

OFFICIAL PROGRAM



# Utility Working Conference and Vendor Technology Expo



*Nuclear Sustainability  
Rising to the Challenge*



August 9-12, 2015  
Omni Amelia Island Plantation  
Amelia Island, FL



# ANS Conference

2015 Utility Working Conference and Vendor Technology Expo

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## MEETING ORGANIZERS

### GENERAL CHAIR

**Ben Waldrep**  
Vice President, Harris Nuclear Plant, Duke Energy

### PROGRAM CO-CHAIRS

**Michael L. Spellman**  
Control Room Supervisor, Duke Energy  
**Shann D. Coleman**  
Manager, Strategic Nuclear Alliances  
and Variable Resources, Duke Energy

### ASSISTANT PROGRAM CO-CHAIRS

**William H. Bishop**  
General Manager, Maintenance, Susquehanna Nuclear  
**Tom Remick**  
Section Leader, Transient Analysis,  
Arizona Public Service

### GOLF CHAIR

**Jeff Mosses**  
Sales Manager, American Nuclear Society

## TRACK LEADERS AND ORGANIZERS

### BUSINESS

**Vince Gilbert**, EXCEL Services Corporation  
**Tim Schlimpert**, MCR Performance Solutions  
**Juliann Edwards**, CB&I  
**Kerry Powell**, Duke Energy  
**Bill Mohl**, Entergy Wholesale Commodities  
**Maria Hernandez**, Duke Energy

### ENGINEERING

**Roman Estrada**, Nebraska Public Power District  
**Roland Dunn**, STP Nuclear Operating Company  
**Ted Quinn**, Technology Resources, Past ANS President  
**Sean Clark**, Black and Veatch

### EQUIPMENT INNOVATION/SUPPLY CHAIN

**Greg Keller**, AZZ Nuclear  
**Jon Ball**, GE Hitachi Nuclear Energy  
**Jim Ripple**, Southern Nuclear

### EQUIPMENT RELIABILITY

**Nally Osburn**, Duke Energy  
**Sam Stewart**, Entergy Corporation  
**Chris Welsh**, Southern Nuclear  
**Lyn Fraedrich**, Duke Energy  
**Sam Harvey**, EPRI

### EXECUTIVE

**Richard Cole**, Duke Energy  
**Don Eggett**, Amec Foster Wheeler (retired)  
**Eric Hale**, CB&I  
**Kim Crowe**, Duke Energy

### MAINTENANCE

**Bill Bishop**, Susquehanna Nuclear  
**Frederick Mooney**, PSEG Nuclear  
**Rich Carpenter**, Susquehanna Nuclear  
**William C. Eckes (Bill)**, INPO  
**Scott Ackerman**, SCANA  
**Gwen Bookheimer**, TVA

### OPERATIONS/OPS TRAINING

**Jim Kalamaja**, Duke Energy  
**Pat Chambers**, Susquehanna Nuclear

### PERFORMANCE IMPROVEMENT

**Rey Gonzalez**, HOPE Consulting  
**Ludwig (T-Bow) Thibault**, TVA (retired)  
**Jordan Gillis**, ScottMadden  
**Carrie Gilbreath**, Southern Nuclear  
**Matt Sunseri**, Zeus Enterprises

### REGULATORY RELATIONS

**Trent Wertz**, USNRC  
**Scott Bauer**, STARS Alliance

### RISK MANAGEMENT

**Bob Rishel**, Duke Energy  
**Rick Grantom**, CRG  
**Anil Julka**, NextEra  
**Mike Macfarlane**, Southern Nuclear  
**Gene Kelly**, Exelon  
**Harold Stiles**, Duke Energy  
**Jim Chapman**, Curtiss-Wright

### WORK MANAGEMENT

**Pete Arthur**, INPO  
**Jon Anderson**, ACA Inc.  
**Joan Wieging**, Entergy  
**Patrick Boyle**, Exelon  
**Mark Utz**, Exelon  
**John McDonald**, PG&E





## SUNDAY, AUGUST 9

6:30-8:00 a.m.	Grab and Go Breakfast ( <i>Sponsored by System One</i> )
8:00 a.m.-1:00 p.m.	UWC Golf Tournament
1:00-3:00 p.m.	UWC Golf Tournament Awards Luncheon ( <i>Sponsored by Schneider Electric</i> )
3:00-7:00 p.m.	Registration Hours
4:00-6:00 p.m.	Special Committee on Utility Engagement
6:00-8:00 p.m.	Opening Reception in the Vendor Technology Expo
6:00-8:00 p.m.	Vendor Technology Expo

## MONDAY, AUGUST 10

7:00 a.m.-5:00 p.m.	Registration Hours
7:30-8:30 a.m.	Continental Breakfast in the Vendor Technology Expo ( <i>Sponsored by Westinghouse Electric</i> )
7:30 a.m.-4:30 p.m.	Vendor Technology Expo
8:30-10:00 a.m.	Industry Awards Presentation & Opening Plenary: <i>Leadership and Teamwork Effectiveness</i>
10:00-10:30 a.m.	Refreshment Break in the Vendor Technology Expo
10:30 a.m.-12:00 p.m.	Educational Sessions
12:00-1:30 p.m.	Walk-Around Lunch in the Vendor Technology Expo
1:30-3:00 p.m.	Educational Sessions
3:00-3:30 p.m.	Refreshment Break in the Vendor Technology Expo
3:30-5:00 p.m.	Educational Sessions

## TUESDAY, AUGUST 11

7:00 a.m.-5:00 p.m.	Registration Hours
7:00-8:30 a.m.	Sunrise Breakfast ( <i>Sponsored by Sargent &amp; Lundy</i> )
7:30 a.m.-7:00 p.m.	Vendor Technology Expo
8:30-10:00 a.m.	Tuesday Plenary Session: <i>Operating Challenges for Life After 60</i>
10:00-10:30 a.m.	Refreshment Break in the Vendor Technology Expo
10:30 a.m.-12:00 p.m.	Educational Sessions
12:00-1:30 p.m.	Walk-Around Lunch in the Vendor Technology Expo
1:30-3:00 p.m.	Educational Sessions
1:30-3:00 p.m.	UWC Strategic Planning Meeting
3:00-3:30 p.m.	Refreshment Break in the Vendor Technology Expo
3:30-5:00 p.m.	Educational Sessions
5:00-7:00 p.m.	Cocktail Reception & Vendor Raffle in the Vendor Technology Expo
7:30-10:30 p.m.	EXCEL Services Corporation Evening Event

## WEDNESDAY, AUGUST 12

7:00 a.m.-1:00 p.m.	Registration Hours
7:30-8:30 a.m.	Continental Breakfast in the Vendor Technology Expo ( <i>Sponsored by Goodnight Consulting</i> )
7:30-9:00 a.m.	Vendor Technology Expo
8:30-10:00 a.m.	Wednesday Plenary Session: <i>Regulatory Challenges on the Horizon</i>
10:00-10:30 a.m.	Refreshment Break
10:30 a.m.-12:00 p.m.	Educational Sessions
12:00-1:00 p.m.	Lunch and Learn Session: <i>Load Following Operations and the Impact on Nuclear Sustainability in an Ever-Changing Marketplace</i>
1:00-3:00 p.m.	UWC 2015 Wrap-up/2016 Planning Meeting

## THURSDAY, AUGUST 13

7:00-10:00 a.m.	Registration Hours
7:00-8:00 a.m.	Professional Development: Breakfast
8:00 a.m.-4:00 p.m.	Professional Development Workshop: <i>Root Cause Analysis for Safety Culture and Human Performance Improvement</i>
12:00-1:00 p.m.	Professional Development: Lunch

