

2011 UTILITY WORKING CONFERENCE AND VENDOR TECHNOLOGY EXPO

August 14-17, 2011 Hollywood, Florida • The Westin Diplomat Resort and Spa



"It's Not Easy Being Green:

Innovations for Continued Safe, Secure, and Competitive Nuclear Operation"

Key Note Speakers:

John W. Rowe, Chairman and Chief Executive Officer, Exelon Corporation

James O. Ellis Jr., Chief Executive Officer and President, Institute of Nuclear Power Operations (INPO)

Two Special Plenary Sessions on Fukushima

Dr. Charles J. Camarda, Senior Advisor for Innovation to the Office of Chief Engineer, Johnson Space Center

CONFERENCE TRACKS:

Cyber Security/Digital I&C Engineering Executive Knowledge Management/Workforce Issues Long Term Operation Maintenance New Reactor Operations Performance Improvement Regulatory Relations/Oversight Risk Management Work/Project Management

CAN NUCCUE

CONTRIBUTING ORGANIZATIONS

The organizations listed below have made an outstanding contribution to the success of the 2011 UTILITY WORKING CONFERENCE and to the enjoyment of the attendees and their guests through their generous sponsorship.

Day & Zimmermann Sponsor of the Hotel Key Cards

Exelon Nuclear Partners Sponsor of the Badge Holders

SUNDAY, AUGUST 14, 2011 System One

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Sponsor of the 2011 Utility Working Conference Golf Tournament Awards Luncheon

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MONDAY, AUGUST 15, 2011 AREVA ENERCON

Co-Sponsors of the Opening Plenary Breakfast

Lockheed Martin Sponsor of the Mid-Morning Refreshment Break in the Vendor Technology Expo

Curtiss-Wright Nuclear Westinghouse Electric Company Co-Sponsors of the Luncheon in the Vendor Technology Expo

TUESDAY, AUGUST 16, 2011

Sargent & Lundy Sponsor of the Sunrise Breakfast

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Sponsor of the Mid-Morning Refreshment Break in the Vendor Technology Expo

GE Hitachi Nuclear Energy

Sponsor of the Luncheon in the Vendor Technology Expo

Northrop Grumman Power/Control Systems Nuclear News

Co-Sponsors of the Beer/Wine/Soft Drinks during the Vendor Technology Expo Reception

WEDNESDAY, AUGUST 17, 2011 Shaw Group Tennessee Valley Authority Co-Sponsors of the Mid-Morning Refreshment Break

TABLE OF CONTENTS

4	Special Fukushima Session
5	Key Note Speakers
6	Program Committee
7	Condensed Schedule
8	Conference Information
9-20	Technical Sessions by Day
21	Professional Development Worksh
22-36	Vendor Technology Exhibit
37	Golf Tournament Information
	the second se

2011 UTILITY WORKING CONFERENCE AND VENDOR TECHNOLOGY EXPO

"IT'S NOT EASY BEING GREEN: INNOVATIONS FOR CONTINUED SAFE, SECURE, AND COMPETITIVE NUCLEAR OPERATION"

> THE WESTIN DIPLOMAT RESORT AND SPA • HOLLYWOOD, FLORIDA AUGUST 14-17, 2011

UPDATED: AUGUST 10, 2011

2011 Utility Working Conference & Vendor Technology Expo

August 14-17, 2011 ■ Westin Diplomat ■ Hollywood, Florida



"It's Not Easy Being Green:

Innovations for Continued Safe, Secure, and Competitive Nuclear Operation"

Please join us at the 2011 American Nuclear Society's Utility Working Conference dedicated to identifying innovations in all areas of nuclear power plant operations. The functional area tracks/sessions bring together professionals with different perspectives focusing on current issues and innovations.

Special Fukushima Session Wednesday August 17th, 2011

At the time of this conference it will be approaching 6 months since the events at the Fukushima site; the UWC planning Committee has added a special
afternoon session consisting of presentations by the speakers below on the lessons learned and actions going forward from the event. The presentations will be followed by a panel question and answer period with the speakers as the
panel.

Speakers:

Martin Virgilio, Deputy Executive Director for Reactor and Preparedness Programs, US-NRC

Tony Pietrangelo, Chief Nuclear Officer and Senior Vice President, NEI

William Webster, Senior Vice President Industry Evaluations, INPO

Charles Pardee, Chief Operating Officer, Exelon Generation

<u>Additional Panel Member:</u> Jack Grobe, Deputy Director NRR, US-NRC

Facilitator: Amir Shahkarami, Chief Executive Officer, Exelon Nuclear Partners

Please register now as openings are filling quickly; go to www.ans.org and look for the Utility Working Conference and Vendor Technology Expo link under upcoming meetings.

Meeting Information www.ans.org For more information, contact David Slaninka, ANS Meetings 708/579-8255 or dslaninka@ans.org

Looking for a good place and time to schedule a meeting? Take advantage of meeting rooms available to industry and corporate working groups. Amir Shahkarami, General Chair, Exelon Corporation

Christopher Wiegand, Technical Program Chair, Invensys Phone: 630-659-8134 Christopher.wiegand@invensys.com

2011 UWC Tracks

Executive

Engineering

Knowledge Management and Workforce Issues

Operations

Regulatory Relations and Oversight

Performance Improvement

Risk Management

Work/Project Management

Long Term Operation

Maintenance

New Reactors

Cyber Security/Digital I&C



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Key Note Speakers

<u>John W. Rowe</u>, Chairman and Chief Executive Officer, Exelon Corporation

Mr. Rowe has led Exelon Corp. since its formation in 2000 through the merger of PECO Energy and the parent of Commonwealth Edison. His prior positions include CEO of New England Electric System and CEO of Central Maine Power Company. He is a past chairman of both the Nuclear Energy Institute and the Edison Electric Institute. Mr. Rower serves as a member of the Secretary of Energy's Blue Ribbon Commission on America's Nuclear Future and various boards of directors. In both 2008 and 2009, *Institutional Investor*, named Mr. Rowe the best electric utility CEO in America.

<u>James O. Ellis Jr.</u>, Chief Executive Officer and President, Institute of Nuclear power Operations (INPO)

Admiral Ellis, USN (Ret.) has served as CEO and President of INPO since 2005 following a distinguished naval career which put him on the forefront of innovation and technology implementation in a variety of roles. A Navy fighter pilot and graduate of the Naval Nuclear Power Training program, Ellis went on to fill command roles including space operations, DOD information operations and strategic warning among many others. Admiral Ellis is a Naval Academy graduate holding Master of Science degrees from Georgia Institute of Technology and University of West Florida.

<u>Charles J. Camarda</u>, Senior Advisor for Innovation to the Office of Chief Engineer, Johnson Space Center

Dr. Camarda (Ph.D.), an astronaut with over 333 hours logged in space, is one of NASA's distinguished leaders in innovation. As lead of the various research and development teams, Dr. Camarda has been responsible for maturing technologies to support the space program through materials and process developments such as leading edges for hypersonic vehicles and reusable cryogenic tank systems. Dr. Camarda has received over 21 NASA awards for technical innovations and accomplishments and received a Research and Development 100 award from Industrial Research magazine in 1983.

Meeting Information www.ans.org For more information, contact David Slaninka, ANS Meetings 708/579-8255 or dslaninka@ans.org

Looking for a good place and time to schedule a meeting? Take advantage of meeting rooms available to industry and corporate working groups. Amir Shahkarami, General Chair, Exelon Corporation

Christopher Wiegand, Technical Program Chair, Invensys Phone: 630-659-8134 Christopher.wiegand@invensys.com

2011 UWC Tracks

Executive

Engineering

Knowledge Management and Workforce Issues

Operations

Regulatory Relations and Oversight

Performance Improvement

Risk Management

Work/Project Management

Long Term Operation

Maintenance

New Reactors

Cyber Security/Digital I&C

Exelon

Program Committee

GENERAL CHAIR

Amir Shahkarami CEO, Exelon Nuclear Partners/ Senior VP, Exelon Generation

ASSISTANT TECHNICAL PROGRAM CHAIR

L.E. (T-Bow) Thibault GM, Nuclear Fleet Performance Tennessee Valley Authority

ASSISTANT GENERAL CHAIR

Michael Skaggs Sequoyah Site VP, Tennessee Valley Authority

ASSISTANT TECHNICAL PROGRAM CHAIR Michael Spellman Control Room Supervisor, Progress Energy

TECHNICAL PROGRAM CHAIR

Christopher M. Wiegand Nuclear Client Executive, Invensys

GOLF CHAIR

Thomas D. (Sid) Sarver Retired, Enercon Services, Inc.

TRACK	LEADER	ORGANIZER(S)
CYBER SECURITY/ DIGITAL I&C	Glen Kaegi, Exelon Nuclear Rob Austin, EPRI	Richard Wood, ORNL Ted Quinn, Technology Resources
ENGINEERING	George Attarian, Progress Energy	Vann Stephenson, Progress Energy
EXECUTIVE	Richard Cole, RC Consulting	Don Eggett, AES
KNOWLEDGE MANAGEMENT/ WORKFORCE ISSUES	Donald Hoffman, EXCEL Services Corporation	Vince Gilbert, EXCEL Services Corporation Ken Caraway, EPRI George Hutcherson, INPO
LONG TERM OPERATION	John Gaertner, EPRI	Don Williams, ORNL Bruce Hallbert, INL Tom McGuinness, Lockheed Martin Joe Naser, EPRI Ted Quinn
MAINTENANCE	Patrick Boyle, Exelon Nuclear	
NEW REACTOR	Mark McBurnett, STP Dave Matthews, US NRC	Charles Pierce, SNC Russ Bell, NEI Rod McCullum, NEI Jeannie Rinckel, FirstEnergy/NEI John Mahoney, Entergy
OPERATIONS	Cheryl Gayheart, Exelon Nuclear	Mike Spellman, Progress Energy
PERFORMANCE IMPROVEMENT	Dave Gudger, Exelon Nuclear George Hutcherson, INPO	Bill Corcoran, NSRC
REGULATORY RELATIONS/ OVERSIGHT	Gordon Arent, TVA Eric Leeds, US NRC	Pete Gaillard, TVA Trent Wertz, US NRC
RISK MANAGEMENT	Greg Krueger, Exelon Nuclear	Bob Rishell, Progress Energy Ken Canavan, EPRI
WORK/PROJECT MANAGEMENT	Jeannie Rinckel, FirstEnergy/NEI	Bill Flanagan, Black Diamond Services, Inc. Jon Anderson, Anderson, Chavet & Anderson Inc Chris Vlahoplus, ScottMadden, Inc.

Condensed Conference Schedule

SUNDAY, AUGUST 14, 2011

8:00 a.m.	Golf Tournament "Grab and Go Breakfast" – Sponsored by System One 2011 UWC Golf Tournament Awards Luncheon – Sponsored by Invensys Operations Management
3:00 p.m. – 7:00 p.m.	Meeting Registration
6:00 p.m. – 7:30 p.m.	Opening Reception in the Vendor Technology Expo Blended & Frozen Drinks – Sponsored by EXCEL Services Corporation
	Beer/Wine/Soft Drinks – Sponsored by EPM, Inc.
	Hot Appetizers – Sponsored by Rolls-Royce
7:30 p.m. – 9:00 p.m.	Dessert and Cordial Reception in the Vendor Technology Expo Sponsored by Mitsubishi Heavy Industries

MONDAY, AUGUST 15, 2011

7:00 a.m. – 4:30 p.m.	Meeting Registration
7:30 a.m. – 8:30 a.m.	Continental Breakfast in the Vendor Technology Expo <i>Co-Sponsored by AREVA and ENERCON</i>
8:30 a.m. – 10:00 a.m.	Opening Plenary: "It's Not Easy Being Green: Innovations for Continued Safe, Secure, and Competitive Nuclear Operation" KEYNOTE SPEAKER: John Rowe (Chairman and Chief Executive Officer, Exelon Corporation)
10:00 a.m. – 10:30 a.m.	Mid-Morning Refreshment Break in the Vendor Technology Expo Sponsored by Lockheed Martin
10:30 a.m. – 12:00 p.m.	Breakout Sessions
12:00 p.m. – 1:30 p.m.	Walk-Around Luncheon in the Vendor Technology Expo Co-Sponsored by Curtiss-Wright Nuclear and Westinghouse Electric Company
1:30 p.m. – 3:00 p.m.	Breakout Sessions
3:00 p.m. – 3:30 p.m.	Afternoon Refreshment Break in the Vendor Technology Expo
3:30 p.m. – 5:00 p.m.	Breakout Sessions

TUESDAY, AUGUST 16, 2011

7:00 a.m. – 8:30 a.m.	Sunrise Breakfast Sponsored by Sargent & Lundy
7:00 a.m. – 4:30 p.m.	Meeting Registration
8:30 a.m. – 10:00 a.m.	Plenary Session KEYNOTE SPEAKER: James Ellis, Jr. (CEO and President, INPO)
10:00 a.m. – 10:30 a.m.	Mid-Morning Refreshment Break in the Vendor Technology Expo Sponsored by AREVA DZ LLC
10:30 a.m. – 12:00 p.m.	Breakout Sessions

TUESDAY, AUGUST 16, 2011

TUESDAY, AUGUST 1	6, 2011
12:00 p.m. – 1:30 p.m.	Walk-Around Luncheon in the Vendor Technology Expo
	Sponsored by GE Hitachi Nuclear Energy
1:30 p.m. – 3:00 p.m.	Breakout Sessions
3:00 p.m. – 3:30 p.m.	Afternoon Refreshment Break in the Vendor Technology Expo
3:30 p.m. – 5:00 p.m.	Breakout Sessions
5:00 p.m. – 7:00 p.m.	Reception in the Vendor Technology Expo Appetizers – Sponsored by the Technology Expo Vendors Beer/Wine/Soft Drinks – Co-Sponsored by Northrop Grumman Power/Control Systems and Nuclear News
8:00 p.m. – 11:00 p.m.	EXCEL Services Corporation Evening Event: "Return of the Pirates!" (Location: Grand Ballroom)
WEDNESDAY, AUGUS	ST 17, 2011
7:00 a.m. – 4:30 p.m.	Meeting Registration
7:30 a.m. – 8:30 a.m.	Continental Breakfast in the Vendor Technology Expo
8:30 a.m. – 10:00 a.m.	Plenary Session KEYNOTE SPEAKER: Dr. Charles Camarda (Senior Advisor for Innovation to the Office of Chief Engineer, Johnson Space Center)
10:00 a.m. – 10:30 a.m.	Mid-Morning Refreshment Break Co-Sponsored by Shaw Group and Tennessee Valley Authority
10:30 a.m. – 12:00 p.m.	Breakout Sessions
12:00 p.m. – 1:30 p.m.	Closing Luncheon
1:30 p.m. – 3:00 p.m.	Special Plenary: Fukushima Lessons Learned and Future Actions
3:00 p.m. – 3:30 p.m.	Afternoon Refreshment Break
3:30 p.m. – 5:00 p.m.	Special Plenary: Fukushima Question and Answer Panel Session

THURSDAY, AUGUST 18, 2011

8:00 a.m. – 4:00 p.m.	Professional Development Workshop:
	"Root Cause Analysis for Safety Culture and
	Human Performance Improvement"

Conference Information



The Westin Diplomat Resort and Spa

Accommodations/Hotel Information

The Westin Diplomat Resort and Spa will be the location for the 2011 Utility Working Conference, where all meeting activities and technical sessions will take place. The hotel address is: 3555 S. Ocean Drive, Hollywood, FL 33019; Telephone: 954-602-6000.

Conference Registration

Registration is required for all attendees and presenters. **Badges and tickets are required for admission to all events.** The Conference Registration fee includes one ticket to each of the following events:

Sunday Welcome Reception; Monday, Tuesday and Wednesday Luncheons; and a copy of the available meeting materials on a CD-Rom.

NOTE: Additional tickets can be purchased in advance or on-site at the ANS Registration Desk for the Sunday Welcome Reception; Monday, Tuesday and the Wednesday Luncheons.

Registration Hours:

The Conference Registration Desk will be located in the Great Hall Foyer of the Westin Diplomat Resort and Spa. You may register, purchase tickets for events, or pick up your registration packet during the following hours:

SUNDAY, AUGUST 14, 2011

3:00 p.m. - 7:00 p.m.

MONDAY, AUGUST 15, 2011 7:00 a.m. - 4:30 p.m.

TUESDAY, AUGUST 16, 2011 7:00 a.m. - 4:30 p.m.

WEDNESDAY, AUGUST 17, 2011 7:00 a.m. - 4:30 p.m.

THURSDAY, AUGUST 18, 2011 7:00 a.m. - 10:00 a.m.

MARK YOUR CALENDARS — PLAN TO ATTEND!

