



NEW REACTOR DEVELOPMENT

NWI Supports Training and Development for a New Reactor

This February, NWI began a project supporting the development of Exelon's new reactor training programs for the Economically Simplified Boiling Water Reactor (ESBWR). NWI's Rob Brixey is heading up project management for developing training programs and the simulation required to support these new U.S. reactors. The project goal is to strategically blend the existing training programs and the 30+ years of operating experience with the new technological advances available for personnel training and qualification.

New Reactor Operator Qualifications. Operators of these new plants will require different skill sets than those of the past. The new operating personnel will need a familiarity with instrumentation and controls (I&C), basic programming and computer skills, Input/Output (I/O) operation know-how and an understanding of new design thermo-hydraulics applications. Training these next generation operators presents many new challenges. The blending of experienced workers from an older generation with this new target population containing different skill sets is anticipated to further complicate training program development. From a new application of the "cold license" process (i.e., which is still under development) to the hurdles of initial Accreditation, innovative ideas are required to address these dynamic requirements while constructing a solid training program. These unfamiliar challenges make NWI's approach to training a vital step in a previously unexplored training areas.

Teaming with EXITECH. NWI intends to team with EXITECH (Maryville, TN), a well established and highly skilled simulator vendor, to support the ESBWR project. EXITECH has been building and providing technical simulator support for over 25 years. Their recent efforts in developing part task simulators for the US Navy has resulted in a proven computer tech-

nology affording clients to remotely download selected training loads and administrative requirements. This has resulted in remote management of learning progress, exam analyses, and administrative requirements such as training records and remediation documentation.

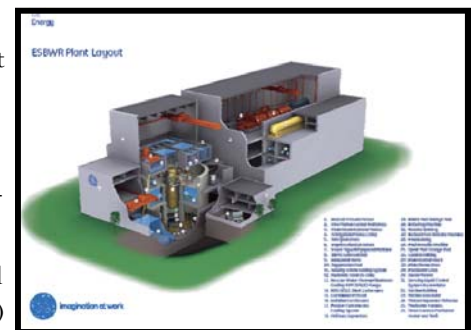
Moving Forward. At this stage of the Combined Operating License Application (COLA) process, project management is limited to the planning and development of tentative schedule layout. Impact analysis, anticipated barriers, new technological advancement applications and economies of scale evaluations are the current principal focus.

Project planning (e.g., level 1 and 2 project schedule development) is continuously being challenged and adjusted as the design certification process progresses. NWI stands ready to support as the new reactor development transitions from draft scheduling to tactical implementation.

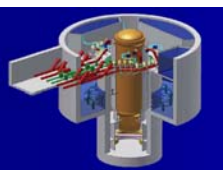
Currently, the General Electric-Hitachi (GEH) ESBWR design certifi-

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TEXAS: PRIME SOIL FOR PLANT BUILD



A nuclear renaissance has begun. In Texas alone, a projected 10 new reactors have been slated for construction. Schools such as Texas A&M are gearing up their nuclear technology and engineering programs to meet the expected new demand. The Look School of Engineering is planning to provide the "feeder stock" for over 2000 engineering/

technician jobs needed to support these new reactor sites. Exelon,

South Texas, Luminant Power and other stations have expressed their intent to build in Texas for a number of practical economic and demand-based reasons including government incentives involving electrical distribution support and high demand for power in the future.

Other Developments. In other areas of the country, significant progress in new reactor technology implementation has occurred including:



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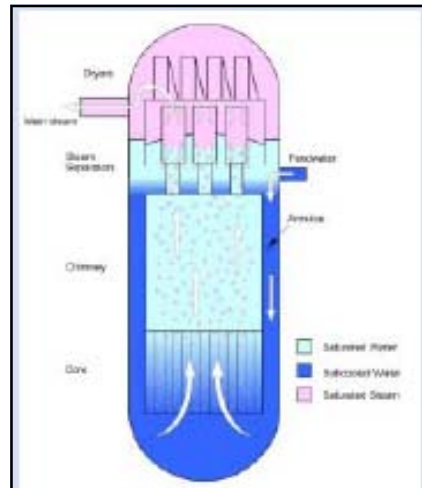
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ation is in NRC review while COLAs are being prepared and submitted. NWI's support is coming at a critical time in the overall development process since a number of utilities have been seriously evaluating new generation reactor construction.