# Daily Schedule

SUNDAY, AUGUST 9		LOCATION
6:30-7:45 a.m.	Golf Tournament "Grab & Go" Breakfast - <i>Sponsored by: System One</i>	
8:00 a.m.-1:00 p.m.	UWC Golf Tournament	Ocean Links Golf Course
1:00-3:00 p.m.	UWC Golf Tournament Awards Luncheon - <i>Sponsored by: Schneider Electric</i>	Cumberland BC
3:00-7:00 p.m.	Registration	Magnolia Foyer
4:00-6:00 p.m.	Special Committee on Utility Engagement	Hibiscus Boardroom
6:00-8:00 p.m.	Vendor Technology Expo	Magnolia Ballroom
6:00-8:00 p.m.	Opening Reception in the Vendor Technology Expo	Magnolia Ballroom
MONDAY, AUGUST 10		LOCATION
7:00 a.m.-5:00 p.m.	Registration	Magnolia Foyer
7:30-8:30 a.m.	Continental Breakfast - <i>Sponsored by: Westinghouse Electric</i>	Magnolia Ballroom
7:30 a.m.-4:30 p.m.	Vendor Technology Expo	Magnolia Ballroom
8:30-10:00 a.m.	Industry Awards Presentation & Opening Plenary: <i>Leadership and Teamwork Effectiveness</i>	Amelia Ballroom
10:00-10:30 a.m.	Refreshment Break in the Vendor Technology Expo	Magnolia Ballroom
10:30 a.m.-12:00 p.m.	<b>Educational Sessions</b> <ul style="list-style-type: none"> <li>Financial Culture</li> <li>Cumulative Effects Impact to Engineering Work – Panel</li> <li>Maintaining the Old</li> <li>Advanced Monitoring and Diagnostics</li> <li>Regulator's and NEI's Outlook on Nuclear Sustainability – Panel</li> <li>Work Management and Maintenance 2014 Performance (Trends through the eyes of INPO) – Panel</li> <li>Simulator Training Post-Flex Implementation</li> <li>Using PI Tools to Address Performance Deficiencies and Exit Policy Note 14 – Panel</li> <li>Risk Informed Work Efficiency and Cost Reduction – Panel</li> </ul>	Cumberland A Cumberland B Conference 1 Cumberland C Conference 3 Ossabaw A
12:00-1:30 p.m.	Walk-Around Luncheon in the Vendor Technology Expo	Conference 2 Ossabaw B Talbot B Magnolia Ballroom
1:30-3:00 p.m.	<b>Educational Sessions</b> <ul style="list-style-type: none"> <li>Driving Operational Focus – Panel</li> <li>Cyber Security Regulation Update – Panel</li> <li>IER 14-20 Risk Management – Engineering Applications – Panel</li> <li>Replacing the Old</li> <li>Flex Modifications and Their Impact on Maintenance, Work Management and Equipment Reliability – Panel</li> <li>Nuclear Sustainability in an Evolving Economic Environment – Panel</li> <li>A Look Inside the Looking Glass and Non-Capital/Cost Saving Solutions</li> <li>Training and its Ties to Sustainability, Preventing Events and Minimizing Rework</li> <li>Seismic PRA Lessons Learned – Panel</li> </ul>	Cumberland A Cumberland B Talbot A Conference 1 Cumberland C
3:00-3:30 p.m.	Afternoon Refreshment Break in the Vendor Technology Expo	Conference 3 Ossabaw A Ossabaw B Talbot B Magnolia Ballroom
3:30-5:00 p.m.	<b>Educational Sessions</b> <ul style="list-style-type: none"> <li>Contractor Deployment</li> <li>Digital Upgrades – Lessons Learned – Panel</li> <li>Risk-Informed Project Management and Controls – Panel</li> <li>Embracing The New</li> <li>Managing Single Point Vulnerabilities – Panel</li> <li>New Build and Sustaining the Current Generation – Panel</li> <li>Resource Utilization Effectiveness and Proper Utilization of Fix it Now (FIN) Teams – Panel</li> <li>Integration of EOP's/FLEX/SAG's/EDMG's – Panel</li> <li>Tiered Decision-Making Process – Panel</li> <li>Cumulative Effects Update and Path Forward – Regulation and Risk – Panel</li> </ul>	Cumberland A Cumberland B Talbot A Conference 1 Cumberland C Conference 3 Ossabaw A
		Conference 2 Ossabaw B Talbot B
TUESDAY, AUGUST 11		LOCATION
7:00 a.m.-5:00 p.m.	Registration	Magnolia Foyer
7:00-8:30 a.m.	Sunrise Breakfast - <i>Sponsored by: Sargent &amp; Lundy</i>	Magnolia Ballroom
7:30 a.m.-7:00 p.m.	Vendor Technology Expo	Magnolia Ballroom
8:30-10:00 a.m.	Plenary Session: <i>Operating Challenges for Life After 60</i>	Amelia Ballroom
10:00-10:30 a.m.	Refreshment Break in the Vendor Technology Expo	Magnolia Ballroom