2012 ANS ANNUAL MEETING



and EMBEDDED TOPICAL MEETINGS:

- DD&R 2012
- Nuclear Fuels and Structural Materials for the Next Generation Nuclear Reactors
- ICAPP 2012

June 24-28, 2012 · Chicago, IL Hyatt Regency Chicago

Call for Papers now online! www.ans.org

"It's Not Easy Being Green: Innovations for Continued Safe, Secure, and Competitive Nuclear Operation"

Although Nuclear is heralded as a "green" source of electricity, there are unique issues that come with it that mandate we continually improve and guarantee the safety and security of the plants as well as being an economically competitive option for the consumer. To do this we must identify innovations in all of the functional areas of our plants; the conference sessions will focus on the issues and possible innovations.

MONDAY, AUGUST 15, 2011 • 7:30 A.M. - 8:30 A.M.

Breakfast in the Vendor Technology Expo *Co-sponsored by AREVA and ENERCON Location: Great Hall 1, 2, 3*

MONDAY MORNING OPENING PLENARY MONDAY, AUGUST 15, 2011 • 8:30 A.M. –10:00 A.M.

Opening Plenary Session Location: Grand Ballroom

WELCOME/OPENING REMARKS:

• Amir Shahkarami (General Chair, 2011 UWC)

• Christopher M. Wiegand (Technical Program Chair, 2011 UWC)

KEYNOTE SPEAKER: John Rowe (Chairman and Chief Executive Officer, Exelon Corporation)

UWC Award Presentations: Amir Shahkarami (General Chair, 2011 UWC)

• 2011 Utility Leadership Award: John McGaha (*Retired, Entergy*) "In recognition of exemplary performance throughout his career in the nuclear industry through his tireless and endless efforts he continually demonstrates to those around him. Now a retired Executive of Entergy, he continues his involvement as a major stakeholder driving continuous

improvement, sustained performance, and excellence in the industry."

• 2011 Plant Achievement Awards for Best Performance: BEAVER VALLEY UNIT 1 *"For Best Performance in 2010; For the Top Performing Plant among all nuclear plants with an INPO Rating of 100.0 for the year 2010."*

MONDAY, AUGUST 15, 2011 • 10:00 A.M. -10:30 A.M.

Mid-Morning Refreshment Break in the Vendor Technology Expo Sponsored by Lockheed Martin Location: Great Hall 1, 2, 3

MONDAY MORNING TECHNICAL SESSIONS

MONDAY, AUGUST 15, 2011 • 10:30 A.M. –12:00 P.M. Executive Track

Recruiting and Training the Workforce to Support Long-term Industry Growth and Safe Operations Location: Diplomat Ballroom 1

Session Organizers: Don Eggett (AES) and Dick Cole (RC Consulting)

This session will focus on ensuring that we have the infrastructure and to attain a highly trained and motivated workforce to support branding nuclear as a 'green' source of electricity. The presentations will focus on efforts underway to support the new generation of plants being constructed, including lessons learned from workforce planning from an executive perspective.

SPEAKERS:

- Paul Rushton (Operational Readiness Director, SNC Vogtle units 3 and 4)
- Lisa Brattin (Director, Industry Learning & Development, INPO)

Engineering Track Ensuring Cable Equipment Reliability Location: Diplomat Ballroom 2 Session Organizer: George Attarian (Progress Energy)

Cable reliability has become a topic that sparks a lot of interest. Both regulator and utility have great interest on what needs to be done to manage the aging of cables. This session focuses on the technical aspects of medium voltage cable aging, how to detect degradation, and how to maintain desired reliability from aspects of technical consultant and utility.

Speakers:

- Cable Aging and Detection, Rick Easterling, *(Kinectrics)* and Mark Hypse *(Arizona Public Service)*
- Maintaining Cable Reliability, Kevin Riley (Progress Energy, Manager Nuclear Fleet Technical Programs)

Operations Track

Highlights from Pilot Plants for the New INPO Crew Performance Evaluations

Location: Diplomat Ballroom 3 Session Organizer: Cheryl Gayheart (Exelon Fleet Operations Director)

This session will explain the need for the more rigorous evaluation of operator fundamentals and the different methods that will be used.

Speakers:

- Mike McKenna (Operations Director, Exelon Oyster Creek)
- Cheryl Gayheart (Exelon Fleet Operations Director)

Maintenance Track

Putting RFID to Work in Nuclear Power Generation Location: Diplomat Ballroom 4

Session Organizer: Bart Hickman (Alphasource)

SPEAKERS:

- Bart Hickman (Alphasource, Inc.)
- Rick Raber (Chief Technology Officer, Northern Apex Corporation)
- Rich Carpenter (Site FME Coordinator, PPL Susquehanna)
- Charles Harris (Corporate Support Assessment Specialist, Exelon Nuclear)

Regulatory Relations & Oversight Issues Containment Accident Pressure Location: Regency Ballroom 2

Session Organizers: Eric Leeds (US NRC), Trent Wertz (US NRC), Pete Gaillard (TVA), and Gordon Arent (TVA)

Containment Accident Pressure (CAP) - address issues regarding the use of CAP in analyzing pump performance in Emergency Core Cooling Systems and containment heat removal systems during postulated accidents.

SPEAKERS:

- Bill Ruland (US NRC)
- Kevin Borton (Exelon)

Long Term Operation Technical Basis for Long Term Operations Location: Diplomat Ballroom 5 Session Lead: Don Williams (ORNL)

SPEAKERS:

- EPRI LTO Program, J. Gaertner (EPRI)
- DOE LWR Sustainability Program, D. Williams (ORNL)
- Ginna/NMP Demonstration Projects, P. Walsh (CENG)
- EPRI Life Limiting Study, T. Esselman (Lucius Pitkin)

Knowledge Management & Work Force Issues Track Overview and NKM Innovations Location: Regency Ballroom 1

Session Organizer: Vince Gilbert (EXCEL Services Corporation)

SPEAKERS:

- KM-WF Track Issues Introduction, Vince Gilbert (EXCEL Services Corporation)
- Managing for Innovation, Jim Hill (Xcel Energy)
- · Innovative Human Performance Approaches, Thomas Braudt and C.L. Turner (Professional Services)
- Work Management Business Modeling Process Improvement at Hanford, Donna Nichols (Business Genetics)

Performance Improvement Welcome to Performance Improvement (PI) 2011 Location: Room 212/213

This session sets the stage for the PI Track: What are the concerns and opportunities for PI now?

SPEAKERS:

- Dr. Bill Corcoran (NSRC)
- George Hutcherson (INPO)
- Dave Gudger (Exelon Nuclear)

Risk Management Implementation of Risk Informed Initiatives Location: Atlantic Ballroom 2 Session Organizer: Greg Krueger (Exelon Nuclear)

This session will cover the continued development of probabilistic risk Assessment (PRA) models used to support risk-informed applications. The use of the ASME PRA Standard in providing the criteria for PRA models and the benchmarking of those models using an industry peer review process will be discussed. The objective is to share insights from PRA model development and how the information or insights from those models can be used to support utility and regulator decision-making.

New Reactor

Plans, experience and challenges with NRC regional and headquarters inspection of new reactor construction Location: Regency Ballroom 3 Session Chair: Charles Pierce (AP1000 Licensing Manager)

This session will cover NRC ongoing oversight and inspection activities related to new plant development from both industry and NRC viewpoints. The objective is to share lessons learned, preparations necessary to support oversight and inspection, and current and future planned NRC inspection initiatives. The current status of the construction Reactor Oversight Process, the development and use of corrective action programs, and ITAAC will be discussed.

SPEAKERS:

- Plans and Experience for NRC-NRO Oversight of New Reactor Construction, Laura Dudes (US NRC NRO Division of Construction Inspection and Operational Programs)
- Vogtle Lessons Learned in Getting Ready for Construction, Charles Pierce (SNC AP1000 Licensing Manager)
- Construction Reactor Oversight Program, Tom Houghton (NEI)

Cyber Security/Digital I&C Issues

Lessons Learned from Oconee Digital Protection System Upgrade Location: Atlantic Ballroom 1

Session Organizer: Michael Bailey (Duke Energy)

SPEAKERS:

- Michael Bailey (Duke Energy)
- Ron Legrand (AREVA NP Inc.)
- Rich Stattel (US NRC)

Work/Project Management

Managing Recovery Projects – Warning Signs, Intervention and Recovery Location: Atlantic Ballroom 3

Session Chair: Bill Flanagan (Black Diamond Services)

This panel session will discuss tools and techniques available to assess project risk. This session will help you to keep your projects out of a ditch and help you to get out if you do get in. Other "life-saving" tips will be discussed. Just one tip will save you the cost of this trip.

Panel Discussion on Challenged and Failed Projects: How to Identify Them Early Enough to Take Corrective Action, How to Intervene, and How to Recover with Grace

PANELISTS:

- Dave Dellario (Constellation Energy)
- Casey Corcoran (APS)
- Dick Miller (Bechtel Power Corporation)
- Mike Delowery (Progress Energy)
- Bill Flanagan (Black Diamond Services)

MONDAY, AUGUST 15, 2011 • 12:00 P.M. -1:30 P.M.

Walk Around Lunch in the Vendor Technology Expo

Co-sponsored by Curtiss-Wright Nuclear and Westinghouse Electric Company Location: Great Hall 1, 2, 3

MONDAY AFTERNOON TECHNICAL SESSIONS

MONDAY, AUGUST 15, 2011 • 1:30 P.M. -3:00 P.M.

Executive Track

Working with the Regulator and Industry to Ensure Public Support for Industry Growth

Location: Diplomat Ballroom 1 Session Chair: Don Eggett (AES)

SPEAKERS:

- Martin J. Virgilio (US NRC Deputy Executive Director for Reactor and Preparedness Programs)
- Tony R. Pietrangelo (NEI Senior Vice President and Chief Nuclear Officer)

Engineering Track

Engineering Episodes in Component Equipment Reliability Location: Regency Ballroom 1

Session Organizer: George Attarian (Progress Energy)

This is a time to share some solutions to component equipment reliability problems. Why reinvent the wheel. This sessions that focuses on specific improvements in component equipment reliability from a technical perspective.

- Team Efforts Improving Valve Equipment Reliability Sharing Knowledge and Experience, Kenneth Hart (*AP Services, Senior Consultant*)
- Equipment Reliability Program Efficiencies and Improvements Gained Through Software Automation, Dave Sonnett (*Constellation Energy Nuclear Group, Fleet Engineering Supervisor*) and Evan Niemkiewicz (*Ventyx, Inc., and ABB Company, Sr. VP - Enterprise Applications*)

Operations Track

Operations and Training Panel for Improving Shift Crew Performance through Training and Evaluation Location: Diplomat Ballroom 2 Session Organizer: Cheryl Gayheart (Exelon Fleet Operations Director)

The panelists will lead a question and answer session on Operator Training.

PANELISTS:

- Greg Kilpatrick (RNP Manager of Operations)
- Mike McKenna (Operations Director, Exelon Oyster Creek)
- John Collins (Shift Operations Manager, Duke Energy)
- Cheryl Gayheart (Exelon Fleet Operations Director)

Maintenance Track

Taking Advantage of Modern Technologies for Nuclear Power Plant Productivity Improvements in Maintenance and Other Activities Location: Regency Ballroom 2

Speakers:

- Innovative Use of Modern Technologies for Productivity Improvements in Maintenance and Other Activities to Support Competitive Nuclear Power Plant Operation, Joe Naser (*EPRI*)
- The Other Side of The Productivity Coin; Your ERP/EAM Platform and You, Gus Spivak and Brian Williams (*PwC*)

Regulatory Relations & Oversight Issues Cyber Security Regulatory Session (Combined with Cyber Security/Digital I&C Issues Track) Location: Atlantic 2 & 3

Session Organizers: Trent Wertz (US NRC) and Pete Gaillard (TVA)

Cyber Security - discuss current issues with cyber security plans, NEI 08-09 Rev. 6 and other current issues. NEI 08-09 was developed to assist licensees in developing their Cyber Security Plan as required by 10 CFR 73.54.

SPEAKERS:

- Barry Westreich (US NRC)
- Laura Snyder (TVA)
- Cynthia Broadwell (Progress Energy)
- Brad Yeates (Southern Nuclear)

Long Term Operation Large Capital Refurbishments for Long Term Operation Location: Diplomat Ballroom 5

Session Lead: Ted Quinn (ANS, Past President)

SPEAKERS:

- Oconee LTO Project, T. Ray (Duke Energy)
- NextEra (FPL) Nuclear Capital Improvement Project, G. St. Pierre (*NextEra*)
- Panel Discussion: Role of Up-rates on Long Term Operation, J. Carneal (*GEH*), J. Goossen (*WEC*), Craig Lambert (*Exelon Nuclear*)

Knowledge Management & Work Force Issues Long Range Workforce Planning Case Studies Location: Diplomat Ballroom 4

SPEAKERS:

- Early Childhood Education and Long Term Workforce Planning Risk Mitigation, Laura Clise (*AREVA*)
- APS Long Range Workforce Planning Process, David Heler (APS)

Performance Improvement

PI Perspectives: PI Progress Perspective, Employee Concerns Perspective: Why after all this time and focus on the improvement of human performance, we are still not where we want to be? Location: Room 212/213

What are the factors that have kept human performance problematic over decades of attention?

SPEAKERS:

- Rey Gonzalez (Practicing Perfection Institute)
- Dick Swanson (Performance Management Initiative)

Risk Management Development of External Event PRA Models Location: Atlantic Ballroom 1 Session Organizer: Stuart Lewis (EPRI)

This session will address the development of models needed to represent events that have an impact on risk from outside the facility, namely external events. Externally generated hazards may have a common impact on multiple systems that impact both the operation and mitigation of events at the facility.

New Reactor

Continuation of the Previous New Reactor Session Location: Diplomat Ballroom 3 Session Chair: Charles Pierce (AP1000 Licensing Manager)

SPEAKERS:

- Plans and Experience for NRC Region II Oversight of New Reactor Construction, Jim Moormon (US NRC Region II)
- Industry Perspectives on NRC Construction Inspection Program, Russ Bell (*NEI Director of New Reactors*)
- Vogtle Lessons Learned during Onsite Construction, Randy Johnson (SNC Vice President Quality and Regulatory Compliance)

Cyber Security/Digital I&C Issues Cyber Security Regulatory Session (Combined with Regulatory Relations & Oversight Issues Track) Location: Atlantic 2 & 3 Session Organizers: Trent Wertz (US NRC) and Pete Gaillard (TVA)

Please see the session description under the Regulatory Relations & Oversight Issues Track.

Work/Project Management

Risk Conversations: Risk Management for Small Projects and Tasks Location: Regency Ballroom 3

Session Chair: Bill Flanagan (Black Diamond Services)

This will be a facilitated session focused on developing techniques for initiating conversations with your project stakeholders to identify and assess the risks associated with small projects. Everything you need for risk management can be carried in your shirt pocket.

MONDAY, AUGUST 15, 2011 • 3:00 P.M. –3:30 P.M. Afternoon Refreshment Break in the Vendor Technology Expo *Location: Great Hall 1, 2, 3*

MONDAY AFTERNOON TECHNICAL SESSIONS

MONDAY, AUGUST 15, 2011 • 3:30 P.M. – 5:00 P.M. Executive Track

Panel Discussion – Strategic Planning to Support Growth in a "Green" Nuclear Industry Location: Diplomat Ballroom 1 Session Chair: Don Eggett (AES)

PANELISTS:

- Dr. Ronaldo Szilard (INL Director, LWR Sustainability Technical Integration Office and Deputy Director, Consortium for Advanced Simulation of LWRs)
- Neil Wilmshurst (EPRI Vice President of the Nuclear Sector)
- Paul Rushton (SNC)
- Lisa Brattin (INPO)
- Martin Virgilio (US NRC)
- Tony Pietrangelo (NEI)

Engineering Track

Understanding Equipment Reliability Workload (Combined with Work/Project Management and Maintenance Tracks) Location: Atlantic 2 ざ 3 Session Organizer: Jon Anderson (Anderson, Chavet & Anderson Inc.)

This is a dynamic Workshop for utilities that have more "Honey than Do"? Join the debate with Engineering, Work Management and Maintenance to solve this problem of too much work and too little time.

A pre-conference survey will be conducted to allow participants to identify their most significant issues associated with the identification, prioritization and performance of work.

Identify and prioritize the most urgent issues associated with the identification and performance of work. Identify causes of these issues.

FACILITATORS:

- Dan Strong (Progress Energy)
- Jon Anderson (Anderson, Chavet & Anderson Inc.)
- John Klein (TVA)

Operations Track

Operations and Training Panel for Improving Shift Crew Performance through Training and Evaluation Location: Diplomat Ballroom 2

Industry Experts will explain techniques and answer questions on the topic.

Maintenance Track

Integrating Approach to Managing Our Workload (Combined with Work/Project Management and Engineering Tracks) Location: Atlantic 2 & 3

Session Organizer: Jon Anderson (Anderson, Chavet & Anderson Inc.)

Please see the session description under the Engineering Track.