Others factors pointing toward a change in plant technology:

- A \$917M 2008 budget has been appropriated to the NRC for support of new reactor design and project implementation.
- The Westinghouse AP1000 certification was completed with numerous utilities publicly stating an intent to purchase/build.
- The GEH ESBWR design certification that was submitted in 2005 is currently in review by the NRC staff .
- NSSS vendors, architect/engineers, forging vendors, concrete contractors and steel suppliers are being selected (e.g., Areva & Bechtel selected for U.S. EPR) to support new build projects.

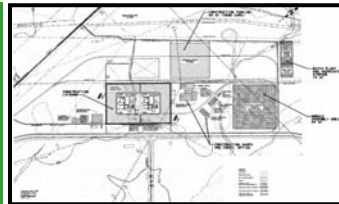
- State incentives are attracting numerous new build projects (e.g., Texas—see article page 1 of this newsletter).
- Environmentally friendly plant designs and “green” initiatives are being included in the development of Environmental Impact Statements (EIS).



Along with many other activities, these are seen as positive steps toward placing an order for the new reactor technology in future plants.

TEXAS: PRIME SOIL FOR PLANT BUILD

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- Reactor design certification and COLAs are in progress in UniStar Nuclear's U.S. EPR, MHI's U.S. APWR, GEH-Toshiba's ABWR, Westinghouse's AP-1000 and GEH's ESBWR.
- The NRC has scheduled the first public involvement in a COLA (South Texas project Environmental Impact Statement (EIS) scope). (see Nuclear News—March 2008)
- The NRC web site shows 5 COLA submittals with TVA's Bellefonte 1&2, Dominion's N. Anna 3, and Duke's Lee 1&2 expected in the near future.
- The Department of Energy (DOE) funding request was raised 37 percent and a 28 percent increase for high level waste research and continuation of the Yucca Mountain repository work.
- The COLA for Harris 2 & 3 was submitted in February 2008.
- COLA reviews for TVA's Bellefonte (AP-1000 reactors) are to be slated for completion by the NRC staff within the next three years with a final EIS scheduled for January 2010.

At this time, no U.S. company has announced that it will actually purchase and construct new reactors. Utility executives

have stated for years that by ordering a new reactor, the financial impact could be disastrous. However, for those utilities that have announced intentions (even technology and NSSS vendor selections), the impact on stock price trends for publicly traded entities have been just the opposite. A change of stock price comparison between the price before the intent to build announcement to the stock prices at the end of 2007 has a change range of between -6.94 to +51.12, with only 2 (DTE and NRG) out of the 16 companies with slightly negative stock changes reportedly from reasons different than announcing new reactor construction projects.



NWI Leadership Assessment Program (NWI LAP) Completes at SONGS

In January 2008, Roger Armitage and Dr. Frank Tsakeres completed the NWI Leadership Assessment Program (NWI LAP) for Southern California Edison's San Onofre Nuclear Generating Station (SONGS). An overall presentation with a detailed report was provided to site leadership which ultimately resulted in the incorporation of key strategic recommendations into the SONGS business plan. Several key divisional areas were reviewed including Operations, Maintenance, Training, Engineering and Key Executive Leadership (see Fall 2007 NWI Newsletter). Overall, the significant focal areas included organization alignment and structure, performance improvement areas and management behavioral models and fundamentals. Several strategies and techniques were provided to assist the station in an ongoing effort to achieve their goals and site initiatives. Key performance improvement recommendations were described in the report in order to achieve industry best performance and increase focus on becoming an aggressive learning organization.