TUESDAY, AUGUST 11 (CONTINUED)		LOCATION
10:30 a.m.-12:00 p.m.	<b>Educational Sessions</b> <ul style="list-style-type: none"> <li>• Knowledge Transfer and Retention – Part I</li> <li>• Driving Excellence in Nuclear Supplier Performance – Panel</li> <li>• Reducing Cumulative Impacts to Maintain Focus on Equipment Health</li> <li>• Nuclear Sustainability -Plant Performance and Technical Needs Perspective – Panel</li> <li>• On-Line Execution</li> <li>• Implementation of “Performance Improvement Integrated Matrix as the Centerpiece”</li> <li>• Tornado Missile RIS – Panel</li> <li>• External Flooding Plans – Panel</li> <li>• Transitioning from On-Line to Outages Back to On-Line – Panel</li> </ul>	Cumberland A Conference 2 Cumberland C Conference 3 Ossabaw A Ossabaw B
12:00-1:30 p.m.	<b>Walk-Around Luncheon in the Vendor Technology Expo</b>	Talbot A
1:30-3:00 p.m.	<b>Educational Sessions</b> <ul style="list-style-type: none"> <li>• Knowledge Transfer and Retention – Part II</li> <li>• Developing Maintenance Strategies While Balancing Reliability and Costs – Panel</li> <li>• 3D Modeling and applications to Solve Nuclear Challenges</li> <li>• Minimizing Rework Mechanical Maintenance Trends – Panel</li> <li>• Outage Performance Improvement Initiatives</li> <li>• Decommissioning Transition Regulatory Challenges – Panel</li> <li>• High Winds Lessons Learned – Panel</li> <li>• Effective Daily Work Order Screening to Incorporate Cumulative Impact Initiatives – Panel</li> </ul>	Talbot B Conference 1 Magnolia Ballroom
1:30-3:00 p.m.	<b>UWC Strategy Meeting</b>	Cumberland A
3:00-3:30 p.m.	<b>Afternoon Refreshment Break in the Vendor Technology Expo</b>	Cumberland C
3:30-5:00 p.m.	<b>Educational Sessions</b> <ul style="list-style-type: none"> <li>• Resource Utilization</li> <li>• PM Efficiencies – Panel</li> <li>• National SAFER Response Center Update – Panel</li> <li>• Life Past 60 and Iso Phase Duct Maintenance and Troubleshooting – Panel</li> <li>• Knowledge Retention and Training the New Generation</li> <li>• Effective Engagement for Sustainably Improved Performance</li> <li>• Reactor Oversight Process Reform (CDBI changes, Column 3 thresholds and SCCI) – Panel</li> <li>• Fire PRA Lessons Learned – Panel</li> <li>• Update on New Work Management Performance Indicators – Panel</li> </ul>	Conference 2 Cumberland B Ossabaw A Ossabaw B Talbot A Talbot B Conference 1 Conference 3 Magnolia Ballroom
5:00-7:00 p.m.	<b>Cocktail Reception &amp; Vendor Raffle in the Vendor Technology Expo</b>	Amelia Ballroom
7:30-10:30 p.m.	<b>Evening Event: UWC Tailgate Party – Sponsored by EXCEL Services Corporation</b>	Magnolia Ballroom
WEDNESDAY, AUGUST 12		LOCATION
7:00 a.m.-1:00 p.m.	<b>Registration</b>	Magnolia Foyer
7:30-8:30 a.m.	<b>Continental Breakfast in the Vendor Technology Expo - Sponsored by: Goodnight Consulting</b>	Magnolia Ballroom
7:30-9:00 a.m.	<b>Vendor Technology Expo</b>	Magnolia Ballroom
8:30-10:00 a.m.	<b>Plenary Session: Regulatory Challenges on the Horizon</b>	Amelia Ballroom
10:00-10:30 a.m.	<b>Refreshment Break</b>	Cumberland Foyer
10:30 a.m.-12:00 p.m.	<b>Educational Sessions</b> <ul style="list-style-type: none"> <li>• Long Range Planning</li> <li>• Nuclear Sustainability: Impact on Individual Utilities Looking Forward – Panel</li> <li>• Open Forum – What Issues Do You Have at Your Station or Fleet?– Panel</li> <li>• Initial License Class—Drivers and Results – Panel</li> <li>• Engineering Initiative For Sustainability Improved Performance</li> <li>• Fukushima – The Regulatory Road Ahead – Panel</li> <li>• Risk Informed Applications – Successes and Challenges – Panel</li> </ul>	Cumberland A Conference 3 Cumberland C Cumberland B Ossabaw B Talbot A Talbot B Amelia Ballroom
12:00-1:00 p.m.	<b>Lunch and Learn Session: Load Following Operations and the Impact on Nuclear Sustainability in an Ever-Changing Marketplace</b>	Amelia Ballroom
1:00-3:00 p.m.	<b>UWC 2015 Wrap-up/2016 Planning Meeting</b>	Ossabaw AB
THURSDAY, AUGUST 13		LOCATION
7:00-10:00 a.m.	<b>Registration</b>	Magnolia Foyer
7:00-8:00 a.m.	<b>Professional Development Workshop: Breakfast</b>	Talbot A
8:00 a.m.-4:00 p.m.	<b>Professional Development Workshop: Root Cause Analysis for Safety Culture and Human Performance Improvement</b>	Talbot A
12:00-1:00 p.m.	<b>Professional Development Workshop: Lunch</b>	Talbot A



# General Information



## 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 Opening Reception; Monday, Tuesday and Wednesday Luncheons; and access to the presentations through the Online Knowledge Center.

**NOTE:** Additional tickets can be purchased at the ANS Registration Desk for the Sunday Opening Reception and the Monday, Tuesday and Wednesday Luncheons.

## About UWC

For more information about UWC make sure to visit <http://uwc.ans.org>.

## About ANS

To view the ANS Bylaws, Mission and Code of Ethics make sure to visit [www.ans.org/about](http://www.ans.org/about).

## UWC Strategy Meeting

Meeting will take place on **Tuesday, August 11, from 1:30-3:00 p.m., in Conference 3.**

## 2015 Wrap-up/2016 Planning Meeting:

Anyone interested in organizing and planning the 2016 UWC is welcome to attend. **Wednesday, August 12, 1-3 p.m., Ossabaw AB.**

## Best Practices Poster Exhibit

The Best Practices Poster Exhibit showcases individual practices and projects submitted and displayed by U.S. Nuclear Power Stations and Nuclear Fleet Organizations. **Located in the Magnolia Foyer from Sunday - Wednesday.**

## Registration Hours

The Conference Registration Desk and the speaker check-in will be located in the Magnolia Foyer, Omni Amelia Island Plantation Resort, Saturday-Thursday.

Saturday, August 8	• 4:00-6:00 p.m.	<i>(for exhibitors and golfers)</i>
Sunday, August 9	• 3:00-7:00 p.m.	
Monday, August 10	• 7:00 a.m.-5:00 p.m.	
Tuesday, August 11	• 7:00 a.m.-5:00 p.m.	
Wednesday, August 12	• 7:00 a.m.-1:00 p.m.	
Thursday, August 13	• 7:00-10:00 a.m.	

## UWC Vendor Technology Expo

Build your network: make sure to stop by and visit UWC's 90+ Exhibitors!

Sunday, August 9	• 6:00-8:00 p.m.
Monday, August 10	• 7:30 a.m.-4:30 p.m.
Tuesday, August 11	• 7:30 a.m.-7:00 p.m.
Wednesday, August 12	• 7:30-9:00 a.m.



## Consent To Use Photographs And Videos

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## UWC GOLF TOURNAMENT & AWARDS LUNCHEON

**Location: Cumberland BC**  
**Sunday, August 9 • 6:30 a.m.-3:00 p.m.**

Starting at 6:30 a.m., golfers can enjoy a light breakfast and some practice at the driving range prior to the Golf Tournament. After, golfers can head back to the hotel for awards and lunch, starting at 1 p.m. (*Shuttle transportation will be provided*)  
See page 39 for additional information.

## OPENING RECEPTION

**Location: Magnolia Ballroom/Expo Hall**  
**Sunday, August 9 • 6:00-8:00 p.m.**

All attendees are invited to enjoy an evening of networking to kick off UWC. This event is included in your registration fee. Guests are welcome to attend with a purchased ticket.

## INDUSTRY AWARDS PRESENTATION AND OPENING PLENARY

### Leadership and Teamwork Effectiveness

**Location: Amelia Ballroom**  
**Monday, August 10 • 8:30-10:00 a.m.**

*Presenters:* Eugene Grecheck (*American Nuclear Society, President*)  
Ben Waldrep (*Vice President, Harris Plant, Duke Energy*)

#### *Speaker:*

William (Bill) Noll (*Vice President, Industry Leadership, INPO*)



### The Utility Achievement Award

The Utility Achievement Award is presented to the men and women of Vermont Yankee who successfully met the challenges of their final operating cycle with excellent operational performance, including a breaker to breaker run.

Vermont Yankee successfully met challenges of final operating cycle with excellent operational performance. The men and women of Vermont Yankee finished the final operating cycle with exceptional performance as evidenced by the following: 633 continuous days on line (breaker-to-breaker) • Longer Operating Cycle – 21 months vs. 18 months (extended coastdown to final shutdown) • Unit Capability Factor top decile performance at 98.39 • Forced Loss Rate at top quartile Equipment Reliability Index performance at 93 • Excellent CRE performance (22.577 rem) • INPO Plant Performance Index best in fleet fuel performance at top of fleet (4613 calendar days of failure free fuel) • Strong team performance (Finish Strong), managed distractions and prepared for SAFSTOR.

### The Utility Leadership Award

The Utility Leadership Award is present to Lee Rogers in recognition of his leading role in the development, promotion, design and implementation of electronic work packages.