Regulatory Relations & Oversight Issues

Buried Piping / Groundwater Protection - review industry initiatives on buried piping and groundwater protection. Location: Regency Ballroom 1

Session Organizers: Eric Leeds (US NRC), Trent Wertz (US NRC), Pete Gaillard (TVA) and Gordon Arent (TVA)

Review industry initiatives on buried piping and groundwater protection. Utilities have developed Buried Pipe Integrity Programs and are performing risk ranking of piping segments. The NRC has developed a Buried Piping Oversight Plan to verify that licensees are adequately implementing the industry initiative.

SPEAKERS:

- Jim Riley (NEI)
- Eric Leeds (US NRC)
- Rich Hall (Exelon)

Long Term Operation Enhanced Safety Assessment for LTO Location: Diplomat Ballroom 5 Session Lead: Stephen Hess (EPRI)

Speakers:

- DOE / EPRI R&D for Advanced Risk and Safety Assessment Tools, R. Youngblood (INL)
- Risk-Informed Safety Margins and Application to Loss of Feedwater Event, R. Sherry (*ERIN Engineering*)
- Next Generation PRA and Configuration Risk Modeling Tools, S. Hess (*EPRI*)

Knowledge Management & Work Force Issues Renewable Energy Technologies Part I Location: Diplomat Ballroom 4

SPEAKERS:

- Renewable Energy Introduction and The Geopolitics of Energy, Dr. James Conca (*RJ Lee Group*) and Vince Gilbert (*EXCEL Services Corporation*)
- Wind and Solar Case Study, Matt Dryden (AREVA)
- Muddy Run-Conowingo Pumped Storage Case Study, Ken Poletti (*Exelon*)

Performance Improvement

PI at Yucca Mountain Project Through Collaboration Location: Room 212/213

Session Organizer: Ward Sproat (Bechtel Power Corporation)

The presenters will discuss the intervention to instill a performance culture at DOE from mid-2006 through 2008 and how it resulted in the successful completion and submittal of the Yucca Mountain license application.

SPEAKERS:

- Leopoldo Sequel (Leadership Everywhere, LLC)
- Hugh Diamond (Philadelphia Electric Company)
- Fred Valentino (PECO)

Risk Management

How Fukushima will affect Risk Management Location: Atlantic Ballroom 1 Session Organizer: Greg Krueger (Exelon Nuclear)

The events at Fukushima have highlighted the broad aspects of the use of PRA model information and implementation response of insights from probabilistic models. The reality of the events as compared to those developed as part of PRA models will be investigated during the session. Operator response to significant plant events and mitigation of those events through the use of severe accident management guidance will serve as the focus for the discussions.

SPEAKERS:

- Safety Function Fault Trees, Bill Nelson (Det Norske Veritas-USA)
- The Role of PRA & DID Post-Fukushima, Doug True (ERIN Engineering)
- Long Term Station Blackout Strategies, Greg Krueger (Exelon Nuclear), Doug True (ERIN Engineering)

New Reactor

Current Issues and Challenges with Licensing New Reactors Location: Diplomat Ballroom 3

Session Chair: Mark McBurnett (Nuclear Innovation North America, Sr. VP)

This session will cover lessons learned and current challenges with implementation of 10CFR52.

SPEAKERS:

- Licensing Challenges and Lessons Learned in New Reactor Reviews in the U.S., David Matthews (US NRC Office New Reactors Director Licensing)
- Industry Perspectives on First and Future Combined License Applications, Russ Bell (*NEI Director of New Reactors*)
- Experience and Lessons Learned from Implementation of Part 52, Mark McBurnett (*Nuclear Innovation North America, Sr. VP*)

Cyber Security/Digital I&C Issues

Current Status of Setpoint Issues and TSTF 493 implementation Location: Regency Ballroom 2

Session Organizer: Richard Rusaw (Senior Project Manager, EPRI)

SPEAKER:

- Status of Setpoint Issues TSTF-493 Implementation Update, Richard Rusaw (Senior Project Manager, EPRI)
- Jerry Voss (EXCEL Services Corporation)
- David Rahn (US NRC)
- Wayne Marquino (GE)

Work/Project Management

Integrating Approach to Managing Our Workload (Combined with Maintenance and Engineering Tracks) Location: Atlantic 2 & 3 Service Chains Den Strang (Present French) and

Session Chairs: Dan Strong (Progress Energy) and Jon Anderson (Anderson, Chavet & Anderson Inc.)

Please see the session description under the Engineering Track.

TUESDAY, AUGUST 16, 2011 • 7:00 A.M. - 8:30 A.M.

Sunrise Breakfast Sponsored by Sargent & Lundy Location: South Palm Court

TUESDAY MORNING GENERAL PLENARY

TUESDAY, AUGUST 16, 2011 • 8:30 A.M. –10:00 A.M. General Plenary Session

Location: Grand Ballroom

KEYNOTE SPEAKER: James Ellis (CEO INPO)

TUESDAY, AUGUST 16, 2011 • 10:00 A.M. -10:30 A.M.

Mid-Morning Refreshment Break in the Vendor Technology Expo Sponsored by AREVA DZ LLC Location: Great Hall 1, 2, 3

TUESDAY MORNING TECHNICAL SESSIONS

TUESDAY, AUGUST 16, 2011 • 10:30 A.M. -12:00 P.M.

Executive Track

Executive Roundtable and Networking Session Location: Diplomat Ballroom 1 Session Lead: Amir Shahkarami (CEO, Exelon Nuclear Partners)

Engineering Track *Emergent Industry/Regulatory Issues Impacting Engineering Location: Diplomat Ballroom 2*

The Nuclear Utility Industry has committed to an inspection program for underground piping and tanks through Revision 1 of NEI 09-14, Guideline for the Management of Underground Piping and Tank Integrity. This presentation will provide an overview of projects that EPRI has worked on to find and bring technologies to the nuclear industry to inspect buried piping as well as assess the capabilities of specific technologies such as guided wave, electromagnetics, and traditional ultrasonics. Buried piping at the Fleet level presents unique challenges for Engineering. Exelon will present a utility fleet approach to buried piping.

Speakers:

- Finding NDE Solutions for Nuclear Underground Piping Applications, Mike Quarry *(Senior Project Engineer)* and Steve Swilley *(Program Manager NDE)*
- Buried Piping Integrity- "The Exelon Fleet Approach," Richard Hall (Component Programs Senior Manager, Exelon Generation Company)

Operations Track *Observing for Operator Fundamentals*—Workshop *Location: Diplomat Ballroom 3*

Session Organizer: Greg Kilpatrick (RNP Manager of Operations)

RNP's perspective on observing and monitoring crews for effective use of operator fundamentals. This workshop will draw heavily from lessons learned from the March 28, 2010 event at the Robinson Plant.

Maintenance Track

Water Intrusion Mitigation Methods-For Heavily Reinforced Concrete Structures Location: Diplomat Ballroom 4 Session Organizer: Brent Anderson (Structural Group)

Regulatory Relations & Oversight Issues Criticality

Location: Regency Ballroom 2 Session Organizers: Eric Leeds *(US NRC)*, Trent Wertz *(US NRC)*, Pete Gaillard *(TVA)* and Gordon Arent *(TVA)*

Criticality - this session will provide a forum for discussions on recently developed criticality requirements and recent utility submittals.

SPEAKERS:

- Marc Nichols (NEI)
- Bill Ruland (US NRC)
- Greg Halnon (First Energy)

Long Term Operation

Concrete and Containment for LTO Location: Diplomat Ballroom 5 Session Lead: James Wall (EPRI)

SPEAKERS:

- Chloride Attack of Concrete Structures, Y. LePape (EDF)
- Comprehensive Containment Examination for LTO, P. Bruck (Lucius Pitkin)
- Spent Fuel Pool Integrity, J. Wall (EPRI)

Knowledge Management & Work Force Issues Renewable Energy Technologies Part II Location: Regency Ballroom 1

SPEAKERS:

- Grid Size Batteries and Gas Energy Storage Systems, Devon Branch-Elliman (City College of New York)
- Bio Mass Pilot Demonstration at Savannah River Site, Ken Chacey (Ameresco)
- Geothermal Power, Gwen Holdmann (University of Alaska)
- Knowledge Transfer Across Generations to Improve Plant Safety and Performance, Martin Marquardt (President, Tosan Inc.) and Kevin Smith (VP, Tosan Inc.)

Performance Improvement Improving Performance with Hu—The Human Element Location: Room 212/213

This session will engage attendees and presenters on the role that HU played and will play in a spectrum of events that have recently occurred, including:

- transuranic uptake to over 550 workers at a nuclear power station;
- maintenance services provider challenges and successes with a Master Services Agreement for 12 nuclear units

SPEAKERS:

- Dr. Mike Quinn (Workplace Cornerstone Group)
- Donald Richard Ford (Tennessee Valley Authority)
- Dr. Dave Hutchson

Risk Management Developing High Performing Teams Location: Atlantic Ballroom 2 Session Organizer: Amir Afzali (Southern Company)

The application of risk informed processes within a utility are not the sole responsibility of the Risk Management organization, rather, an integrated organizational team is needed to support and implement these processes. The development of a cross organizational team is key in providing the focus and sponsorship for complex risk-informed initiatives.

New Reactor

Challenging Status Quo: Will Small Reactors Change The Nuclear Paradigm? Location: Regency Ballroom 3 Session Chair: Phillip Moor

Several provocative looks into non-traditional applications and regulatory approaches.

SPEAKERS:

- Issue Identification and Ranking Process A Structured Approach to NRC Readiness for SMR Review, Mike Mayfield (Director, NRC Advanced Reactors Branch)
- Pro's and Con's of Part 50 and Part 52 Licensing Process, Doug Rosinski (Ogletree, Deakins, Nash, Smoak & Stewart, P.C.)
- Fuel: Challenges to Traditional Size and Cycle Length, NRC Nuclear Material Safety and Safeguards, Speaker – TBD
- Industry Perspective on SMR Licensing Differences From the Large LWRs, Doug Walters (Nuclear Energy Institute, VP Regulatory Affairs)

Cyber Security/Digital I&C Issues Future and Current Digital I&C Issues Location: Atlantic Ballroom 1

Session Organizer: Richard Wood (ORNL)

Speakers:

- Experience of Modernization and Operation of FPGA-based NPP I&C systems, I. Bakhmach, O.Siora, V. Sklyar, A. Andrashov
- From NDE to Online Monitoring and Prognostics for Light Water Reactors, Leonard Bond, Pradeep Ramuhalli, Ryan Meyer, and Iamie Coble
- NRC Research on Digital I&C Issues, Russell Sydnor

Work/Project Management

Improving Work Management Through Process Improvement Location: Atlantic Ballroom 3

Session Chairs: Ian Falk and Chris Vlahoplus (ScottMadden, Inc.)

Panelists will provide success stories of how their work week processes have become more efficient through process improvement. Through presentations and discussion we will provide proven solutions which can help attendees improve performance.

This session will "super charge" your Work Management process on with ideas from our performance improvement professionals.

SPEAKERS:

- · Continuous Improvement: Achieving Fundamental Process Efficiency - "What if," Dan Gron (Exelon Nuclear)
- Improving the T-Week Process, Hearst Damen (Constellation Energy)
- Other Industry Panelists to be determined

TUESDAY, AUGUST 16, 2011 • 12:00 P.M. -1:30 P.M.

Walk Around Lunch in the Vendor Technology Expo Sponsored by GE Hitachi Nuclear Energy Location: Great Hall 1, 2, 3

TUESDAY AFTERNOON TECHNICAL SESSIONS

TUESDAY, AUGUST 16, 2011 • 1:30 P.M. -3:00 P.M.

Engineering Track Strategies for Addressing ECCS Suction Strainer Regulatory Concerns for PWR's and BWR's

Location: Diplomat Ballroom 1 Session Organizers: Stuart A. Cain, Ph.D. (*Alden*), Fariba Gartland (*AREVA NP*)

Few nuclear power industry regulatory issues have been as long-lived as the concerns about ECCS sump strainer performance during a postulated high energy line break, starting with the issuance of Unresolved Safety Issue (USI) A-43, published in 1979, all the way up to the issuance of Draft Regulatory Guide DG-1.82 Rev 4 in July, 2010.

It is estimated that more than 1 billion dollars has been spent dealing with the issue to date, most by licensees for plant modifications and supporting tests and analyses. While the BWR/PWR Owners Groups, plant engineering teams, and fleet engineering groups are well aware of the urgency now associated with this issue, it can be difficult to find a high level comprehensive summary.

This session will provide an overview of the history of the regulatory concerns, as well as how industry has responded in the past, successful strainer solution and testing methods for meeting regulatory requirements, and the strainer bypass fuel concerns that are now gaining heightened scrutiny by the regulators.

Speakers:

- A Short History of ECCS Sump Strainer Regulation and Industry Response, Christopher Kudla (*Consultant, Performance Contracting, Inc.*)
- ECCS Sump Strainer Head Loss Testing Methodology for Successful Resolution, Ludwig Haber, Ph.D. (Senior Engineer, Alden)
- ECCS Sump Strainer Debris Bypass Concerns and Fuels Testing, Timothy Andreychek (*Fellow Engineer, Westinghouse Electric Co.*) and Fariba Gartland (*Senior Project Manager, AREVA NP Inc.*)

Operations Track Salem/Robinson Dual Case Study Location: Diplomat Ballroom 2

The cases will describe the culture changes (drivers and results) at Salem since 1994 and Robinson over the last year concluding with a Change Execution Framework discussion.

SPEAKERS:

- Mike Gwirtz (PSEG Operations Functional Area Manager)
- Bob Duncan (Robinson Vice President)
- Don Groover (BST Senior Vice President)

Maintenance Track

Increasing Operation Efficiency and Workforce Productivity Without Compromising Safety Using an Integrated Mobile EOM Location: Diplomat Ballroom 3 Session Organizer: Chuck McVicker (VP, Nuclear Solutions)

Regulatory Relations & Oversight Issues Quality Licensing Submittals Location: Regency Ballroom 2

Session Organizers: Eric Leeds (US NRC), Trent Wertz (US NRC), Pete Gaillard (TVA) and Gordon Arent (TVA)

Quality Licensing Submittals and Related Issues – this panel discussion will explore how the NRC and licensees can improve their licensing activities and submittals.

SPEAKERS:

- Joe Giitter (US NRC)
- Charles Pierce (Southern Company)

Long Term Operation

Advanced I&C and Information Technology Needs for LTO Location: Diplomat Ballroom 5 Session Lead: Ken Thomas (INL)

SPEAKERS:

- Advanced I&C Working Group a DOE/EPRI/Utility Collaboration, K. Thomas (*INL*)
- Addressing Human Performance with Technology, G. Robison (*Duke Energy*)
- Reducing Error / Increasing Efficiency: New Models for Nuclear Plant Outages, K. Moser (*Exelon Nuclear*)
- SONGS Advanced Alarm Systems, R. Ewing (SCE)

Knowledge Management & Work Force Issues

Energy Parks, DOE Asset Revitalization and Supply Chain Development Panel Location: Diplomat Ballroom 4

SPEAKERS:

- Energy Parks Introduction and DOE Initiative Description, Gary Gilmartin (*President, Gilmartin Engineering Works*)
- Oak Ridge Energy Initiatives Gary Gilmartin (*President, Gilmartin Engineering Works*)
- Mid-Columbia Energy Park, Jack Baker (VP Energy Northwest)
- AREVA Energy Park Perspective, Matt Dryden (AREVA)
- Savannah River Clean Energy Initiatives, Ron Schroder (VP, Mission Development, SRNS)

Performance Improvement

Improving Performance with Safety Culture Within an Engaged, Thinking Organization

Location: Room 212/213

Session Organizers: Bill Nelson (Det Norske Veritas) and Tim Bowman (South Texas Project)

US nuclear power plants are working to implement the guidance of NEI 09-07 "Fostering a Strong Nuclear Safety Culture." At the same time, recent operating experience has highlighted issues that may indicate weaknesses in important barriers that are required to maintain high levels of nuclear safety, pointing to the need for an "engaged, thinking organization." Speakers will be asked to reflect on practical actions that can be taken that will encourage both a strong nuclear safety culture and an engaged, thinking organization.

SPEAKERS:

- Tim Bowman (South Texas Project)
- Mike Gaffney (Salem/Hope Creek)
- Jim Lynch (INPO)

Risk Management

Developing the New Generation of Risk Engineers Location: Atlantic Ballroom 1 Session Organizer: Bob Rishel (Progress Energy)

PRA models and the interpretation of the models require an understanding of the integrated interaction between systems and operator response under unique and postulated dynamic accident conditions. The breadth of system and operation knowledge required to analyze the risk associated with a particular site is considerable. In addition, the techniques used in developing sophisticated probabilistic models require training that is not currently provided. Development of training programs for the new generation of risk professionals will be the topic of this session.

New Reactor

Challenging Status Quo: Looking Beyond Licensing Activities for Small Reactors

Location: Regency Ballroom 3 Session Chair: John Mahoney (Entergy)

Small Reactors have the potential to provide an alternative baseload power generation to facilitate the retirement of smaller, less efficient fossil plants. They could be incrementally deployed in regions of the U.S. based upon demand growth and transmission support. They could supply process heat and steam in addition to the conventional electric generation.