One of the most significant contributions was to develop and implement a behavioral management model to position the organization for high velocity culture/behavior changes. The model focused on developing a consistent "picture" for all areas of human intervention with power plant equipment and critical person to person interface. By clearly establishing high standards of performance for specific areas (e.g., focus areas in the overall management model) this management model aims to equip personnel. The model included focal area descriptions that contained behavioral attributes describing a clear concise message of "what good looks like." All major programmatic areas were addressed including the Corrective Action Program, Design Control/Configuration Management, Emergency Preparedness, Engineering Programs, Engineering Technical Rigor, Equipment Reliability, Human Performance and Error Prevention, Industrial Safety, Operational Focus, Procedures and Work Instructions, Managing of Plant Workloads, Training and Qualification, Meeting Protocol and Asset Management. In addition, specific behavior-based "fundamentals" were recommended and developed for Nuclear Safety, Accountability, Change Management, Leadership and Performance Improvement (e.g., Operating Experience and Self Assessment/Benchmarking). Overall, NWI provided SONGS a description of the "price of admission" for each employee that should be integrated into the management structure.

From interviews and observations to final report preparation and issuance, the entire project took about 2 1/2 months to complete. NWI is pleased to have been a small part of this strategic initiative at SONGS. We hope that this product will assist in guiding the station to continued improvement in their ongoing effort in achieving excellent station performance.



NWI in Canada

This March, NWI began to provide consulting support to all Bruce Power Plants in Ontario, Canada. NWI consultants, Dr. Frank Tsakeres, Dr. Ray Waldo and Terry Johnson are offering their consulting expertise to improve efficiency in training, management and overall plant operations. Johnson is providing recommendations in the maintenance and operations training areas. Tsakeres and Waldo are supplying strategic oversight while making recommendations to the Executive Training Standards Advisory Committee. In addition, selected focused area self-assessment activities and targeted performance improvement initiatives (e.g., identification and implementation of solid program changes) are being conducted to assist the site.

We're on the Web! See us at www.nwi-llc.com

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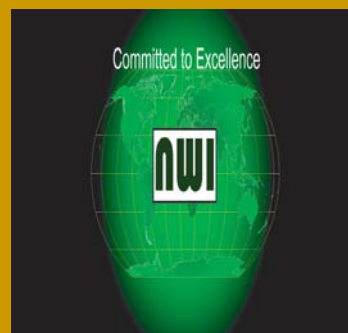


NWI News Update...

- Rob Brixey has been named NWI's project manager on the new ESBWR development project for Exelon.
- After a short support stint at LaSalle in late 2007, Bill Cheever is now full time at Hope Creek supporting their NLO, ILT and LORT programs.
- NWI acting Entergy QA Corp Manager, Ernie Harkness has joined Entergy's Nuclear Safety Review Board.
- After spending last year at LaSalle County Station for NWI, Terry Johnson is now supporting Bruce Power's Maintenance training improvement initiatives for 2008.
- Dr. Ray Waldo has teamed up with NWI to support Bruce Power by providing operations and training oversight.
- For the third year in a row and after excellent NRC Exam results, NWI has been asked to support DC Cook's NRC exam preparations in 2008. NWI's Steve Pettinger has returned to Cook to support exam development.
- Roger Armitage will support the upcoming SONGS Simulator Assessment scheduled for May 2008 following major modifications of the I/O and rewiring upgrade.
- Mark Carey, Ken Gerling, and Dan Slater continue to support Turkey Point's operations training recovery. Slater provides additional support in the Maintenance and Technical area of ASER preparations.

We wish to express special thanks to the following clients for making NWI a preferred consulting company.

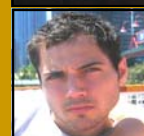
- AEP's D.C. Cook Nuclear Power Plant
- APS's Palo Verde Nuclear Station
- Bruce Power
- FPL's Turkey Point Plant
- SCE's San Onofre Nuclear Generating Station
- PSEG's Hope Creek Station
- Exelon's New Reactor Development Group



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Our program specialties include: Human Performance, Training and Accreditation, Simulator Instructor Training, Operations Training, Engineering Services, Corrective Actions Program Improvement, Root Cause Analysis and Self-Assessment, NRC Exam Writing, CBT for Dry Cask Storage/ RadWaste Training, and many Human Performance Trainers.