**Lee Rogers**

Mr. Rogers is a nuclear engineer with 38 years of commercial nuclear experience. 28 of these years were acquired working at nuclear sites in numerous maintenance, operations and engineering positions, 8 years with EPRI and 2 years with DataGlance. Mr. Rogers is the “father” of the electronic Work Package (eWP). One of Mr. Rogers’ projects at EPRI was research and development in the area of mobile work management (eWP). In 2011, while at EPRI, he developed the typical nuclear plant maintenance and operations electronic work flow process, quantified the benefits for such a process and promoted this concept at numerous utility executive meetings. In October 2013 he published the first EPRI Technical Update 30020000597 “Improving the Execution and Productivity of Maintenance with Electronic Work Packages”. Mr. Rogers joined DataGlance in the fall of 2013 to assist the eWP industry transition from the theoretical design to real world execution of eWP in an operating nuclear facility. With Mr. Rogers’ insight and guidance Exelon’s Clinton nuclear station was the first commercial site to go live with eWP in July of 2014. Since then, a total of 9 nuclear sites have implemented eWP with many more scheduled or planned. Mr. Roger’s contribution to the development, promotion, design and implementation of eWP, personally helping to move it from the drawing board to the crafts hands, clearly displays his leadership in bringing this extremely positive new technology to the nuclear industry. Within 5 years electronic Work packages will become the standard throughout the industry, and this innovation will be seen as the foundation on which many more maintenance, operations and engineering process improvements are built.

# Plenary and Special Events and Sessions

## TUESDAY PLENARY SESSION

### Operating Challenges for Life After 60

**Location: Amelia Ballroom**

**Tuesday, August 11 • 8:30-10:00 a.m.**

*Moderator: Dr. Kathryn McCarthy (Director, Light Water Reactor Sustainability Program Technical Integration, Idaho National Lab)*

A high-level discussion and Q&A session surrounding the challenges involved with operating nuclear facilities beyond 60 years and the unique decision-making process that drives us there.

#### Panelists:

- Chris Miller (*Director Division of License Renewal of Nuclear Reactor Regulation, USNRC*)
- Larry Lane (*Vice President Surry Plant, Dominion Generation*)
- Chris Fallon (*Vice President-Nuclear Development, Duke Energy*)
- Sherry Bernhoft (*Program Manager-Long Term Operations, EPRI*)
- Paul Aitken (*Manager-Second License Renewal, Dominion Resources*)

## COCKTAIL RECEPTION & VENDOR RAFFLE

**Location: Magnolia Ballroom/Expo Hall**

**Tuesday, August 11 • 5:00-7:00 p.m.**

Don't miss out on an exciting opportunity to network and win fantastic prizes by attending the Vendor Raffle and Reception! To participate, simply drop off your business card at the participating booths below before 5:15 p.m. on Tuesday.

Winners will be selected and announced at each individual booth between 5:15 and 7:00 p.m. (*Please refer to the raffle schedule below*).

You must be present to win. All registered attendees are invited.

<b>AISLE 100 Raffle Times: 5:15 -5:25</b>		210	Thermo Fisher Scientific	09	Certrec Corporation
101	Black & Veatch	211 & 213	PSC	10	GE Hitachi Nuclear Energy
102	Structural Group	214	Red Wolf Associates	<b>AISLE 300 Raffle Times: 6:40 -6:50</b>	
103	S&ME, Inc.	215	Nuclear News	301	Lockheed Martin
104	DataGlance	216	Kalsi Engineering	302	KnightHawk Engineering
105	Barnhart	<b>AISLE 500 Raffle Times: 6:05 – 6:20</b>		303	UniTech Services Group
107 & 109	Envirovac Holdings, LLC	501	Westinghouse Electric Company	304	National Technical Systems (NTS)
108	SWI Systems LLC (SWI)	502	Alphasource, Inc.	305	ENERCON
111	Kiewit Power Nuclear	505	Western Services Corporation	307	Rolls-Royce
112	GLSEQ, LLC	506	Diakont	309	Joseph Oat Corporation
<b>AISLE 600 Raffle Times: 5:30 -5:40</b>		507	EnergySolutions	312, 314 & 316	AZZ Nuclear / AZZ   NLI / AZZ   WS
600	Mesa Associates Inc.	508	Doosan HF Controls Corp.	313 & 315	SPX FLOW and SPX Power & Energy
601	BHI Energy	510	Florida International University	<b>AISLE 400 Raffle Times: 6:50 -7:00</b>	
604	Sulzer Pumps (US) Inc.	511 & 513	ATC Nuclear	403	ADZ
608	RSCC Wire & Cable, LLC	514	Goodnight Consulting	406	American Crane & Equipment Corporation
615	Waste Control Specialists	515	G.D. Barri & Associates, Inc.	415	Atkins
618	United Controls International	516	Howden North America	306	Burns & McDonnell
<b>AISLE 200 Raffle Times: 5:45 -6:00</b>		<b>FOYER Raffle Times: 6:25 – 6:35</b>		404	Crane Nuclear Inc.
201	Zachry Nuclear Engineering, Inc.	01	L-3 MAPPS	402	Curtiss-Wright Corporation
202	ValvTechnologies	02	CHAMPS Software, Inc.	405	Day & Zimmermann
203	Williams Industrial Services Group, LLC	03	Ultra Electronics Nuclear Control Systems	412	EPM, Inc.
205	Radiation Protection Systems, Inc.	04, 05 & 06	EXCEL Services Corporation	414 & 416	Kinectrics
206	SCHOTT Electronic Packaging	08	Invensys / Schneider		



## EXCEL SERVICES CORPORATION EVENING EVENT

### UWC Tailgate Party

**Location: Amelia Ballroom**

**Tuesday, August 11 • 7:30-10:30 p.m.**

### It's Game Time!

You are invited for burgers, beer and cheer at the annual UWC Evening Event sponsored by EXCEL Services Corporation. Join us to celebrate another successful conference! Event is complimentary to all registered attendees and guests.

**Only requirement:** Show-off your team pride and super-fan style by wearing your favorite sports jersey.

*Prizes will be awarded for the best-dressed!*

**\*Wristband is required for entry. Make sure to stop by the EXCEL Services Corporation Event Desk near registration to pick up your wristband!\***

See our ad on page 13.

## WEDNESDAY PLENARY SESSION

### Regulatory Challenges on the Horizon

**Location: Amelia Ballroom**

**Wednesday, August 12 • 8:30-10:00 a.m.**

*Moderator:* Joe Shea (*Vice President-Nuclear Licensing, TVA*)

A panel discussion with NRC and Industry high-level executives discussing what they believe are the greatest regulatory challenges that our industry will face in the near future. A Q&A session will be included.

#### Panelists:

- Bill Dean (*Director Nuclear Reactor Regulation, USNRC*)
- Victor McCree (*Regional Administrator Region II, USNRC*)
- Adam Heflin (*President, CEO and CNO, Wolf Creek Nuclear Operating Company*)
- Mano Nazar (*President and Chief Nuclear Officer, NextEra Energy*)

## LUNCH AND LEARN SESSION

### Load Following Operations and the Impact on Nuclear Sustainability in an Ever-Changing Marketplace

**Location: Amelia Ballroom**

**Wednesday, August 12 • 12:00-1:00 p.m.**

With increasing requirements for renewable energy sources, comes an increased probability of operating the U.S. Fleet of Nuclear Power Facilities in a load-following mode. Ness Kilic of the International Atomic Energy Agency, and a former consultant engineer at Palo Verde, will share lessons learned from countries where load following is the norm or becoming a norm.

#### Speaker:

Arif Nesimi (Ness) Kilic (*Officer for Plant Operations, IAEA*)

## PROFESSIONAL DEVELOPMENT WORKSHOP

### Root Cause Analysis for Safety Culture and Human Performance Improvement

**Location: Talbot A**

**Thursday, August 13 • 8:00 a.m.-4:00 p.m.**

You do not have to be registered for the 2015 UWC to participate in this workshop.