This session will explore the many opportunities and challenges for the U.S. industry and government to be leaders in SMR technology.

PRESENTATIONS:

- Views From the Generation and Transmission Co-Operatives, Philip Moor
- Non-traditional Owners/Operators: Business Models and Risk, Randy Douet (VP Nuclear Business Development, Entergy Services, Inc.)
- PJM Subcommittee Perspective, Aaron Berner (*PJM Intermittent Resources Task Force*)
- Transmission Support and Dispatching What challenges and advantages do SMRs present?, Speaker TBD

Cyber Security/Digital I&C Issues

Demystifying Digital Technology Projects Panel Discussion (Combined with the Work/Project Management Track) Location: Atlantic 2 & 3

Please see the session description under the Work/Project Management Track.

Work/Project Management Demystify Digital Technology (Combined with the Cyber Security/Digital I&C Issues Track) Location: Atlantic 2 & 3 Session Chair: Cynthia Broadwell (Progress Energy)

Presentations and panel discussion with a Project Management focus will provide techniques to navigate successfully through the requirements associated with digital systems and components implementation. Selected topics will increase the Project Manager's awareness for addressing digital considerations early so that pitfalls can be avoided. Information to enhance understanding of regulatory expectations include licensing issues, deliverable sequencing, physical and cyber security, software lifecycle documentation, and supply chain controls.

If Digital Technology projects are like a Rubik's Cube this is the session for you. Demystify it here!

SPEAKERS:

- Cyber Security Industry and Regulator Activity from 9/11/2001 through Today, Brad Yeates (*Southern Company*)
- Tips for Successful Management of Digital Projects, Cynthia Broadwell (*Progress Energy*)
- Digital and Cyber Projects that Impact Licensing, Geoff Schwartz (*Entergy*)
- Digital and Cyber Regulatory Considerations Operating and New Plants, Matt Gibson (*Progress Energy*)
- War Stories Failure to Consider Digital and Cyber Implications Early in the Project, Panel / Jan Geib (SCANA contributor)

TUESDAY, AUGUST 16, 2011 • 3:00 P.M. –3:30 P.M. Afternoon Refreshment Break in the Vendor Technology Expo *Location: Great Hall 1, 2, 3*

TUESDAY AFTERNOON TECHNICAL SESSIONS TUESDAY, AUGUST 16, 2011 • 3:30 P.M. –5:00 P.M.

Engineering Track Managing Engineering Challenges–Panel Session Location: Diplomat Ballroom 1 Session Organizers: Scot Greenlee (Exelon); and George Attarian (Progress Energy)

Operations Track (Continuation of Previous Session) Location: Diplomat Ballroom 2

Maintenance Track Panel Discussion on Current Issues in Maintenance Location: Diplomat Ballroom 3 Session Organizer: Chris Wiegand (Invensys)

Regulatory Relations & Oversight Issues Lessons Learned / Best Practices on Extended Power Uprates

Location: Regency Ballroom 2 Session Organizers: Eric Leeds (US NRC), Trent Wertz (US NRC), Pete Gaillard (TVA) and Gordon Arent (TVA)

Lessons Learned / Best Practices on Extended Power Uprates discuss the status of and issues related to current Extended Power Uprates.

SPEAKERS:

- Joe Giitter (US NRC)
- Liz Abbott (NextEra)
- Mike Weber (Westinghouse)
- Ken Wilson (Progress Energy)

Long Term Operation Integrated Approach to Life Cycle Management Location: Diplomat Ballroom 5 Session Lead: Charles Mengers (EPRI)

SPEAKERS:

- EPRI Integrated Life Cycle Management (ILCM) Initiative, C. Mengers *(EPRI)*
- ILCM & Life Cycle Management at STP, G. Schinzel (STP)
- Optimization of Life Cycle Planning for Large Transformers, P. Walsh *(CENG)*

Knowledge Management & Work Force Issues Sustainable Nuclear Workforce Development for Multiple Utilities

Location: Diplomat Ballroom 4

SPEAKERS:

- Part I: Two-State Regional Response to Nuclear Workforce Demands, Susan Windsor, PhD (*President, Aiken Technical College*), and Mindy Mets (*Program Manager, SRSCRO Nuclear Workforce Initiative*)
- Part II: Establishing NUCP Programs to Meet Multiple Utility and DOE Workforce Training Needs, Tracy P. Pierner, PhD (*PE, Dean of Technical Education, Aiken TC*)
- Next Generation Nuclear Workforce-Nuclear Engineering Technology, Jo Anne Robinson, MEd (*Dean, Information and Engineering Technology, Augusta Technical College*)
- Part III: Panel Discussion: Educator and Employer Perspectives on Nuclear Workforce Development, Challenges and Solutions, Paul Rushton (Southern Company), Scott Macfarland (Mgr. Corp WF Planning, SCANA), Dr. Tracy Pierner (Aiken TC, Dean Tech Ed, Aiken TC), Jo Anne Robinson (Dean, Inform/Eng, Augusta TC), Dr. Susan Winsor (President, Aiken TC), Vince Gilbert (CKO, EXCEL Services Corporation)

Performance Improvement

Improving Performance by Identifying, Monitoring, and Responding to Critical Parameters Location: Room 212/213 Session Organizer: Dr. Bill Corcoran (NSRC Corporation)

This session will explore past harmful events due to failures to identify, monitor, and/or respond to critical parameters.

Speakers:

- Dr. Mike Quinn (Workplace Cornerstone Group)
- Bill Nelson (DNV)

Risk Management

Roundtable Discussion additional topics Location: Atlantic Ballroom 1 Session Organizer: Bob Rishel (Progress Energy)

New Reactor

Lessons Learned and Challenges with Environmental Reviews for Early Site Permits and Combined Licenses Location: Regency Ballroom 3 Session Chair: Greg Hatchett

This session will cover progress and prospects for ESPs, including new NEI guidelines, potential environmental process efficiencies and other improvements (including topics pertaining to small reactors).

Speakers:

- Environmental Process Efficiencies, Greenfield Site Issues General, Dave Distel (*Exelon Nuclear*)
- Environmental Process Efficiencies, Greenfield Site Issues Environmental, JT Trembley (*Exelon Nuclear*)
- Environmental Issues in Licensing: It's not Just NEPA, Dr. Michael Masnik (US NRC)
- Environmental Process Efficiencies, Generic Opportunities for Improvement, Jamie Mallon (*PSEG*)

Cyber Security/Digital I&C Issues

Part 2 Demystifying Digital Technology Projects Panel Discussion (Combined with the Work/Project Management Track) Location: Atlantic 2 & 3 Session Chair: Cynthia Broadwell (Progress Energy)

Project Management/Work Management Part 2 Demystifying Digital Technology Projects Panel Discussion (Combined with the Cyber Security/Digital I&C Issues Track)

Location: Atlantic 2 & 3

Session Chair: Cynthia Broadwell (Progress Energy)

TUESDAY, AUGUST 16, 2011 • 5:00 P.M. - 6:30 P.M.

Reception in the Vendor Technology Expo Appetizers Sponsored by the Vendor Technology Exhibitors

Beer/Wine/Soft Drinks Co-Sponsored by Northrop Grumman Power/ Control Systems and Nuclear News Location: Great Hall 1, 2, 3

TUESDAY, AUGUST 16, 2011 • 8:00 P.M. – 11:00 P.M.

EXCEL Services Corporation Evening Event *Return of the Pirates! Location: Grand Ballroom*

WEDNESDAY, AUGUST 17, 2011 • 7:30 A.M. - 8:30 A.M.

Breakfast in the Vendor Technology Expo Location: Great Hall 1, 2, 3

WEDNESDAY MORNING GENERAL PLENARY

WEDNESDAY, AUGUST 17, 2011 • 8:30 A.M. – 10:00 A.M.

General Plenary Session

How NASA Moved on after the Shuttle Tragedies and Innovation in a Safety Constrained Environment" Location: Atlantic 1, 2, 3

KEYNOTE SPEAKER:

Dr. Charles Camarda (Senior Advisor for Innovation to the Office of Chief Engineer, Johnson Space Center)

WEDNESDAY, AUGUST 17, 2011 • 10:00 A.M. -10:30 A.M.

Mid-Morning Refreshment Break Co-Sponsored by Shaw Group and Tennessee Valley Authority Location: Grand Ballroom Foyer

WEDNESDAY MORNING TECHNICAL SESSIONS

WEDNESDAY, AUGUST 17, 2011 • 10:30 A.M. -12:00 P.M.

Operations Track Innovative Solutions for Configuration Control Location: Diplomat Ballroom 2

This session will showcase the latest industry trends and solutions for improving performance and reducing configuration control events, and some robust operational barriers and methods of tracking events to improve performance. This session will be lead by Exelon's Richard Stott, the corporate configuration control program owner.

SPEAKERS:

- Richard Stott (Exelon Corporate Operations and Maintenance)
- Jeff Humenick (Exelon Corporate Operations and Maintenance)

Regulatory Relations & Oversight Issues Engaged Thinking Organizations Location: Diplomat Ballroom 3

A number of significant events revealed unacceptable weaknesses in important barriers to sustained high levels of nuclear safety. The underlying causes of these events involve all levels of the organizations and include supervisor oversight, worker performance, recognition and mitigation of risk and tolerance of repetitive problems. This session will discuss the underlying issues and recommendations to correct the situations that allowed these events to occur.

Speakers:

- Eric Leeds (US NRC)
- Amanda Donges (INPO)

Long Term Operation Aging Degradation of Metal Materials Important to LTO Location: Diplomat Ballroom 5 Session Lead: Richard Tilley (EPRI)

SPEAKERS:

- Long Term Aging Management of BWR Internals, C. Wirtz (*FENOC*)
- Initial Application of EPRI MRP-227 for PWR Internals Assessment at Ginna Station, B. Rudell (CENG)
- Managing RPV Embrittlement for LTO, R. Tilley (EPRI)

Knowledge Management & Work Force Issues International Knowledge Management Case Studies Location: Diplomat Ballroom 4

SPEAKERS:

- IAEA Process-oriented Coordinated Research Project, Zoltan Pasztory (IAEA NKM Unit Group Leader), invited
- POKM SNERDI Case Study, Jiajie Pan (SNERDI POKM I&C Project Engineer)
- Implementation of IAEA GS-R3 Case Study: Processoriented Management – System KKL Leibstadt Switzerland, Thomas Gysel (*Leibstadt NPP Business and Quality Management Director*)
- Eastern EU POKM Case Study, Kent Freeland (IT and Configuration Management Consultant, Worley Parsons)

Maintenance

Work Shop Part 2 – Action Plans to Implement an Integrated Approach to Managing Work Load (Combined with Work/Project Management Track) Location: Regency Ballroom 2 Session Chairs: Dan Strong (Progress Energy) and Jon Anderson (Anderson, Chavet & Anderson, Inc.)

Please see the session description under the Work/Project Management Track.

Performance Improvement

Performance Improvements Supported by HPRCT and CAPOG Location: Room 212/213

SPEAKERS:

- Steve Davis (The Excellence Engine, LLC)
- Graem Meteer (Ontario Power Generation)
- Kristin Zastrow

New Reactor Continuation of Previous New Reactor Session Location: Regency Ballroom 3 Session Chair: Greg Hatchett

SPEAKERS:

- Greenhouse Gas Emissions, Climate Change, and New Nuclear Power Projects: The Whole Story, Barry Zalcman *(US NRC)*
- Present Day Issues and Approaches to Siting New Power Plants and Transmission Corridors, Doug Heatwole (Manager, Gulf Coast Region, Ecology and Environment, Inc.)
- Industry Resurgence in Early Site Permits The Road Ahead, Rod McCullum (*NEI*)
- Applying Geographical Information System Based Tool for Evaluating Siting Challenges for New Nuclear Capacity - Water Availability and Electric Transmission Availability, Gary T. Mays (*Group Leader, Oak Ridge National Laboratory*)

Cyber Security/Digital I&C Issues Cyber Security Strategies Location: Regency Ballroom 1 Session Organizer: Bill Gross (NEI)

SPEAKERS:

- Cyber Security: A High Level Strategy, Glen Kaegi (Exelon)
- Cyber Security Architecture Planning, Matt Gibson (Progress Energy)
 The Anatomy of an Effective Cyber Security Solution
- The Anatomy of an Effective Cyber Security Solution, Mike Stout (*Bentley*)

Work/Project Management

Work Shop Part 2 – Action Plans to Implement and Integrated Approach to Managing Our Work Load (Combined with Maintenance Track) Location: Regency Ballroom 2 Session Chairs: Dan Strong (Progress Energy) and

Jon Anderson (Anderson, Chavet & Anderson, Inc.)

During this combined track participants from Work Shop 1 will be presented with mini-change plans developed by track organizers to eliminate the most urgent issues identified in Work Shop 1. This session is where the management of work "rubber meets the road" from Part 1. We will use the "call a friend" option to help solve these issues at your plant. Present the mini-change plans for participant debate and modification. The output from this Workshop will be implementable change plans that participants can use at their plant to eliminate issues associated with the identification and performance of work.

FACILITATORS:

- Dan Strong (Progress Energy)
- Jon Anderson (Anderson, Chavet & Anderson, Inc.)
- John Klein (TVA)

WEDNESDAY, AUGUST 17, 2011 • 12:00 P.M. - 1:30 P.M.

Closing Luncheon Location: Grand Ballroom

WEDNESDAY AFTERNOON SPECIAL PLENARY SESSIONS

WEDNESDAY, AUGUST 17, 2011 • 1:30 P.M. - 3:00 P.M.

Special Plenary Session

Fukushima Lessons Learned and Future Actions Location: Atlantic Ballroom

SPEAKERS:

- Martin Virgilio (Deputy Executive Director for Reactor and Preparedness Programs, US-NRC)
- Tony Pietrangelo (Senior VP and CNO, NEI)
- Bill Webster (Senior VP Industry Evaluations, INPO)
- Chip Pardee (Chief Operating Officer, Exelon Generation)
- Speaker from IAEA, invited

WEDNESDAY, AUGUST 17, 2011 • 3:00 P.M. –3:30 P.M. Afternoon Refreshment Break

WEDNESDAY, AUGUST 17, 2011 • 3:30 P.M. - 5:00 P.M.

Special Plenary Session Fukushima Question and Answer Panel Session Location: Atlantic Ballroom Facilitator: Amir Shahkarami (CEO ENP and Senior VP Exelon Generation)

Panelists:

- Jack Grobe (Deputy Director of the Office of Nuclear Reactor Regulation, US NRC)
- Martin Virgilio (Deputy Executive Director for Reactor and Preparedness Programs, US-NRC)
- Tony Pietrangelo (Senior VP and CNO, NEI)
- Bill Webster (Senior VP Industry Evaluations, INPO)
- Chip Pardee (Chief Operating Officer, Exelon Generation)
- Speaker from IAEA, invited

Professional Development Workshop

ANS Professional Development Workshop- Root Cause Analysis for Safety Culture and Human Performance Improvement

Thursday, August 18, 2011 8:00 a.m. 4:00 p.m.

Workshop Organizer and Chief Instructor :

Dr. Bill Corcoran, President, Nuclear Safety Review Concepts, Windsor CT 860-285-8779 firebird.one@alum.mit.edu

Materials provided: 1) Hard copy of PowerPointô Slide Show for note taking, 2) PowerPoint file (PPT) of slideshow for use in cascade training in attendeesí organizations, 3) Portable document format (Adobe PDF) file of *The Phoenix Handbook*, the ultimate investigation manual for finding profit improvement in adverse experience (a \$150.00 value), 4) Microsoft Word (DOC) file of Root Cause Analysis Report template for use at attendeesí organizations.

Workshop attendance is limited to the first thirty (30) paid applicants to provide for collegial discussion and individual attention.

Who Should Attend:

This workshop is for professionals whose current or near-term future duties involve:

- sponsoring or conducting root cause analyses of adverse events or their precursors
- training event investigation teams
- assessing the effectiveness of event investigations
- managing the outcomes of event investigations
- managing or assessing corrective action programs
- defending the regulatory aspects of event
- investigationsSafety Conscious Work Environment
- Employee Concerns Program

Who Should not Attend:

This workshop is <u>not</u> for people who want to continue thinking that:

- Event investigation is a well-defined science about which nothing new can be learned.
- There is a single right way to do root cause analysis.
- For every consequential event there is one single root cause.
- My organization could not have a serious event any time soon
- Event consequences are not controlled by business decisions.
- Event investigation should be done mainly to satisfy outside agencies.

What Will Happen:

During this workshop we will journey with the instructor through a safety culture and human performanceoriented approach to event investigation organizational learning.

We will take away immediately usable tools that have been applied successfully in the contexts of nuclear power generation, fossil power generation, electric transmission and distribution, natural gas distribution, site remediation, and manufacturing.

