to enhance the reload design process at two separate utilities by linking to their nodal codes and automating parts of each utility's reload process. Both of these projects highlight URA's knowledge of reload design, industry analysis tools and code development. We've worked with legacy codes, state-of-theart core monitoring packages and modern graphical user interfaces. No custom application is too big or complicated for URA to tackle. If you need it, we can build it!