Registration cost is \$450 for ANS members, \$550 non-members.

*(Fee includes breakfast and lunch)*

See page 26 for additional information.

# Educational Sessions: Monday, August 10

## Educational Sessions: 1 – 10:30 a.m.-12:00 p.m.

### Business

#### *Financial Culture*

*Session Organizer:* Kerry Powell (*Duke Energy*), Tim Schlimpert (*MCR Group*)

#### **Cumberland A: 10:30 a.m.-12:00 p.m.**

How can nuclear leaders develop the infrastructure to instill strong financial acumen and accountability? Discussion includes leveraging financial key performance indicators (KPIs) and CFAM financial metrics to specifically link to industry, fleet and station performance. Also included is a discussion of inventory management, supply chain efficiencies and review of an industry inventory pilot. Attendees will learn the benefits of Zero Based Budgeting and the fleet discipline it creates. The session will help attendees create an environment that reinforces accountability and supports informed decisions through accurate, timely and transparent financial reporting. An effective structure that aligns fleet processes will match ongoing financial reviews with work decisions to create better financial rigor.

#### *Speakers:*

- Finance Culture Applied: Mitch Goldstein (*Vice President of Nuclear Finance, NextEra*)
- Functional Cost Improvement: Ken Karp (*Director of Nuclear Continuous Improvement, Duke Energy*)
- Zero Based Budgeting: Dennis Koehl (*President, CEO and CNO, STPNOC*), invited
- Inventory Sharing, Cost Reductions: Bob Cole (*Manager Integrated Procurement Solutions, Areva*)

### Engineering##

#### *Cumulative Effects Impact to Engineering Work – Panel*

*Session Organizer:* Roman Estrada (*NPPD*)

#### **Cumberland B: 10:30 a.m.-12:00 p.m.**

This session will assess how engineering organizations have incorporated use of the Cumulative Effects practices into their engineering processes to improve resource impacts. It will also include an open discussion on what other ways Engineering can utilize the “cumulative effects” concepts to further improve efficiencies in Engineering work activities.

#### *Panelists:*

- Roman Estrada (*Manager-Design Engineering, Cooper, NPPD*)
- Chris Welsh (*Fleet Equipment Reliability Manager/INPO Team Member for Cumulative Effects, Southern Nuclear*)
- Millie Ruchti (*Director of Enterprise Accounts Devonway*)

*##Denotes a Cumulative Effects Virtual Track*

### Equipment Innovation/Supply Chain

#### *Maintaining the Old*

*Session Organizer:* Greg Keller (*AZZ Nuclear*)

#### **Conference 1: 10:30 a.m.-12:00 p.m.**

This session addresses situations where plants need to maintain decades-old equipment and struggles to obtain spare parts or components. The focus is on obtaining spare parts enabling maintenance to be performed, not on the maintenance itself.

#### *Speakers:*

- Motor Driving Pumping Systems, Motor Rewind or Replace: William C. Livoti (*Power Generation Business Development Manager, WEG Electric Corp.*)
- Maintaining Obsolete Safety-Related Equipment Through Reverse Engineering: Tad Gray (*General Manager, Nova & AP Services*)

### Equipment Reliability

#### *Advanced Monitoring and Diagnostics*

*Session Organizer:* Howard Nudi (*Duke Energy*)

#### **Cumberland C: 10:30 a.m.-12:00 p.m.**

Preventing Failures through monitoring and trending. Low cost technology to provide early warning and allow engineers to focus on analysis vs. data gathering.

#### *Speakers:*

- Clint Carter (*Director, Operations Services, Luminant*)
- Mike Reed (*Manager Analytical Services, Instep*)
- Sam Harvey (*Principal Technical Leader, Electric Power Research Institute*)
- Howard Nudi (*Fleet CFAM Support & ER Projects, Duke Energy*)

### Executive/Regulatory Relations

#### *Regulator's and NEI's Outlook on Nuclear Sustainability – Panel*

*Session Organizer:* Don Eggett (*Amec Foster Wheeler*)

#### **Conference 3: 10:30 a.m.-12:00 p.m.**

This session will discuss the current regulatory challenges facing the industry and the challenges these pose for nuclear sustainability. We will also touch on the successes realized to date and how these successes have better positioned nuclear to be sustainable for the next 5 to 10 years.

#### *Panelists:*

- Tony Pietrangelo (*CNO, NEI*)
- Michael (Mike) R. Johnson (*Deputy Executive Director for Operations, NRC*)

## Maintenance/Work Management

### Work Management and Maintenance 2014 Performance (Trends through the eyes of INPO) – Panel

Session Organizer: Pete Arthur (INPO), Bill Eckes (INPO)

**Ossabaw A: 10:30 a.m.-12:00 p.m.**

This session starts with a presentation by INPO on the current trends in performance. The session then opens to a discussion of what is working and not working by plant personnel in the areas discussed by INPO. Participants will leave this session with a good understanding of industry performance in general. They will also gain specific information and contact personal for what is and is not working in the areas discussed by INPO.

#### Panelists:

- Pete Arthur (Principal Evaluator-Maintenance, Work Management and Outage, INPO)
- Bill Eckes (Senior Evaluator-Maintenance, Work Management and Outage, INPO)

## Operations/Ops Training\*\*

### Simulator Training Post-Flex Implementation

Session Organizer: Pat Chambers (Susquehanna Nuclear)

**Conference 2: 10:30 a.m.-12:00 p.m.**

With the implementation of FLEX equipment at our nuclear power facilities and the expectation that operators be prepared for beyond-design-basis events, there are tremendous opportunities and challenges for simulator training. This session will deliver best practices and software developments that can make the use of the simulator a more effective tool for preparing our operators for a Fukushima-type event.

#### Presenter:

- Tom Shortell (Monticello, Xcel Energy)

\*\* Denotes a Training Virtual Track

## Performance Improvement

### Using PI Tools to Address Performance Deficiencies and Exit Policy Note 14 – Panel

Session Organizer: Jordon Gillis (ScottMadden)

**Ossabaw B: 10:30 a.m.-12:00 p.m.**

This session will feature the recovery manager from a plant that recently exited INPO Special Focus Oversight (Policy Note 14) and the recovery manager from a plant that is currently working to exit. They will share their overall approaches and lessons learned with focus on the use of PI tools and steps taken to prevent recurrence and sustain improvements. We will start with a short presentation from each and move into a panel discussion.

#### Panelists:

- Sharon Peavyhouse (Director Organizational Effectiveness - Robinson, Duke Energy)
- John Goodbred, Jr. (Recovery Manager, Susquehanna Nuclear)

## Risk Management

### Risk Informed Work Efficiency and Cost Reduction – Panel

Session Organizer: Bob Rishel (Director Nuclear Engineering-Fuels, Duke Energy)

**Talbot B: 10:30 a.m.-12:00 p.m.**

Industry Experts from utilities and NRC will provide their perspectives on how PRA in a risk informed decision making process has improved efficiency and resulted in cost reductions while maintaining a high level of safety which includes defense in depth and safety margin.

#### Panelists:

- Adam Coker (Vogtle 1&2 Site Lead for Risk Informed Engineering, Southern Nuclear)
- Joe Giitter (Director Office of Nuclear Reactor Regulation, USNRC)
- Rick Grantom (Principle CRG Consulting (retired STP))
- Gene Kelly (Senior Manager, PRA Applications and External Hazards, Exelon Nuclear Risk Management)

## UWC Tailgate Party

*It's Game Time!*

You are invited for burgers, beer and cheer  
at the annual UWC Evening Event  
sponsored by EXCEL Services Corporation.