We will participate in hands-on individual and group work in the actual application of bottom-line customer focused techniques that take full advantage of investigatorsí abilities to do outof-the-box thinking.

This workshop will furnish the attendees with a spectrum of immediately applicable action items that will be in full compliance with most existing corrective action programs. Participant-instructor interaction will emphasize the modeling and emulation of proven investigator and management behaviors.

Workshop topics will include:

- Safety Culture in Root Cause Analysis
- Using Event Investigation as a Window into the Culture
- Standard Approaches to RCa
- Lessons to be Learned from Recent Consequential Events
- Business Incentives for Cost-effective Investigations
- Advance Preparation for Effective Investigation
- Avoiding Fatal Investigation Errors
- Effective Event Investigation Team Formation, Development, and Leadership
- Human Performance Improvement
- Investigative Ethics
- Accommodating Diversity in Team and Customers
- Asking the Right Questions
- What to do Before Management Becomes Enlightened
- Extent of Conditions and Causes
- Evaluating Event Investigation Effectiveness
- Evaluating Event Investigation Program
 Effectiveness
- State-of-the-Art Investigative Tools.

VENDOR TECHNOLOGY EXPO: FLOOR PLANS



We would like to extend a special thanks to the following organizations who have made an outstanding contribution to the success of the

2011 UTILITY WORKING CONFERENCE VENDOR TECHNOLOGY EXPO

Advanced Nuclear and Darchem Engineering, Lancaster, Pennsylvania (Booth 222)

Advanced Nuclear Services and Darchem offer engineered design, manufacture and installation of Reflective Metal Insulation (RMI) systems in one complete package. Together, we have earned prominent positions in the nuclear field with over 50 years experience. Advanced Nuclear delivers specialty solutions that include installation and maintenance of thermal insulation, reflective metal insulation (RMI), sheet metal lagging, architectural finished, passive fire protection and the removal and abatement of asbestos, lead containing materials, mold and other hazardous material. Advanced Nuclear has been the specialty construction and maintenance contractor of choice for nuclear facilities since the first nuclear power generators were built in the U.S. Whether, new construction, maintenance, outages, replacement, plant extension or uprates we offer customized designs, and safe professional installation on time, safely and on budget.

Aerofin

Lynchburg, Virginia (Booth 333)

Aerofin is a leading manufacturer of Safety Related and Non-Safety Related heat transfer equipment including extended surface cooling & heating coils, shell & tube heat exchangers, vessels, pumps, and parts. Aerofin holds ASME Certificates of Authorization for ASME N, NPT, NS, S, U and PP, and we are NUPIC audited.

Albér,

Pompano Beach, Florida (Booth 422)

Albér is the most experienced and respected name in the battery testing and monitoring industry. For over 35 years, Albér has set the standard for the highest quality battery testing and monitoring. We offer in-depth consultation, assistance on choosing the right monitoring system, and provide solid installation and repair services when needed. Albér products and service will exceed your expectations. From portable test equipment and permanent monitoring installations, custom installation and service, to education and training, we're certain you'll agree with others throughout the industry, "Albér does it right so you can trust your batteries and you can meet the NERC requirements."

Alden Research Laboratory, Inc., Holden, Massachusetts (Booth 100)

An independent laboratory and consulting company, Alden (Alden Research Laboratory, Inc.) has been performing detailed water flow analyses, environmental studies, device testing, and flow meter calibrations for the nuclear power industry since the 1960's. Nuclear power utilities and their engineering firms come to Alden to address flow related problems and testing needs that are unique in their size or complexity. The many years of experience have made the company well known and well regarded by regulatory agencies, including the U.S. NRC and the EPA.

Projects include ECCS sump strainer testing and analysis to address GSI-191, air entrainment and pump suction for water storage tanks and conveyance systems, flood protection and coastal simulation, valve testing and analysis, pump intake hydraulic modeling, fish and debris screen equipment selection and analysis, intake sediment management, flow measurement, three-dimensional smoke transport, and condenser fouling troubleshooting, among many other challenging safety and operational concerns.

Alphasource, Inc.,

Philadelphia, Pennsylvania (Booth 525 & 527)

Alphasource is a leading custom manufacturer and distributor of quality FME/FOD maintenance and safety supplies for the Nuclear Industry. Our state-of-the-art, patent pending Toolsaver SmartCart RFID System is designed specifically with the needs of Nuclear Power Generation Specialists in mind and provides unparalleled asset tracking and loss minimization solutions.

We offer our award-winning Complete FME/FOD Turnkey Program, Tarps and Protective Covers, Safety and Decon. Supplies, Spill Control Products and Nuclear Grade Wiping Cloths Program. Our products are field-proven, backed by three generations of practical experience, and our quick turnaround capabilities ensure your compliance needs are satisfied.

Altran Solutions,

Cranbury, New Jersey (Booth 225)

Altran Solutions is an engineering firm founded in 1986 to provide high quality engineering to the Power Industry.

Altran provides services in Civil/Structural, Mechanical, Electrical and I&C engineering, Material Science, Failure Analysis, Aging Management Trainings, FAC, Buried Piping and AOV/MOV Programs. Altran currently employs 220 highly qualified professionals in 7 offices across the country and 17,000 people worldwide.

American Crane & Equipment Corporation, Douglassville, Pennsylvania (Booth 406)

American Crane & Equipment Corporation (ACECO) is a leading provider of cranes, hoists and specialized lift systems for the commercial nuclear industry. American Crane has all the in-house capabilities to provide the cranes, custom components, and materials needed for new plant construction. American Crane has significant experience supplying safetyrelated single failure-proof replacement cranes and trolleys for dry spent fuel storage operations, as well as other critical lift cranes.

American Crane has performed upgrades of a variety of nuclear plant cranes, including reactor building and turbine cranes. American Crane has a full-time service group to perform maintenance of plant cranes.

Anderson, Chavet and Anderson Inc. (ACA), Goodyear, Arizona (Booth 217)

ACA is a proactive Asset Management services company. ACA was founded April 1996. The founders of the ACA team have been in the asset management / equipment reliability and plant performance improvement services business for over 20 years. ACA has completed over 75 successful projects on 4 continents and in 7 vertical industries. The projects have ranged from strategic assessments to business transformations.

ACA's primary business focus is to assist owners, operators and managers of physical assets in becoming more effective and efficient. Simply put, doing what they are supposed to do to manage their assets. ACA provides targeted consulting services and is currently developing commercial tools that allow ACA methodologies and processes to be streamlined and automated.

ACA is actively supporting the Work / Project Management Track at the 2011 ANS UWC. This Track includes a multi-discipline team Session inviting participants from Engineering, Work Management and Maintenance. This Session will provide strategies and solutions for plants inundated with work to ensure the mission of the asset is met.

A.P. Services, LLC,

Freeport, PA (Booth 331)

A.P. Services supplies mechanical packing, gaskets and seals throughout the world. Industries such as power generation, pulp and paper, petro chemical, chemical and waste water treatment have all benefited by using A.P. Services products and services. Complete Sealing Product Line For All Industrial Applications: Valve/Pump Packing Program; Turbine and Generator Gasketing; Mechanical Seals; Graphite Pressure Seals; Plant and Storeroom Surveys; Fully Certified Nuclear Materials; Software Program for Packing, Gasketing and Seals.

Aquilex WSI Nuclear Services,

Norcross, Georgia (Booth 203)

Nuclear Services that reduce Dose, Duration and Dollars

Aquilex WSI Nuclear Services is the field services leader in advanced, engineered welding solutions. We provide valve, welding and machining expertise; computer mapping; an integrated repair plan; all delivered by a highly-trained and specialized workforce. Our strong focus on technology innovation and automation leads to faster, safer, and better results for our customers.

AREVA,

Lynchburg, Virginia (Booth 231 & 232)

AREVA supplies solutions for carbon-free power generation. Its expertise and know-how in this field are setting the standard, and its responsible development is anchored in a process of continuous improvement. As the global nuclear industry leader, AREVA's unique integrated offer to utilities covers every stage of the fuel cycle, nuclear reactor design and construction, and related services. The group is also expanding considerably in renewable energies - wind, solar, bioenergies, hydrogen and storage - to be one of the top three in this sector worldwide in 2012. Every day, AREVA's 48,000 employees cultivate the synergies between these two major carbon-free offers, helping to supply safer, cleaner and more economical energy to the greatest number of people. www.areva.com

ATC-Nuclear,

Oak Ridge, Tennessee (Booth 326)

ATC-Nuclear provides a bridge for obsolescence for safety related and non-safety related components for the nuclear industry. Combining the experiences of Spectrum Technologies and Southern Testing Services, ATC-Nuclear has been successfully supporting the nuclear industry for over 20 years by providing Commercial Grade Dedication, Seismic and Environmental Qualification, Engineering and Testing. Additionally, our Sourcing Services utilize an unmatched network of parts sources with a sourcing process that produces outage saving results. Over the years our Excess and Obsolete inventory programs have provided nuclear utilities a variety of customized solutions to better manage and ultimately recover costs from their E & O inventory.

AT&F Nuclear, Cleveland, Ohio (Booth 205)

AT&F has earned a reputation for high quality and excellent service Through years of commitment, dedication to quality and continued pursuit of excellence. Providing reliable steel solutions since 1940, our unique combination of equipment capabilities, professional staff and quality systems that make us your best choice for nuclear components and materials. Quality systems include: ASME NQA-1, N, NPT, NS, N3, U, U2 & S, NA, NIAC audited. Materials fabricated and supplied include: carbon, stainless, alloy, armor, titanium, zirconium and other advanced materials. From replacement nuclear parts to finished fabrications for new builds, we have the equipment, capacity and capabilities to meet your needs. You can count on us whether for single parts or complex build-to-print nuclear fabrications.

Automated Engineering Services Corporation (AES Corp.), Naperville, Illinois (Booth 426)

Automated Engineering Services (AES) is a full service general engineering design and specialty services company. General Engineering services include Project Engineering and Management, 10 CFR Part 50 design and analysis, feasibility studies, modifications/ upgrades, licensing/regulatory compliance, engineering programs, procedures, operations support, outage services, and staff augmentation. Examples of Specialty Engineering services include security modifications, cyber security, digital upgrades, equipment qualifications/upgrades, ECCS strainer and RMI modifications, and dose reduction initiatives such as permanent lead shielding/scaffolding. AES Corp., founded in 1990, is an employee-owned engineering and project Management Company serving the US and International nuclear power industry with 130 professional members located in the Naperville, IL headquarters and branch offices in Plymouth, MN, Manitowoc, WI, and Salem, New Jersey.

Babcock & Wilcox, Charlotte, North Carolina (Booth 427)

The Babcock & Wilcox Company (B&W) is a is a leader in clean energy technology and services, primarily for the nuclear, fossil and renewable power markets, as well as a premier advanced technology and mission critical defense contractor.

As an operating group of B&W, Babcock & Wilcox Nuclear Energy, Inc. specializes in nuclear power plant components, field inspection, life-of-plant services and heavy construction, as well as the development, licensing and delivery of the B&W mPowerTM reactor a modular, scalable, passively safe, advanced light water reactor system.

Barnhart Nuclear Services,

Memphis, Tennessee (Booth 502)

Over the last three decades, Barnhart and Hake have built impressive nuclear project résumés'. Our team of nuclear experts includes personnel with backgrounds from both the construction and operations side of the nuclear industry. Barnhart's experience has brought the kind of innovative design and execution that makes money in reducing Critical Path during outages and improving ALARA in handling components in containment.

Bechtel Power Corporation, Frederick, Maryland (Booth 408)

The Nuclear Business Unit within Bechtel Power has been the active world leader in the nuclear industry for almost 60 years with more than 74,000 MW of nuclear design, construction and operating plant support experience. We have designed and/or built more than half of the nuclear power plants in the United States and 150 nuclear power plants worldwide. Currently we are leading the nuclear renaissance in the United States. Our new generation activities include: Operating plant services; Plant restarts; Plant completions; Steam generator replacements; Extended Power Uprates; Construction and operating license applications; New generation EPC; Owner's engineer/program manager.

Bentley Systems, Inc.,

(Booth 202)

Bentley is the global leader dedicated to providing comprehensive software solutions for sustaining infrastructure. Bentley's AssetWise is an information modeling platform for delivering asset lifecycle information management (ALIM), and includes a suite of interoperable applications and online services to improve the management and operational performance, safety, and compliance of infrastructure assets. The eB for Nuclear suite of AssetWise applications consists of seven integrated solutions—design engineering, compliance, information management, performance improvement, cyber security, knowledge management, and training—that ensure nuclear facilities comply fully with regulatory guidelines and remain consistent with their design basis. Visit www.bentley.com/assetwise.

Black & Veatch,

Overland Park, Kansas (Booth 433)

Black & Veatch (www.bv.com) is a global leader in the consulting, engineering, construction and operation of what the world needs now and in the future in the crucial areas of energy, water and telecommunications and in providing up-to-the-minute services in the fast changing federal and environmental markets. Founded in 1915, the employee-owned, \$2.3 billion company operates out of over 110 offices worldwide and has completed projects in more than 100 countries. Nuclear is a major business within the energy division.

Bray Controls,

Houston, Texas (Booth 133)

Bray Controls Butterfly, Check and Ball Valves and actuator products have over 20 years in research, development and field application experience. Our products meet the stringent requirements of today's power generation and fluid process industries. We feature leading-edge technology and precision manufacturing from materials of the highest quality. Rugged and reliable, the Bray product line is engineered to provide years of trouble-free service. Bray Controls, The High Performance Company.

The Brock Group,

Houston, Texas (Booth 224)

Since 1947, The Brock Group has offered clients a small company interaction with the resources available from one of the largest specialty craft providers in the United States. Continuing the tradition of integrity and performance excellence, Brock's 16,000 employees offer industry the complete single source benefit of doing business with a financially strong and resource abundant contractor. With 50-plus operational centers strategically located throughout the United States and Canada, Brock offers scaffolding, specialized shoring, coatings, insulation and associated services to a diverse industry that includes Nuclear, Petrochemical, Refining, Power Generation, Offshore, Logistics, Pipelines & Transmission, and Pulp & Paper. Brock's organization structure and internal cooperative culture provide expert leadership for nationally commended, award winning safety and management processes. Brock provides performance in services which sequentially supports and strengthens our customers' strategic competitive advantage and bottom line profitability.

Burns & McDonnell, Kansas City, Missouri (Booth 124)

Founded in 1898, Burns & McDonnell is a 100 percent employeeowned, full-service engineering, architecture, construction, environmental and consulting solutions firm.

Burns & McDonnell ranks in the upper 5 percent of *Engineering News-Record's* Top 500 Design Firms and is among the leaders in many service categories. With the multidisciplinary expertise of 3,100 professionals in more than 20 offices, Burns & McDonnell plans, designs, permits, constructs and manages facilities worldwide with one mission in mind — to make our clients successful.

Certrec Corporation,

Fort Worth, Texas (Booth 307)

Founded in 1988, CERTREC is a regulatory and compliance solutions provider that helps utilities manage the regulatory process to their advantage. With more than 250 cumulative years of regulatory and industry experience, Certrec's licensing and compliance, performance improvement, and technical services solutions help nuclear professionals better manage the risks of the regulatory and compliance process.

CLYDEUNION Pumps,

Battle Creek, Michigan (Booth 324)

CLYDEUNION Pumps is a market leader in the supply of pumping systems and aftermarket services for the nuclear power market. Our heritage brands include the respected names of Weir Pumps, Union Pump, David Brown and DB Guinard Pumps.

We have eight manufacturing facilities: Glasgow and Penistone, UK; Annecy, France; Battle Creek, North America; Burlington, Canada; Shenyang, China; Ghaziabad, India and Sao Paulo, Brazil. Our three nuclear coded facilities have extensive experience in designing, supplying and project managing pump packages for various reactor types to the highest levels of quality. Our aftermarket business is supported by service centres in over 40 countries resulting in a truly global service across the full life cycle of any project.

Our involvement in the nuclear power market began with the first ever industrial scale nuclear power plant. Since then we have been central to all the major nuclear power programs globally – notably in France, North America, the UK, South Korea, Spain, China and most recently Finland. Our ability to design a reliable solution for the specific needs of the overall nuclear plant allied to our comprehensive service provision means CLYDEUNION Pumps has nuclear pump installations in over 65% of operational nuclear power plants worldwide. We can provide Class I, II and III pumps with most of our Class I pumps having been developed for small to medium reactors.

We have a strong track record in developing solutions for bespoke designs and as examples we have developed and provided equipment for test reactors (including fast breeder), submarine reactors and shore based naval test facilities. We are actively involved in supporting future nuclear programs and believe that our future direction and past heritage map well to the nuclear industry.

Cohesive Information Solutions, Inc., Kennesaw, Georgia (Booth 513)

Cohesive Information Solutions, Inc., an enterprise asset management consulting firm and the nation's top reseller of IBM Maximo to commercial accounts, provides business process transformation and consulting services enabling organizations to achieve higher ROI from their assets and software technology used to manage and maintain those assets. Our goal is to help customers achieve operational excellence and maximize their return on mission-critical technology investments.

Commissioning Agents, Inc., Indianapolis, Indiana (Booth 308)

Premier provider of integrated commissioning/validation services, including factory inspections, construction quality assurance oversight, start-up/commissioning, and IQ/OQ/PQ. Commissioning/validation planning, management, and field execution for major capital projects. Computer software development and validation (PLC, DCS, SCADA, database applications). International regulatory compliance consulting and improvement services.

Construction Systems Associates, Inc. (CSA), Marietta, Georgia (Booth 221)

CSA Laser Scanning Technology – PanoMap®

CSA's PanoMap® is database-driven laser scanning technology representing as-built 3D laser scan models. PanoMap® offers powerful features which allow viewing and measuring, modeling, interference checking (directly against scan data), equipment removal simulation, pre-job briefings, and integration with radiation monitoring equipment. PanoMap® enables planning, scheduling, reviewing, identification, explanation, and resolution for projects. Existing facility databases can be integrated with and accessed through PanoMap®. CSA's Laser Scan Technology is fully integrated to/from all major 3D CAD systems. Typical projects include replacement of FWH, RC pumps, chillers, MSR, transformers, valves, breakers, as well as support of engineering modifications and changes. The PanoMap® walkdown application is available on a tablet/smartphone.

Coreworx, Inc.,

Kitchener, ON, Canada (Booth 206)

Coreworx is a software provider delivering integrated project information and cost control solutions for new construction, power uprate, refurbishment, outage planning, and knowledge capture in the nuclear industry. Central to our solution is the exchange of critical information in a secure and auditable manner to assure regulatory compliance, mitigate risk, improve control and reduce costs. Built to ASME NQ1 standards for management of nuclear information, Coreworx solutions provide decision-ready information in the form of executive dashboards.

Coreworx offers the only commercially available ITAAC solution addressing the complex work processes and regulatory compliance requirements for part 52 plants. Coreworx is proud to be a partner of the EXCEL Services Corporation. Together, EXCEL and Coreworx offer a unique combination of nuclear-configured information management software and the highest quality professional services for the nuclear industry.

CRANE Energy, Nuclear, Kennesaw, Georgia (Booth 403)

CRANE Energy, Nuclear designs and manufactures a variety of valves, valve parts and valve testing equipment for domestic and international nuclear power plants. Our trusted brands (Powerhouse[™], Valvewatch®, Viper[™] and VOTES® Infinity) and reliable services (valve development, valve testing, contract services, actuation, maintenance and repair) combine to provide complete valve solutions that help ensure nuclear plant safety through the reliable performance of safety related motor-operated valves, air-operated valves, and check valves.

Curtiss-Wright Nuclear Group (Enertech, Nova, Scientech, QualTech NP), Brea, California (Booth 414, 416, 418 & 420)

Curtiss-Wright Flow Control Company Nuclear Group (Enertech, Nova, Scientech, QualTech NP) provides ASME Code, safety-related, IEEE, and commercial products and services to nuclear utilities.

Enertech - Engineering, manufacturing, distribution and service company. Valves, actuators, pumps, instrumentation, heat exchangers, fluid sealing products, snubbers/pipe restraints, diagnostic and test equipment; qualification and dedication services, valve, actuator and pump services.

Nova Machine Products - Safety-related, code and commercial fasteners, precision machined components, HydraNut bolting solutions, construction products, reverse engineering, custom fabrication, inventory and supply chain management services.

Scientech - Commercial nuclear power instrumentation, safety-related electrical components, specialty hardware, process control systems, reactor and steam generator equipment and services, expert technical consulting and proprietary database solutions aimed at improving safety, plant performance and reliability and reducing operating costs.

QualTech NP - Airlocks, outage hatches, specialty doors, Motor Control Center (MCC) and electrical components, obsolescence solutions, custom fabrication, equipment qualification, seismic testing and commercial grade dedication services.

Day & Zimmermann,

Philadelphia, Pennsylvania (Booth 233)

Day & Zimmermann ECM has more than 35 years of in-depth experience in nuclear plant maintenance and modifications. An industry leader, Day & Zimmermann partners with more than 70 of the nation's 104 nuclear power plants to deliver total plant lifecycle solutions, from refueling outages and online support to major projects. In addition to our maintenance and modification services, Day & Zimmermann routinely provides specialty services to include valve services, condenser services, turbine services, radiological services and fabrication and machining.

DRS Consolidated Controls, Inc., Danbury, Connecticut (Booth 321)

DRS Consolidated Controls, Inc. (DRS-CCI) has been a premier supplier of Class 1E and non-1E Instrumentation and Control (I&C) systems to the nuclear industry for more than fifty years. DRS-CCI designs, qualifies, and manufactures both safety critical and non-safety I&C systems for commercial nuclear power plants and the U.S. Navy. Our reactor and plant control systems have been installed worldwide in more than thirty commercial nuclear power plants and in every Navy nuclear vessel since the USS Nautilus. Our commitment to long term product support includes installation, training, start-up, field service, spare components and assemblies, and commercial grade dedication programs. DRS-CCI is an ISO-9001 certified facility and has continuously maintained a 10 CFR Part 50 Appendix B Nuclear Quality Assurance program since 1974. Learn more at www.drs-cci.com.

Ecology and Environment, Inc., Lancaster, New York (Booth 106)

Ecology and Environment, Inc., (E & E) is a global environmental consulting firm whose underlying mission is to provide professional services so that global sustainable economic and human development may proceed in harmony with our environment. Founded in 1970, E & E employs over 1,100 professional staff in 85 scientific and engineering disciplines and has offices in 41 cities across the US and in 17 locations around the globe. The Company offers a broad range of consulting services including strategic permitting, engineering, and environmental support for nuclear, fossil fuels, wind, solar, hydroelectric, and geothermal power generation, in addition to pipeline, electric transmission, offshore energy, biomass, and gasification projects. Our scientists and engineers have worked together to provide innovative, turnkey solutions to environmental problems in nearly every ecosystem on the planet.

E & E also has been at the forefront of emergency response, planning, and management for government agencies and private corporations for over 40 years. We have prepared emergency preparedness and response plans, planned and implemented emergency response exercises and workshops, and developed and participated in public outreach efforts on readiness/response for chemical, biological, radiological, nuclear, and explosive (CBRNE) events. E & E staff also provided expert assistance following the Gulf of Mexico Oil Spill, World Trade Center 9/11 terrorist attack, the Washington D.C. anthrax scare, Hurricane Katrina, Three Mile Island, and numerous other emergency events nationwide.

Edgen Murray Corporation, Charlotte, North Carolina (Booth 109)

Committed to the evolving needs of the nuclear industry, we have achieved accreditation as an ASME Material Organization (QSC-614), completed a NIAC member audit and NUPIC checklist audit performed by a major U.S. utility and are compliant with provisions of NQA-1, 10 CFR 50 App B and 10 CFR Part 21. The scope of our safety and non-safety related materials includes pipe, fittings, custom forgings, flanges, plate, shapes, bars, fasteners and valves in ferrous and non ferrous grades. Our global stocking platform offers quick scalability from our Nuclear Operations center in Charlotte, North Carolina.

Enercon Services, Inc., Kennesaw, Georgia (Booth 405 & 407)

ENERCON is a diversified energy consulting company offering engineering, licensing, environmental and management services. ENERCON is an employee owned company of over 1200 people located in seventeen offices nationwide with clients including most of the country's nuclear power plants, the Department of Energy and many Fortune 500 companies. ENERCON provides comprehensive design, engineering, procurement and construction management related to nuclear plant retrofits, plant life extension, power uprates, operations support, efficiency management and full life-cycle maintenance services. ENERCON is currently focused on developing new nuclear plant applications and operating nuclear plant solutions for industry challenges such as PWR and BWR sump strainer clogging, buried piping, 316b compliance, extended power uprate, spent fuel storage and transport, cyber security and instrumentation and control upgrades. For more information about us visit our website at www.enercon.com.

EnergySolutions, Inc.,

Oak Ridge, Tennessee (Booth 201)

Energy*Solutions* is an international nuclear services company with operations across the United States, Canada, the United Kingdom and other countries around the world. With over 5,000 world-class professionals, Energy*Solutions* is a global leader in the safe recycling, processing and disposal of nuclear material. We provide integrated services and solutions to the nuclear industry, the United States Government, the Government of the United Kingdom, along with various medical and research facilities. Energy*Solutions* offers a full range of services for the decommissioning and remediation of nuclear sites and facilities, management of spent nuclear fuel, the transportation of nuclear material and the environmental cleanup of nuclear legacy sites. We're committed to reasserting America's leadership in the global nuclear industry and helping the United States, the United Kingdom countries achieve energy security in a way that reduces carbon emissions and protects the environment.

Engineering Planning and Management, Inc. (EPM), Framingham, Massachusetts (Booth 431 & 432)

Engineering Planning and Management, Inc. (EPM) provides engineering, software, and probabilistic risk assessment (PRA) consulting services to industries in North America and overseas. For over 25 years EPM has been working with utilities to achieve compliance with complex regulatory requirements. EPM continues to provide expert fire protection and systems engineering guidance as NRC regulations change and evolve, particularly in the new performance-based, risk-informed regulatory environment of 10CFR50.48(c) and NFPA 805. EPM is an industry leader in Post-Fire Safe Shutdown, Fire Modeling, PRA, and Thermal-Hydraulic Systems Analysis.

EPM is also the leading provider of innovative software that optimizes engineering and business processes to achieve regulatory compliance cost-effectively with emphasis on long-term configuration management. EPM's Genesis Solution Suite®, which is Appendix B compliant, includes EDISON (Cable Management System) and SAFE (Post-Fire Safe Shutdown Analysis). EDISON is the only current cable management system developed specifically for new plant designs and construction projects. SAFE automates the engineering programs for 10CFR50 Appendix R, NFPA 805, FPRA, and NPO. As a single repository of information, SAFE simplifies long-term configuration management and control of these programs. EPM's team of engineering, PRA, and information technology personnel have developed innovative methods to achieve practical, comprehensive, and cost-effective solutions using a combination of creative strategies, time-tested engineering methods, and an experienced staff.

ERIN Engineering and Research, Inc., Walnut Creek, California (Booth 111)

ERIN Engineering and Research, Inc., an SKF Group Company, is the premier nuclear safety and reliability consulting firm in the world and the leading provider of PRA consulting services to the nuclear power industry. ERIN's services and software have long supported the safety, reliability and cost-effectiveness of nuclear power.

EXCEL Services Corporation,

Rockville, Maryland (Booth 301, 303 & 305)

EXCEL Services Corporation specializes in providing operations, Engineering, safety and regulatory services for energy and environmental projects world-wide. These specialized services include: License Renewal, Power Uprate, 24 Month Fuel Cycle Conversions, Licensing and Operations Support, Improved Technical Specifications Conversions, Quality Assurance Solutions, Training, Spent Fuel Storage Licensing, New Plant Site Permitting (ESP), and Combined License (COL) Support. EXCEL has worked with almost every nuclear power plant and many other nuclear facilities in the U.S., and has worked with many international nuclear facilities and organizations for nearly 25 years.

Exelon Nuclear Partners, LLC,

Kennett Square, Pennsylvania (Booth 115 & 117)

Exelon Nuclear Partners, LLC, a business development unit of Exelon Generation Company, LLC, can deliver a variety of services to clients interested in new nuclear development or improving existing nuclear program performance. Exelon Generation maintains high levels of performance and safety across its nuclear fleet, which is the United States' (U.S.) largest with 10 stations and 17 reactors, and nearly 17,000 megawatts of generating capacity with a 10-year average capacity factor of 94%. Exelon Generation holds nearly 20% of the U.S. nuclear generation capacity and comprises the third largest commercial nuclear fleet in the world.

Exelon Nuclear Partners was created to share Exelon's industry-leading experience so that others can achieve similar levels of performance in nuclear power generation. *Exelon Nuclear Partners* offers an array of services for those who are developing new nuclear power capabilities. Our services leverage Exelon's operational expertise and apply the owner-operator's perspective to all decisions. Our approach prioritizes operational efficiencies, so plants cost less to develop and earn maximum revenue upon completion.

Exelon Nuclear Partners existing operator services include: complete nuclear operating services using the *Exelon Nuclear Management Model*; outage duration optimization; equipment reliability improvements; fuel procurement; training program support; operating license renewal; Information Technology (IT) support and consulting services, and other performance improvement services.

Exelon Nuclear Partners new plant development services include: site selection; technology selection; contracting and commercial support; licensing and permitting; infrastructure planning and optimization; business requirements finalization; construction oversight; organization design; workforce training; turnover planning, startup, and transition to operations; operations support and plant operation.

The Exelon Nuclear Management Model promotes knowledge transfer to accelerate performance improvements and supports the use of an aggressive implementation schedule to allow owner/operators to manage their operations independently. The benefits of working with *Exelon Nuclear Partners* include: safer and more reliable nuclear power generation; consistently high capacity factors; maximum return on investment; recurring cost savings; and increased revenues.

Please contact Mr. Kevin Carrabine, Executive Director of Business Development, at Kevin.Carrabine@exeloncorp.com, or via telephone at (610) 765-5096 (USA) for additional information. Additional information can also be found at: www.exelonnuclearpartners.com.

Exponent, Inc.,

Menlo Park, California (Booth 515)

Exponent offers unparalleled multi-disciplinary expertise and rapid response capabilities to assist clients assess complex engineering and scientific problems. We provide our clients with a team of engineering, construction, environmental, risk, and health specialists that is unique in the industry. We offer proven experience on projects of national and international significance.

Flowserve Corporation,

Vernon, California (Booth 516 & 518)

Flowserve Corporation Flow Solution Group (FSG) is a leading force in Nuclear Power Pump and Seal technology. Heritage names include Byron Jackson, Pacific, Worthington, Durametallic, BW Seals and other names of distinction. FSG provides solution driven equipment and programs which include Pump Upgrades, Pump Repairs, On-Site Technical and Turnkey Services, Replacement Pumps, Mechanical Seals, Engineering Support and much more. Our worldwide footprint allows us to support both the operating plants and well as being positioned for the Nuclear Renaissance.

G.D. Barri & Associates,

Peoria, Arizona (Booth 120)

G.D. Barri & Associates (Barri) is celebrating over 20 years in business. We have worked with 51 nuclear plant units, 16 DOE nuclear sites, and 62 oil, gas, wind and solar plants, where we provided over 8MM hours of contract technical, engineering and union craft labor. Our projects included all types of engineering services, outage support, EPU, SGR, training, procedure development, digital asset engineering, and most recently cyber security staff support. Our management and national recruiting team has extensive nuclear knowledge that translates into value added, fresh processes and ideas to achieve client goals. The benefit of our experience is sure to be evidenced in your upcoming new programs. Our successful past makes us the best choice for a staffing partner when looking to the future. Please call either Georgia Barri or Rick Duff at 623 773 0410 to learn more regarding our programs and services.

GE Hitachi Nuclear Energy,

Wilmington, North Carolina (Booth 523)

Based in Wilmington, N.C., GEH is a world-leading provider of advanced reactors and nuclear services. Established in June 2007, GEH is a global nuclear alliance created by GE and Hitachi to serve the global nuclear industry. The nuclear alliance executes a single, strategic vision to create a broader portfolio of solutions, expanding its capabilities for new reactor and service opportunities. The alliance offers customers around the world the technological leadership required to effectively enhance reactor performance, power output and safety.

Graybar,

St. Louis, Missouri (Booth 219)

Graybar Electric Company, Inc., a Fortune 500 corporation with more than 240 North American distribution facilities, is a leader in the distribution of high quality electrical, networking, and security products, and specializes in related supply chain management and logistics services. As an Energy Star Partner and a member of the U.S. Green Building Council, Graybar is committed to delivering energy-savings products and "green" knowhow to its customers. From lighting to sensors and metering to controls and drives, Graybar can provide products, systems, and advice that deliver measurable savings of time and money.

GUTOR Electronic LLC,

Wettingen, Switzerland (Booth 506)

GUTOR Electronic LLC, a subsidiary of Schneider Electric, provides highly reliable battery chargers, inverters and double conversion UPS systems for Class 1E & non-1E applications at nuclear power plants. When current contracts are completed, GUTOR will have supplied systems for 100+ commercial reactors, including 29 new build reactors since 2008.

Howden North America Inc.,

New Philadelphia, Ohio (Booth 105)

Howden North America Inc. (HNA)(fka Howden Buffalo Inc.) is the leading supplier of safety and non-safety related fans and blowers for the nuclear industry, as well as equipment and services for other applications. HNA maintains formal quality systems that conform to 10 CFR 50 Appendix B, ASME NQA-1, ASME AG-1, and ISO 9001-2008. Our products are also environmentally and seismically qualified for both mild and harsh environment applications.