Join us to celebrate another successful conference!  
Event is complimentary to all registered attendees and guests.

**Only requirement: Show-off your team pride and  
super-fan style by wearing your favorite sports jersey.  
Prizes for the best-dressed!**

Tuesday, August 11 • 7:30-10:30pm  
Amelia Ballroom • Omni Amelia Island

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# Educational Sessions: Monday, August 10

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## Educational Sessions: 2 – 1:30-3:00 p.m.

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### Business/Operations/Ops Training

#### *Driving Operational Focus – Panel*

Moderator: Jim Kalamaja (*Brunswick Operations Manager*)

#### **Cumberland A: 1:30-3:00 p.m.**

This session will focus on the business imperative of maintaining an Operational Focus, led by the Shift Manager, at nuclear power plants. Panelists will present best practices and lessons learned.

#### Panelists

- Keith Holbrook (*Operations Manager, Robinson, Duke Energy*)
- Darrel Perkins (*Senior Operations Manager, Arkansas Nuclear One, Entergy*)
- Robert Kreider (*Operations CFAM, Exelon*)
- Gary Dudek (*Fleet Operations Director, Southern Nuclear*)

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### Engineering/Regulatory Relations

#### *Cyber Security Regulation Update – Panel*

Session Organizer: Ted Quinn (*Technology Resources, ANS Past President*)

#### **Cumberland B: 1:30-3:00 p.m.**

This session will address current status of utility Cybersecurity Control Programs as part of implementation of NEI 08-09 R6 and NRC Reg Guide 5.71. Speakers from utility, NRC, and vendors will address current key issues and lessons learned as part of the NRC inspection programs at each facility.

#### Panelists:

- Eric Lee (*Senior Security Specialist, Office of Nuclear Security and Incident Response, USNRC*)
- Nathan Faith (*Fleet Cyber Security Manager, Exelon*)
- Matt Coulter (*Senior Engineer Nuclear Process Systems, Duke Energy*)
- Rich Dahl (*Director, Black and Veatch*)

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### Engineering

#### *IER 14-20 Risk Management – Engineering Applications – Panel*

Session Organizer: Roland Dunn (*STP*)

#### **Talbot A: 1:30-3:00 p.m.**

This session will include discussions on how organizations have implemented the IER L1-14-20 recommendation to establish formal risk reviews of projects in order to appropriately identify and manage project, operational, and enterprise risks that could potentially degrade nuclear safety and reliable unit operation. IER L1-14-20 “Integrated Risk – Healthy Technical Conscience” was issued by INPO in April 2014.

#### Panelists:

- Steve Nance (*Asset Management Coordinator, South Texas Project*)
- Lee Williams (*Sr. Vice President, Installed Based Projects, AREVA*)

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### Equipment Innovation/Supply Chain

#### *Replacing the Old*

Session Organizer: Greg Keller (*AZZ Nuclear*)

#### **Conference 1: 1:30-3:00 p.m.**

This session will address various strategies for replacing obsolete equipment with equivalent replacements. The focus of this session is on the various equivalent equipment replacement strategies such as reverse engineering, re-engineering, equipment qualification, modification of commercially available equipment, etc., and minimizing the engineering.

#### Speakers:

- New Split Mechanical Seal Technology for the Nuclear Power Industry, Alan Evans (*Market Development Manager, Power Industry, A.W. Chesterton Co.*)
- Strategy and Benefits of Replacing MCC Cubicles, Craig Irish (*VP, Sales & Marketing, AZZ Nuclear*)
- An Engineered Approach to Reduce Radiation Exposure, Tom Newman (*Technical Services Aftermarket Engineering Manager, SPX ClydeUnion*)

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### Equipment Reliability/Maintenance/Work Management##

#### *Flex Modifications and Their Impact on Maintenance, Work Management and Equipment Reliability – Panel*

Session Organizer: Jon Anderson (*ACA Inc.*)

#### **Cumberland C: 1:30-3:00 p.m.**

One of the Fukushima safety enhancements is the diverse and flexible coping capability or FLEX. This session will include all aspects of FLEX including installation and testing, ownership of the equipment, equipment performance, PM Program, classification of equipment and development of a cost effective PM Program including maintenance and testing of FLEX equipment. This session will focus on developing a successful FLEX program without causing a significant burden on plant resources.

#### Panelists:

- Jon Anderson (*CEO, ACA Inc.*)
- Nally Osburn (*ER/System GO Lead Engineer, Duke Energy*)
- Curtis Fields (*Business Development Manager, AREVA*)
- Gwen Bookheimer (*Sequoyah Nuclear Plant, Planning Manager, Electrical and I&C, TVA*)

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## Executive

### *Nuclear Sustainability in an Evolving Economic Environment – Panel*

Session Organizer: Eric Hale (CB&I)

**Conference 3: 1:30-3:00 p.m.**

The traditional utility marketplace has permanently changed – impacting both regulated and unregulated generation. The speakers will discuss how their companies are responding to the challenges of a dynamic business environment.

#### Panelist:

- Marc Potkin (Vice President of Markets, Entergy)
- Don Moul (Vice President Commodity Operations, FirstEnergy)

## Maintenance

### *A Look Inside the Looking Glass and Non-Capital/Cost-Saving Solutions*

Session Organizer: Rich Carpenter (Susquehanna Nuclear)

**Ossabaw A: 1:30-3:00 p.m.**

#### **Part 1:**

**A Look Inside the Looking Glass:** For those on the inspection side of maintenance, will take a look at e-max, a modern alternative to RT for ASME B-31.1 inspections.

- Martin Swan (Technical Manager of Operations, GE Power & Water)

#### **Part 2:**

**Introduction—Capital Problems with Non-Capital Solutions:** A case study, presentation and demonstration of valve replacement with a system in operation.

- Rich Carpenter (FME Coordinator, Susquehanna Nuclear)
- Brett Hanes (Manager New Product Introduction, Team Industrial Services)

## Performance Improvement\*\*

### *Training and its Ties to Sustainability, Preventing Events and Minimizing Rework*

Session Organizer: Rey Gonzalez (HOPE Consulting)

**Ossabaw B: 1:30-3:00 p.m.**

#### Speakers:

- Improving Organization Performance by Internalizing Training, Do employees and managers appreciate the training that they receive and support? If not, it may be a sign that your organization may not truly internalize training to improve performance. Consistently high performing organizations find that having training to improve performance is a core

competency that is ingrained in their overall performance. In this session, hear how you can make sure your team has truly internalized training to improve performance. Matt Sunseri (President, Zeus Enterprises LLC)

- Post Training Follow-up; More than an Effectiveness Review, This presentation will look at a shift in the traditional training paradigm. What type of training follow-up is the most effective to make the training stick? What will it take to shift our thinking; the easy and the difficult? We will look at research that shows coaching (mentoring) after training and its power. We will discuss how to ensure there is an adequate return on investment and sustainability on your training. Rey Gonzalez (President/Owner, HOPE Consulting)
- Why Train a Supplemental Supervisor? Many utilities have established business models that increase their reliance on a supplemental workforce for maintenance and project implementation. For many of the supervisors who enter the nuclear environment, this is culture that can be very different than they have ever experienced. This presentation will discuss how strategically investing in improving the coaching and mentoring skills of your supplemental supervisors will improve their potential for success in your organization. Richard (Dick) Cole (CPT, Ed.D, Duke -R C Consulting Principal)

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## Risk Management

### *Seismic PRA Lessons Learned – Panel*

Session Organizer: Jim Chapman (Director Safety and Risk, Curtiss-Wright)

**Talbot B: 1:30-3:00 p.m.**

Industry Experts from utilities and the NRC will provide their perspectives based on the early seismic PRAs which have been completed and peer reviewed.

#### Panelists:

- Mohamed Shams (Chief, Hazards Management Branch, Japan Lessons-Learned Division (JLD), Office of Nuclear Reactor Regulation, USNRC)
- Tony Mangan (Nuclear Engineer IV, FirstEnergy)
- Bob Rishel (Director Nuclear Engineering-Fuels, Duke Energy)
- Partha Chandran (Seismic PRA Project Lead, Southern Nuclear Operating Company)
- Se-Kwon Jung (Lead PRA Engineer, Duke Energy)

## Educational Sessions: 3 – 3:30-5:00 p.m.

### Business

#### Contractor Deployment

Session Organizer: Juliann Edwards (CB&I)

#### Cumberland A: 3:30-5:00 p.m.

This session will discuss the elements of an effective program to manage, onboard and deploy contractors across the nuclear fleet. This includes evaluation of vendor contracts to ensure appropriate charging practices, onboarding, work at the site and immediate reduction of resources post assignment. The results of the session should be key knowledge required to improve overall financial efficiency and timely contractor and shared resource qualification processes and elimination of unneeded, redundant training.

#### Speakers:

- Contractor Maintenance and Modifications In/Out Processing, Bruce Drawbridge (SVP Capital Services)
- In-Processing Improvements, John G. Horn (Director of Fleet Maintenance Contracts, Southern Nuclear Company)
- Efficiencies in Scaffolding In/Out Processing, Paul Rubin (BHI President)
- Improvements in Contractor Cost Management...A Journey Not a Spring, Shann Coleman (Manager, Strategic Nuclear Alliances and Variable Resource, Duke Energy)

### Engineering

#### Digital Upgrades – Lessons Learned – Panel

Session Organizer: Ted Quinn (Technology Resources, ANS Past President)

#### Cumberland B: 3:30-5:00 p.m.

This session will focus on the latest information from the joint NEI-NRC working group on 50.59 for digital modifications, working on an update to NEI 01-01, EPRI TR-102348 and lessons learned in this process for both safety and non-safety modifications.

#### Panelists:

- Steven Arndt (Senior Technical Advisor, Office of Nuclear Reactor Regulation, USNRC)
- Gordon Clefton (Senior Project Manager, NEI)
- Mike Bailey (Director of Digital Engineering Support, Duke Energy)
- Ted Quinn (President and Former ANS President, Technology Resources)

### Engineering

#### Risk-Informed Project Management and Controls – Panel

Session Organizer: Sean Clark (Black and Veatch)

#### Talbot A: 3:30-5:00 p.m.

An overview and discussion of successful commercially risk-informed project management and controls methods, key “red-flag” activities critical to successful project management, and methods for managing these activities throughout project life to provide certainty of scope, cost, and schedule.

#### Panelists:

- Mayo Oppenheimer (CFAM-Engineering, Dominion)
- Jon Gribble (Director-Operating Plant Projects, Black and Veatch)
- Alan Jelalian (Technical Manager, Engineering Planning and Management)
- Tiffany Coleman (Department Manager-Energy Project Controls, Black and Veatch)

### Equipment Innovation/Supply Chain

#### Embracing The New

Session Organizer: Greg Keller (AZZ Nuclear)

#### Conference 1: 3:30-5:00 p.m.

This session will introduce new technologies and the benefits and challenges with using them in nuclear. Certain products and technologies may not be cutting-edge in the industrial world, but may be new to nuclear. Examples include replacing analog equipment with digital, physical switches with proximity switches, using differential pressure to measure flow versus ultrasonic flow measurement.

#### Speakers:

- Modern Replacement of a Control Room Annunciator, DJ Bramlette (Systems Engineer, Scientech)
- Embracing New Level Measurement Technologies - Benefits from Replacing Pressure Transmitters by Radar Transmitters, Jon Feidler (Business Development Manager, Krohne)
- Lessons Learned from Modernization of Safety Related Digital I&C Systems, Ronald LeGrand (Project Director, AREVA)

### Equipment Reliability

#### Managing Single Point Vulnerabilities – Panel

Session Organizer: Sam Harvey (EPRI)

#### Cumberland C: 3:30-5:00 p.m.

Industry performance has been impacted by failures of SPV's. Improved sharing of what components are SPV's based on station design and what strategies exist to manage the health and failure of the SPV's.



## **Panelists:**

- Sam Harvey (*Principal Technical Leader, Electric Power Research Institute*)
- Bert Buford (*Equipment Reliability Corporate Functional Area Manager-South, Entergy South*)
- Thomas Roddy (*Senior Evaluator, Equipment Reliability, INPO*)
- Dan Phillips (*Senior Consulting Engineer, FENOC*)

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## **Executive**

### ***New Build and Sustaining the Current Generation – Panel***

*Session Organizers:* Dick Cole (*Duke Energy*), Eric Hale (*CB&I*)

#### **Conference 3: 3:30-5:00 p.m.**

This session will provide an overview of new construction and plant completion efforts that will help sustain our nuclear fleet for the next 40 years. We will focus on both the status and insights into why utilities are making a business case for sustained nuclear operations in today's financially competitive environment.

## **Panelists:**

- Mike McGough (*Chief Commercial Officer, NuScale*)
- Jeff Archie (*Chief Nuclear Officer, SCE&G*)

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## **Maintenance/Work Management**

### ***Resource Utilization Effectiveness and Proper Utilization of Fix it Now (FIN) Teams – Panel***

*Session Organizers:* Pete Arthur (*INPO*), Bill Eckes (*INPO*)

#### **Ossabaw A: 3:30-5:00 p.m.**

This session will take a deep dive into successes various plants have had in improving the utilization of resources. The focus is on the FIN teams including what others on site can do to improve FIN's productivity. We will discuss productivity indicators to ensure we know if we are getting better with the cumulative impact and other actions taken to improve utilization.

## **Panelists:**

- Pete Arthur (*Principal Evaluator-Maintenance, Work Management and Outage, INPO*)
- Bill Eckes (*Senior Evaluator Maintenance, Work Management and Outage, INPO*)

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## **Operations/Ops Training**

### ***Integration of EOP's/FLEX/SAG's/EDMG's – Panel***

*Session Organizer:* Jim Kalamaja (*Duke Energy*)

#### **Conference 2: 3:30-5:00 p.m.**

One of the results of Chernobyl and Fukushima is a maze of procedures and guidelines with conflicting strategies. While the EOP network is specifically symptom based, the others are not. Plants across the country are struggling to integrate these beyond-design-basis procedures into the EOP network so as enhance, not reduce, the effectiveness of the EOP's. This session will present strategies to this end.

## **Panelists:**

- Keith Holbrook (*Operations Manager, Robinson, Duke Energy*)
- Jerry Pierce (*Assistant Operations Manager Support, Brunswick, Duke Energy*)

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## **Performance Improvement**

### ***Tiered Decision-Making Process – Panel***

*Session Organizer:* Rey Gonzalez (*HOPE Consulting LLC*)

#### **Ossabaw B: 3:30-5:00 p.m.**

Effective use of a tiered decision-making process; a process with more uses than singularly with the Operations Department.