In addition, if replacement motors are required for either of these fan designs, Howden North America Inc. can supply safety or non-safety related motors either refurbished to original specifications or as replacements with Reliance/Baldor Electric motors.

Howden North America, Reliance/Baldor Electric and Westinghouse Electric have also formed an alliance to support the repair or rebuild of contaminated nuclear fan/motors.

Howden 360 is our commitment guarantee to provide superior customer service throughout the life cycle of your equipment, plant and career. With capabilities to engineer or provide products and aftermarket services in virtually every situation, Howden 360 continues to provide customers with innovative solutions that no other company can offer.

Howden North America Inc. is the official provider of service and supply for thousands of nuclear fans, fluid drives, compressors, and other products in service throughout the world from equipment originally manufactured by Buffalo Forge, Joy Fans, Westinghouse, American Standard, Howden, and Novenco.

Hukari Technical Services,

Wheat Ridge, Colorado (Booth 328)

Hukari Technical Services is a solely-owned, small business (Vietnam Veteran-Owned) with the goal of providing only the highest quality engineering and technical services to the nuclear industry. While specializing in Nuclear Safety and Licensing services, our support capabilities cover the complete nuclear power life cycle (new reactors, operating plants, and decommissioning) and our people are equipped with the broad and deep experience to address the most difficult of challenges.

IBM Corporation, Armonk, New York (Booth 226)

At IBM, we strive to lead in innovation with the most advanced information technologies. We translate these technologies into value for customers through our solutions and worldwide consulting businesses. IBM is focused on nuclear power and using IBM Maximo Asset Management to implement SNPM best practices while meeting nuclear specific requirements.

Idaho National Laboratory,

Idaho Falls, Idaho (Booth 503)

Idaho National Laboratory is the U.S. Department of Energy's leading center of nuclear energy research and development where more than 4,100 researchers and support staff work with national and international governments, universities and industry partners to deliver energy and national security solutions and expand the frontiers of science and technology.

Industrial Testing Laboratory Services, LLC, Pittsburgh, Pennsylvania (Booth 531)

ITLS is headquartered in Pittsburgh, PA and offers over 52 years of expert nuclear industry experience.

ITLS services meet NCA 3800, NQA-1, 10CFR50 Appendix B and ISO-17025. Areas of specialty include Non Destructive Examination, Mechanical Testing, Metallurgical Testing, Chemical Analysis, Failure Analysis, Training, Auditing and QA/QC Outage services.

Invensys Operations Management, Plano, Texas (Booth 126 & 128)

Invensys Operations Management is an alliance of Invensys brands including Avantis, Foxboro, Wonderware, Skelta, Eurotherm, IMServ, InFusion, SimSci-Esscor and Triconex, all with a strong nuclear presence.

Leveraging the power of one organization, Invensys consistently collaborates in development, integrated design, and execution of Safety and Non-safety related solutions proven to maximize the availability and utilization of nuclear plant assets. Invensys will be displaying ground breaking Team Training technology, the updated SER for the TRICON V10, Cyber Security solutions, and the latest advancements in Turbine Control, Feedwater Digital Upgrades. Invensys continues to raise the bar with evolving products and unmatched reliability in the nuclear industry.

Joseph Oat Corporation, Camden, New Jersey (Booth 207)

Joseph Oat is a well renowned integrated OEM designer and fabricator of ASME Section VIII & Section III / safety-related products for the Nuclear Power Industry. We have supplied critical heat exchangers and pressure vessels, spent fuel/rad-waste canisters, and NQA-1 components to nuclear customers worldwide. Our QA system has been audited by NUPIC and complies with NQA-1 & 10 CFR 50 Appendix B. We have continuously held an 'N' Stamp certification since 1966 and maintain an excellent reputation in the industry. We Make Metal Work ©.

Kiewit,

Lenexa, Kansas (Booth 423)

Kiewit Power offers exceptional service to the nuclear industry. Our full scope of services spans the entire project foot print – from intake structure to the substation – to detailed scope and cost estimates, through the full EPC phase of a project and includes plant modifications, staff augmentation and new construction.

Kinectrics, Inc.,

Toronto, Ontario, Canada (Booth 402 & 404)

Kinectrics is an established supplier of advanced engineering and testing services, and products for the nuclear industry worldwide. We provide reliable, qualified expertise in equipment and components, genuine nuclear replacement parts, inspection tooling and maintenance systems, as well as related nuclear chemistry and environmental technologies.

Kinectrics also now operates a facility in Cincinnati, Ohio. This new Kinectrics US installation further expands our specific technical support capabilities in Equipment Qualification, Commercial Grade Dedication for both nuclear new build and the existing operating fleet in North America.

Kipper Tool Company, Gainesville, Georgia (Booth 125)

Kipper Tool is a Woman-Owned Small Business based in Gainesville, Georgia providing over 250,000 items from 450 manufacturers including: high-quality industrial tools; fall protection and safety equipment; and custom tool kits and systems.

Kipper Tool is currently expanding to serve aerospace, oil and gas, energy, rail, construction and mining industries and is experienced in working with the end user to optimize tool loads to help customers perform various maintenance and installation tasks.

KnightHawk Engineering,

Houston, Texas (Booth 322)

Specialists in Design, Failure Analysis and Troubleshooting of Static and Rotating Equipment, we are a Technology based Specialty-Engineering company offering Consulting, Field Services, Analysis and Testing. We have Nuclear Qualified, Registered Professional Engineering Staff. We utilize our integrated systems approach to troubleshoot complex process equipment or to design specialty equipment. We have extensive experience in troubleshooting and solving problems in Nuclear power facilities.

Our Materials and Metrology Lab provides materials analysis, testing and reverse engineering. Our SEM is state of the art with integrated EDS. Our laser scanner is portable for use in our facility or yours.

KSB, Inc.,

Richmond, Virginia (Booth 505, 507)

KSB is a Global Supplier of Engineered Critical Service Pumps for the Power Industry: Boiler Feed, Condensate, Coolant Water, Charging, Reactor Coolant and other safety and non-safety related pumps. With 130 years centrifugal pump experience and 29 factories in 19 countries, KSB can fulfill your pump technology needs around the globe.

L-3 Communications MAPPS Inc.,

Montreal, Quebec, Canada (Booth 524, 526)

When you are looking for increased reliability in your power plants performance, you can count on L3 MAPPS' simulation experience to get you there. Our dedication to true-to-life power plant simulators powered by L-3 MAPPS' unparalleled Orchid® suite of simulation products — ensures that your personnel have the knowledge required to safely and efficiently operate your power plant.

Laron, Inc.,

Kingman, Arizona (Booth 113)

"Solutions that Keep Industry in Motion"

A full service, 24/7 leader in machining, fabrication, millwright services, electrical equipment repair and manufacturing, new equipment sales & predictive maintenance. With 30 years supporting the mining, manufacturing, power generation and construction industries by creating a partnership of trust & confidence.

Lockheed Martin,

Archbald, Pennsylvania (Booth 104)

Lockheed Martin Nuclear Systems & Solutions provides total systems solutions and services for civil nuclear power applications. Lockheed Martin is a systems integrator and provider of discrete and digital safety-critical instrumentation and control (I&C) systems for civil and DoD customers for over 50 years. Lockheed Martin is also a leader in Homeland Security, Information Technology, Net-Centric Solutions, Technology Research, Training and Simulation, and Engineering Services. Products and services include Human Factors Engineering (HFE); Safety Critical Digital I&C; Independent Verification & Validation (V&V); Hardware-in-the-Loop (HWIL) Testing; Automated Test Equipment (ATE) Design; System Level Environmental Testing; and Tool Design and Fabrication.

Major Tool & Machine, Inc., Indianapolis, Indiana (Booth 401)

Major Tool and Machine provides the nuclear marketplace with best value, turnkey, engineering, fabrication and machining services. Our extraordinary capability, capacity and experience are driven by our commitment to quality assurance. This is evidenced through our ASME N, NPT, N3, NS, U and U2 certifications.

In addition, our Nuclear Quality Assurance Program is audited to the requirements of NQA-1, and complies with 10CFR21, 10CFR50 part B, 10CFR71 subpart H, 10CFR72 subpart G, and 10CFR830. Our combined strengths of outstanding program management, unparalleled capability, and uncompromising quality assurance provide our customers the Major difference.

Merrick & Company, Aurora, Colorado (Booth 517)

Merrick & Company provides design and design-build services for nuclear facilities, systems, and equipment for specialized processing, handling, treatment, production, manufacturing, power production and research. Merrick offers multi-discipline services for designing or designing and building facilities and systems for commercial nuclear power stations, including specialized shielding systems and Balance of Plant.

Mesa Associates, Inc.,

Knoxville, Tennessee (Booth 522)

Mesa is a full service engineering, procurement and construction management (EPC) firm experienced in Nuclear Power generation projects. Mesa specializes in fast track projects that require a Design-Build focus. Our approved/proven Appendix B Quality Assurance and Equipment Qualification/Dedication programs are instrumental to our project delivery success. In addition, Mesa brings a disciplined Project Management approach to each of our projects, e.g., WBS, project schedule, cost controls, and scheduled project reviews.

One of our focus areas is plant modifications. Mesa's staff is highly qualified and experienced in developing the Engineering/Design modification documentation, 10 CFR 50.59 evaluations, review and update of the FSAR, and other regulatory documentation, plus understanding what plant documentation needs to be updated. In addition, Mesa is experienced working with the local and state regulators to acquire the required permits.

Mesa's core competencies include: I&C (analog to digital upgrades), component change replacement, e.g., Chillers, diesel generators, feed water heaters, DCS upgrades, switchyards, transformers, T&D, and spent fuel storage systems, just to note a few. Mesa understands how to evaluate the existing system/component to provide an economical seamless plant modification. Over 85% of our projects are from return customers, we must be doing something right.

Mitsubishi Heavy Industries, Ltd., Tokyo, Japan (Booth 323 & 325)

Mitsubishi Heavy industries, Ltd. (MHI) has been engaged in the nuclear energy business for over 4 decades and has built 24 pressurized water reactor (PWR) electrical plants in Japan. In addition, 2 plants are in the licensing phase. MHI is now introducing its US-APWR to the U.S. market, which is the largest nuclear energy plant in the world.

MHI established Mitsubishi Nuclear Energy Systems, Inc. (MNES) as a wholly owned U.S. subsidiary in 2006, based in Arlington, Virginia. Mitsubishi is a fully-integrated nuclear power plant supplier, capable of providing engineering, design, manufacturing, construction, ongoing maintenance and nuclear fuel to its utility customers.

Northrop Grumman Power/Control Systems, Sykesville, Maryland (Booth 102)

Northrop Grumman provides innovative I&C solutions for both commercial and U.S. Navy customers. We focus on safety and critical applications involving Nuclear Reactor Control, Electronic Power Conversion and Machinery Control Systems. Our heritage in design, manufacture and support of nuclear I&C systems dates back to the birth of the industry. You can rely on our engineering and production capabilities to develop affordable solutions for your specific requirements.

Nuclear Logistics, Inc.,

Fort Worth, Texas (Booth 209, 211 & 213)

Nuclear Logistics, Inc. (NLI) is the nuclear industry's single source for safety-related equipment, equipment maintenance and qualification support. We specialize in the design, fabrication, qualification, test and supply of all equipment types needed in the nuclear industry. Expanded service areas include the supply of ASME Section III N, NPT, and NS certified equipment.

Nuclear News,

La Grange Park, Illinois (Booth 512)

Nuclear News has been an integral part of the advertising and marketing plans of more than 1000 companies who provide products and services to the nuclear field. Monthly news reports cover worldwide commercial nuclear power plant operations, maintenance, security, waste management, fuel, industry, and more. Published since 1959, *Nuclear News* magazine is the flagship publication of the American Nuclear Society and reaches a professional membership of nearly 11,500 readers every month.

Nuclear Plant Journal, Downers Grove, Illinois (Booth 508)

Nuclear Plant Journal, now in its 28th year, provides technical information exchange among managers and engineers in nuclear power industry worldwide. Circulation is 12,000 (BPA audited). The Journal is published six-times per year. The Products & Services Directory is published yearly in December.

Nuclear Safety Associates,

Johnson City, Tennessee (Booth 327)

Nuclear Safety Associates (NSA) is a privately held company with more than 100 employees throughout North America. NSA offers engineering excellence and client customization along four major business sectors:

- Nuclear Safety and Licensing
- Readiness Assurance and Operations Management
- Safeguards & Security
- Specialized Design Engineering

The NSA staff has extensive experience in reactor physics, reactor core reload safety, spent fuel pool criticality analyses, radiation transport, shielding, licensing, thermal-hydraulics, and PRA. Staff members have also performed extended power up-rate reviews that included identifying implementation requirements, margin assessments, conformity to task scoping and design input documents, and consistency with EPU topical/ plant specific reports and licensing documentation for the EPU SAR.

NWI Consulting, LLC,

Knoxville, Tennessee (Booth 412)

NWI Consulting, LLC is a professional consulting firm specializing in power generation performance improvement services, specialized learning interventions, computer-based training, organizational development, accreditation renewal/recovery, and professional staff augmentation. NWI has a broad portfolio of U.S. and international clients in the electric generation industry and is headquartered in Knoxville, TN.

NWI's power plant services includes supporting such areas as Operations, Training, Outage Management, Nuclear Oversight, Maintenance, Radiation Protection, Chemistry and Emergency Preparedness. NWI has assisted clients in other more specialized efforts including Leadership/Management Development, Executive Coaching, Conflict Resolution, Multi-Discipline Assessments, Root Cause Analyses, NRC 95-002 & 3 Preparations and specialized Safety Analyses (50.59).

Performance Contracting, Inc., Lenexa, Kansas (Booth 107)

Performance Contracting Inc (PCI) has been an expert in the Nuclear Industry for more than 40 years. We are the largest insulation contractor in the U.S.

With our national resources and local expertise, PCI is capable of combining our superior range of services for all your nuclear needs. We offer:

- Compliance Testing Support for the GSI-191 issue with the only NRC accepted large flume test protocol that allows debris to settle. AND NOW WE ARE OFFERING A DEBRIS TRAP THAT IS A PRE-SCREEN TO YOUR EXISTING SUMP STRAINERS TO REDUCE DEBRIS BYPASS THAT AFFECTS DOWN STREAM EFFECTS.
- KAEFER PCI Reflective Metal Insulation (RMI) Now the best Reflective Metal Insulation in the world is made in the USA!
- Removable containment insulation with Radiation Shielding capabilities without LEAD
- Sure-Flow® Strainers
- Sure-Hold® Bands
- "Safety-Related" Insulation Materials
- NUKON® Containment Insulation
- PCI Promatec® Passive Fire Protection
- Union labor services, scaffolding, rigging, abatement and more

Quality and safety are PCI's core values.

Precision Surveillance Corporation,

East Chicago, Indiana (Booth 131)

Precision Surveillance Corporation is a Utility Services and Engineering company that has been in business since 1986. Since our company's inception we have worked in the Nuclear Power Industry providing Construction-related, Engineering, Quality Control and Quality Assurance services to numerous Utilities throughout North America. In the past two years we have been expanding our services to additional industry sectors beyond the post tensioning tendon surveillance realm.

As a supplier of construction-related, engineering and QA/QC services, our capabilities extend to capital projects, repairs and upgrades, operations and maintenance support, and plant outages and services. Our quality assurance program complies with the requirements of 10CFR50 Appendix B, 10CRF21, and ANSI N45.2.

We have significant nuclear power industry experience, gained through years of assisting companies in the industry. Our client base includes over twenty utilities including but not limited to Entergy, Exelon and Florida Power & Light. We believe our portfolio of successful projects is the result of our commitment to providing quality service to our clients. Also, the unique relationships we have with our clients reflect the core values of our organization. Approximately 90% of our client base today is made up of repeat clients who have been consistently pleased with our services. The major reason we are able to enjoy this exceptional customer satisfaction rating is because we treat their goals and needs as our first priority.

PricewaterhouseCoopers,

New York, New York (Booth 223)

PwC's utilities and power generation nuclear practice provides industryfocused assurance, tax and advisory services to enhance value for clients and their stakeholders. Our utilities and power generation professionals provide clients with the confidence to succeed and the tools to best manage their operations by providing industry experience and functional acumen across operations, organizational strategy and structure, enterprise asset management, process improvement, human capital optimization, technology integration and implementation, risk mitigation, and crisis management.

Pullman Energy Services,

Hanover, Maryland (Booth 208)

STRUCTURAL has created a unique value-driven team specifically to address key industry initiatives -

- License Extensions
- Aging of Plant Structures
- Buried Pipe Integrity
- Corrosion Control
- Primary & Auxiliary Cooling
- New Plant Construction

Our team ensures that all work is conducted in accordance with the requirements of 10 CFR 50 Appendix B, ANSI, NQA, OSHA, NIOSH, and corporate policies and procedures.

Radwaste Solutions,

La Grange Park, Illinois (Booth 510)

Radwaste Solutions is a specialty magazine that covers the business of radioactive waste management and site cleanup and remediation. Published five times yearly, the magazine highlights both national and international D&D and waste management programs. If you are a professional or company performing work within this important segment of the nuclear industry, we invite you to advertise and/or subscribe (ANS members receive a significantly reduced subscription rate).

Radiy Research & Production Corporation, Kirovograd, Ukraine (Booth 110)

Established in 1954, Radiy designs, develops, manufactures and installs digital instrumentation and control (I&C) systems for safety and process control of nuclear facilities and industries with high level of safety requirements.

RCS Nuclear,

Aiken, South Carolina (Booth 332)

Staffing the Nuclear Renaissance

RCS Nuclear is a full solutions staffing provider specializing in Direct Hire, Contract Staffing and Payroll Services. Ranked the #1 Fastest Growing New Small Business in America by Entrepreneur magazine, RCS Nuclear recruits engineers and technical professionals for the Nuclear Industry worldwide.

Established in 1994, RCS is a certified diversity supplier for the California Public Utilities. We specialize in the fulfillment of key positions in the areas of Engineering, Fire Protection, Project Controls, Project Management, Design, Safety, Information Technology, and Procurement.

Through our extensive network of professionals, RCS is strategically aligned with top talent that can deliver results. For Employers partnering with RCS Nuclear for your urgent and critical hiring needs, you gain the peace of mind that RCS will apply our proven recruitment process to fulfill your staffing needs and help you achieve your business goals. For Job Seekers we offer direct hire positions and contract assignments with "Best of Class" companies.

Visit our new website www.rcsnuclear.com and see our ads in *Nuclear News*!

RCS Nuclear is a trade name for RCS Corporation.

ReNuke Services, Inc.,

Oak Ridge, Tennessee (Booth 421)

ReNuke was designed and built specifically to bring innovative human capital consulting and staffing programs to the resurgent commercial nuclear power market. The name itself is emblematic of our commitment to nuclear energy. In a period where personnel needs are growing and the workforce is shrinking, a fresh approach to staffing nuclear positions is being demanded by both candidates and customers - and ReNuke is responding.

The company provides four basic services: Defined-scope project execution, traditional staff augmentation, fee-based permanent placement, and strategic human capital consulting. ReNuke's service offerings are supported by a full-time leadership staff with over 300 years of collective nuclear industry experience. We are technically qualified in project management, project controls, contract administration, engineering, operations, outage management, procurement, health physics, decommissioning, transportation, and quality assurance.

Rolls-Royce,

Huntsville, Alabama (Booth 227)

Rolls-Royce offers a broad range of civil nuclear expertise, including work related to licensing and safety reviews, engineering design, supply chain management, manufacturing, installation and commissioning of nuclear island systems and equipment, as well as operational management and through life support. The company's involvement in the nuclear industry spans over half a century in the design and supply of equipment for both civil and military reactors.

We also provide technical services in the UK and US civil nuclear markets, as well as safety critical instrumentation and control systems in Europe, the US and many other international markets, including all 58 operating nuclear facilities in France.

S&ME, Inc.,

Raleigh, North Carolina (Booth 108)

S&ME provides award-winning engineering and environmental services to the nuclear power industry. Since 1973, we have partnered with owners, operators and their consultants assisting them with permitting, construction and refurbishing nuclear power plants, fuel facilities and other nuclear energy related programs. As an employee-owned firm operating from 25 offices throughout the Southeast, our goal is to provide the engineering and scientific services our clients require to achieve success.

SCHOTT Electronic Packaging,

Southbridge, Massachusetts (Booth 528)

SCHOTT Electronic Packaging produces Electrical Penetration Assemblies (EPA) and large-scale feedthroughs for nuclear power plants, submarines, LNG vessels and pressure tanks. SCHOTT is a leading manufacturer of safe, high-quality hermetic glass-to-metal and ceramic-to-metal sealed components for reliable, long-term protection of sensitive electronics under the harshest conditions.

Stainless Structurals, LLC, Jacksonville, Florida (Booth 228)

Stainless Structurals has replicated all the popular carbon steel structural shapes in stainless steel. The company carries inventory in 304/L and 316/L, in beams, channels, unequal angles and tees. Custom shapes are also available. Material is produced by conventional hot rolling or laser fusion, a new technology. Laser fused structurals are certified not only to ASTM-A-276, but also to ASTM-A-1069, a brand new specification for laser fused structurals. Stainless Structurals has a new facility under construction in Texas, to produce the material in the United States. Completion is scheduled for 2Q2012.

Sulzer Pumps,

Portland, Oregon (Booth 424)

Sulzer Pumps is widely recognized for technical excellence in nearly all nuclear plant applications, providing primary and secondary pumping and sealing solutions, including our Balanced Stator seal for both PWR and BWR main coolant pumps.

Nuclear service installations exceed over 80 sites in the US and 100 worldwide. We provide pump repair, replacement parts, and testing services for all OEM pumps compliant with ASME, PTC, HI and ISO.

Systemware Innovation Corporation, Bellevue, Washington (Booth 132)

Since 1980, Systemware Innovation (SWI) has provided our nuclear industry customers with high quality software products, turnkey solutions, and consulting services. Our CASSITM Work Management Reporting product is a state of the art solution for on-line work management.

We are recognized as software quality experts, developing solutions for reactor monitoring, control and shutdown, reactor inspection and repair, training simulators, work protection management, and work management reporting. For operators considering migration to digital control system technology we can bring our DCS expertise to bear. We are proud of our record of always delivering for our customers and making a positive and meaningful impact on their businesses.

System One,

Pittsburgh, Pennsylvania (Booth 122)

System One is the leader for nuclear outsourcing and careers. Over 30 years, we've built our reputation by delivering a full suite of staff augmentation, managed staffing and quality solutions to power producers, service providers and OEMs. From licensing and construction to operations and maintenance, we support the production lifecycle.

Thermo Scientific,

San Diego, California (Booth 504)

We are a leading provider of Class 1E Safety-Related Instrumentation and Control Systems. Our Thermo Scientific neutron flux monitoring system uses a single fission chamber-based detector assembly for source, intermediate and power ranges. It operates without depreciable loss of sensitivity over a qualified life of 40 years.

Transco Products Inc.,

Chicago, Illinois (Booth 511)

Building on more than 50 years of nuclear experience, Transco provides nuclear plants with turnkey solutions and custom-tailored products including thermal insulation, ECCS sump strainers and passive fire protection. With products and services in use at over 150 nuclear power plants worldwide, Transco is at the forefront of safety and innovation.

TW Metals,

Leetsdale, Pennsylvania (Booth 204)

TW Metals – Nuclear Materials Solutions is the ASME Certified source for all classes, forms and grades of fabrication material – plate, bar, forgings, tubing, fittings, consumables and fasteners including Special Chemistry Products. Serving the domestic and international commercial markets, utility, research, DOE and DOD. QA programs in accordance with; 10CFR21,10CFR50 b, 10CFR71 h, 10CFR72 g, NQA-1, NCA 3800 and ASME Sect. III.

UniTech Services Group,

Springfield, Massachusetts (Booth 425)

UniTech Services Group is the world's largest supplier of radioactive laundry services and total protective clothing programs. UniTech has been providing service to the nuclear industry for over 45 years. Our network of licensed facilities nationwide gives UniTech the capability of supplying service coast to coast. UniTech provides the following services to utilities, government, and other radioactive material licensees:

- 1. Laundering and decontamination of radiological protective clothing and accessories including respirators.
- 2. Tool and metal decontamination, including scaffolding, tool, and outage support materials.
- 3. Radiological and safety supplies including our Mobile Safety Store with onsite just in time inventory.

URS Corporation,

Princeton, New Jersey (Booth 501)

URS provides integrated engineering, procurement, construction, and maintenance services to the commercial nuclear industry and similar services in support of managing/operating government nuclear facilities. The Steam Generating Team (SGT), our joint venture with AREVA, is a leading supplier of engineering and construction support services for large nuclear component replacements.

Valv Technologies,

Houston, Texas (Booth 215)

ValvTechnologies, best known for our four year, zero leakage guarantee, has been solving power application issues for over 20 years, by offering better built, cobalt free, metal seated isolation & control valves. We pride ourselves on our client – partner relationships and have made it our mission to offer best in class service and support. ASME N and NPT Authorized with a 10CFR50 Appendix B program for safety related equipment – we are committed to offering the very best valve solutions to the nuclear industry.

Ventyx,

Atlanta, Georgia (Booth 509)

Ventyx, an ABB company, is a leading business solutions provider to global energy, utility, communications, and other asset-intensive organizations. Our innovative software, data, and services and deep industry-specific domain expertise help clients solve complex technical challenges to manage critical infrastructure, meet growing energy demands, and provide a smarter grid.

Waterfall Security Solutions Ltd., Rosh Ha'ayin, Israel (Booth 519)

Waterfall® Security Solutions Ltd. is the leading provider of Unidirectional Security Gateways and data diodes for Process Control Systems, SCADA systems, Remote Monitoring and Segregated Networks, enabling secure and real-time data transfer, from critical (e.g.: SCADA, production, industrial, etc...) networks to external/business networks.

Waterfall's products have been deployed in many critical national infrastructures, homeland security agencies and mission critical environments in USA, Canada, Europe, ASIA and Israel. Waterfall's customer base includes Power Generation plants, Oil&Gas companies, T&D's, refineries, and other utilities and industrial facilities.

WeldTech Services,

Lawrenceville, Georgia (Booth 521)

The Gold Standard

WeldTech Services Corp. is the new nuclear industry leader in specialty mechanical projects and maintenance. Founded in 2005 with the primary focus on serving the customer, WeldTech is the customeroriented alternative to the traditional specialty mechanical contractors.

WeldTech is led by career nuclear professionals and supported by a network of highly-skilled, nuclear craft and supervision to perform critical projects safely, with the highest quality, on time and budget, ultimately reducing outage/project risk for the nuclear industry.

Western Services Corporation,

Frederick, Maryland (Booth 114)

WSC, headquartered in Frederick, Maryland, is a global simulation and services company. It was founded in 1995, and has been growing steadily based on the quality and efficiency of its products, and its flexible team-oriented approach for serving its customers.

WSC's primary focus is the development and deployment of advanced 3KEYSOFTWARE® Simulation Technology, which consists of the 3KEYMASTER[™] simulation platform and a suite of unified graphical modeling tools which include 3KEYRELAP5-RTTM which is an adaptation of Idaho National Laboratory (INL) thermal-hydraulics and neutronic models running within the 3KEYMASTER Environment. Even though operator training simulators, both new simulators and the modernization or refurbishment of existing simulators for all type of power and process plants are WSC's main focus, WSC has achieved significant growth in Simulation Assisted Engineering (SAE), based on the strength of its "engineering-grade" simulation technology. Leading companies have been the external driver for SAE, and are embedding WSC's technology in their engineering processes to address the challenges of improving quality up-front, and reducing complex engineering development and commissioning cycles. To support the increasing deployment of e-learning WSC has developed 3KEYSTUDENT[™] which makes state-of-the-art simulator training available to a student's PC anywhere in the world via the Internet.

WSC is committed to continually improving the capabilities of its technology and widening the applicability of its simulation technology to complex systems. To further this goal, WSC has a vigorous market-focused R&D program and a strong commitment to customer service. WSC is ready to serve you globally for your complete simulation needs.

Westinghouse Electric Company, Cranberry Township, Pennsylvania (Booth 304 & 306)

Westinghouse Electric Company is the only company with a single focus on nuclear power, providing a wide range of nuclear plant products and services to utilities throughout the world. Our more than 14,000 employees worldwide provide fuel, spent fuel management, service and maintenance, instrumentation and control, and advanced nuclear plant designs. With the world's largest base of installed plants, no company has more nuclear experience. With the combined resources of Westinghouse and Toshiba, an even broader range of products and services will be available to our customers, furthering our commitment to providing solutions that help achieve reduced outage times, reduced operating costs, and clean, efficient plant operations.

Williams Industrial Services Group, LLC, Atlanta, Georgia (Booth 500)

Williams Industrial Services Group, LLC (Williams) is a family of three companies providing a comprehensive range of industrial maintenance, modification and construction services to Power Generation, Pulp and Paper, Chemical, Refining, Manufacturing and other industrial markets.

Williams has provided specialty and general maintenance services at most of the commercial nuclear power plants in the United States over the last 50 years. We offer a complete range of services including general maintenance/modification and specialty services such as coatings application, insulation, asbestos and lead abatement, roofing, valve maintenance and repair and other key services. Williams has completed many major projects under all types of contracting models. We pride ourselves on having one of the best safety performance records in the industry.

Wolverine Fire Protection Co., Mount Morris, Michigan (Booth 112)

Wolverine Fire Protection Co. is one of the largest independently family owned sprinkler contractors in the United States. Since 1958, we have been committed to the preservation of life and property through the design, installation, maintenance and service of fire protection sprinkler and alarm systems.

WorleyParsons,

Reading, Pennsylvania (Booth 428)

WorleyParsons has been a provider of professional technical, construction and project management services to the nuclear industry for over 50 years. Whether enhancing your nuclear operations with radiological design basis, safety analysis, and emergency management support, or supporting your new plant feasibility, development, design, construction or commissioning, WorleyParsons keeps your nuclear plants in compliance, online and operating at peak performance. We have the demonstrated industry commitment and capability to deliver outstanding support service from new plant development to deactivation and decommissioning, with the global presence and local project capabilities to assist customers in all phases of an asset's lifecycle.

Zachry Nuclear Engineering, Inc., Groton, Connecticut (Booth 410)

Zachry Nuclear Engineering, Inc. is a full service engineering firm that provides Engineering, Design and Project Management services to the Nuclear Power industry. Zachry Nuclear Engineering offers the services of experienced mechanical, electrical, controls, civil and structural engineering professionals and designers who are skilled in power plant systems, engineering analysis and modification package development. Zachry Nuclear Engineering has offices in Groton, CT, Chicago, IL, and Charlotte, NC. For more information please visit www.zhi.com.

Golf Tournament Information

2011 UWC Golf Tournament: Sunday, August 14, 2011

GENERAL INFORMATION

The ANS 2011 Utility Working Conference (UWC) Golf Tournament will be held at The Diplomat Golf Resort. The tournament will begin at 8:00 a.m. on Sunday, August 14, 2011.

TRANSPORTATION

The Diplomat Golf Resort is located approximately 8 blocks from the Westin Diplomat Resort and Spa. For those of you who do not have a vehicle, ANS has arranged for bus service to the Diplomat Golf Resort from the Westin Diplomat Resort and Spa (Convention Center Entrance). The first bus will leave the hotel at 6:45 a.m. and the second bus will leave at 7:00 a.m. Breakfast will be available at the Diplomat Golf Resort beginning at 7:00 a.m. The busses will also return golfers to the Westin Diplomat Resort and Spa following the UWC Golf Tournament Awards Luncheon.

Please keep in mind that the UWC Golf Tournament will begin promptly at 8:00 a.m. so please make sure that you arrive at the Diplomat Golf Resort on time.

FORMAT

The format of the tournament will be Captains Choice or Super Ball. With this format, each player will hit his or her drive. You select the best shot and everyone plays their next shot from that location. You continue this until the ball is holed out.

2011 Utility Working Conference Golf Tournament Sponsors

Anderson, Chavet & Anderson Inc.

Aquilex WSI

AREVA (2 Foursomes of Golf)

Babcock & Wilcox

Barnhart

Bechtel Power Corporation (2 Foursomes of Golf)

Black & Veatch Corporation (2 Foursomes of Golf)

Curtiss Wright Flow Control Nuclear Group (Enertech, EST Group, Nova, QualTech NP, Scientech) (2 Foursomes of Golf)

> Day & Zimmermann Engineering, Construction and Maintenance

> > Enercon Services, Inc. (2 Foursomes of Golf)

EXCEL Services Corporation (4 Foursomes of Golf)

> **Graybar** (2 Foursomes of Golf)

Invensys Operations Management (Golf Tournament Awards Luncheon)

> Nuclear Safety Associates (2 Foursomes of Golf)

NWI Consulting, LLC

Rolls-Royce

ScottMadden, Inc. (2 Foursomes of Golf)

System One (Foursome of Golf and Sponsor of the "Grab and Go" Breakfast)

> Westinghouse/PCI Energy Solutions (2 Foursomes of Golf)

Zachry Nuclear Engineering, Inc. (2 Foursomes of Golf) MARK YOUR CALENDARS -PLAN TO ATTEND!

October 30-November 3, 2011 Washington, DC Omni Shoreham Hotel

2011 ANS Winter Meeting and Nuclear Technology Expo *"The Status of Global Nuclear Deployment"*

EMBEDDED TOPICAL MEETINGS:• 1st Annual ANS SMR 2011 Conference

Young Professionals Congress 2011

PROFESSIONAL DEVELOPMENT WORKSHOPS:

- Nuclear Export Control and Legal Aspects of Nuclear Regulations
- Neutron Cross Sections for Nuclear Engineers

Register NOW! www.ans.org