## **Panelist:**

- Kevin Jepson (*Manager HU, OE and Safety, Monticello*)
- Matt Sunseri (*President of Zeus Enterprise, LLC*)

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## **Regulatory Relations/Risk Management##**

### ***Cumulative Effects Update and Path Forward – Regulation and Risk – Panel***

*Session Chair:* Jim Chapman (*Director of Safety and Risk, Curtiss-Wright*)

#### **Talbot B: 3:30-5:00 p.m.**

Industry Experts from the NRC, NEI and utilities will provide a status of Industry and NRC activities and the plans for further improving the prioritization and scheduling of safety improvements.

## **Panelists:**

- John Butler (*Senior Director, Strategic Programs, Nuclear Energy Institute*)
- Lawrence Kokajko (*Director, Division of Policy and Rulemaking, Office of Nuclear Reactor Regulation, NRC*)
- Phil Lashley (*Fleet Licensing Supervisor, FENOC*)
- Gerry Loignon (*PRA Manager, SCANA*)

*##Denotes a Cumulative Effects Virtual Track*

# Educational Sessions: Tuesday, August 11

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## Educational Sessions: 4 – 10:30 a.m.-12:00 p.m.

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### Business/Engineering/Operations/Ops Training\*\*

#### *Knowledge Transfer and Retention – Part I*

Session Organizers: David Heler (Nuclear Human Resource Group), Dan Ranta (DR Consulting)

#### **Cumberland A: 10:30 a.m.-12:00 p.m.**

This session will review the framework and methods of Knowledge Management and the subset known as Knowledge Transfer and Retention with a focus as to how the discipline can improve business results including higher levels of performance and reduced cost. This is a precursor to Session 5, which will provide global KM/KT&R experience perspectives including case study examples.

*This session will be a group competition of up to 3 groups to illustrate key points in Knowledge Management.*

#### Presenter:

- Increasing Organizational Performance through Knowledge Management, Dan Ranta (DR Consulting)
- Glenn Neises (Nuclear Director, Burns & McDonnell)

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### Equipment Innovation/Supply Chain

#### *Driving Excellence in Nuclear Supplier Performance – Panel*

Session Organizer: Jon Ball (GE Hitachi Nuclear Energy)

#### **Conference 2: 10:30 a.m.-12:00 p.m.**

This session will review the essential principles and attributes that support achieving excellence in the services and products provided by nuclear suppliers, as outlined in INPO Principles 14-005, “Principles for Excellence in Nuclear Suppliers.” The session includes an inspirational focus on why excellence in the nuclear supply chain matters: Are we best in the world, or best FOR the world?

#### Panelist:

- Maureen Kunapareddy (Manager of Supplier Participation Program, INPO)
- David O’Brien (Vice President of Supply Chain Management, Exelon)
- Cindy Wagner (Human Performance Leader, GE Hitachi Nuclear Energy)

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### Equipment Reliability##

#### *Reducing Cumulative Impacts to Maintain Focus on Equipment Health*

Session Organizer: Chris Welsh (Southern Nuclear)

#### **Cumberland C: 10:30 a.m.-12:00 p.m.**

This session will focus on industry best practices with respect to cumulative impacts and equipment reliability along with providing an update on the work being performed in this area by the Equipment Reliability Working Group (ERWG).

#### Presenters:

- Chris Welsh (Fleet Equipment Reliability Manager, Southern Nuclear)
- Nagi Gebracel (Chandler Family Chair Associate Professor, Georgia Tech)

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### Executive

#### *Nuclear Sustainability -Plant Performance and Technical Needs Perspective – Panel*

Session Organizers: Richard Cole (Duke Energy), Eric Hale (CB&I), Don Eggett (Amec Foster Wheeler), Kimberly Crowe (Duke Energy)

#### **Conference 3: 10:30 a.m.-12:00 p.m.**

This session will provide EPRI and INPO insights into what industry leadership considers the areas where we need additional focus to sustain our performance and remain competitive in the current and projected financial and regulatory environment.

#### Panelists:

- Tina Taylor (Director, Nuclear External Affairs at EPRI)
- Bill Noll (Vice President Industry Leadership, INPO)

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### Maintenance

#### *On-Line Execution*

Session Organizer: Lee Rogers (DataGlance)

#### **Ossabaw A: 10:30 a.m.-12:00 p.m.**

A panel discussion and deep dive into the challenges of on-line execution including electronic work orders and electronic procedures.

#### Speakers:

- Electronic Work Package (eWP), Lee Rogers (Vice President of Strategy and Solution, DataGlance)
- Overview; Utility Project Implementation Updates, Nick Camilli (Project Manager, EPRI)

## Performance Improvement##

### *Implementation of “Performance Improvement Integrated Matrix as the Centerpiece”*

Session Organizer: Carrie Gilbreath (Southern Nuclear)

#### **Ossabaw B: 10:30 a.m.-12:00 p.m.**

While working in the nuclear industry post cumulative impacts, departments can no longer rely on the Corrective Action Program to do automatic prioritization of issues and actions. In order to find and fix issues more efficiently and effectively, we will discuss methods to utilize the PI model holistically with the Performance Improvement Integrated Matrix as the centerpiece. This presentation will focus on ways to eliminate running each PI tool associated with the PI model as a separate program, ultimately avoiding duplication of work and unnecessary process burden.

#### Presenter:

- Carrie Gilbreath (Corporate OE Programs Manager, Southern Nuclear)

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## Regulatory Relations

### *Tornado Missile RIS – Panel*

Session Chair: Bruce Montgomery (Constellation)

#### **Talbot A: 10:30 a.m.-12:00 p.m.**

Industry Experts from NRC and utilities will provide their perspectives on lessons learned including challenges and opportunities to address evolving expectations.

#### Panelists:

- Tim McGinty (Director, Division of Safety Systems, Office of Nuclear Reactor Regulation, USNRC)
- Scot Greenlee (Engineering and Technical Services Senior Vice President, Exelon)
- Bruce Montgomery (Engineering and Technical Services Senior Vice President, Constellation)
- Greg Casto (Branch Chief for Balance of Plant, USNRC)
- Doug McKinney (Licensing Manager, Southern Nuclear)

## Risk Management

### *External Flooding Plans – Panel*

Session Organizer: Anil Julka (PRA Manager, NextEra)

#### **Talbot B: 10:30 a.m.-12:00 p.m.**

Industry experts from the NRC and utilities will provide their perspectives on challenges and opportunities as they address external floods beyond the current design basis.

#### Panelists:

- Ashley Lindeman (Technical Leader Risk & Safety Management, EPRI)
- Mike Tcshiltz (Director Risk Assessment, NEI)
- Mohamed Shams (Chief of Hazards Management Branch, Japan Lessons-Directorate, Office of Nuclear Reactor Regulation, NRC)
- Bob Rishel (Director Nuclear Engineering-Fuels, Duke Energy)

## Work Management

### *Transitioning from On-Line to Outages Back to On-Line – Panel*

Session Organizers: Patrick (Pat) Boyle (Exelon), Joan Wieging (Entergy)

#### **Conference 1: 10:30 a.m.-12:00 p.m.**

One of the largest challenges facing Work Control and Maintenance today is the transition into and out of outages. In this session, we will review best practices and lessons learned to help everyone become better at making these transitions.

#### Panelists:

- Joan Wieging (Senior Manager Production, River Bend, Entergy)
- Patrick (Pat) Boyle (Director of Site Work Management, Braidwood, Exelon)



# Educational Sessions: Tuesday, August 11

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## Educational Sessions: 5 – 1:30-3:00 p.m.

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### Business/Engineering/Operations/Ops Training\*\*

#### *Knowledge Transfer and Retention – Part II*

Session Organizers: David Heler (*Nuclear Human Resource Group*), Vince Gilbert (*Excel Services*)

#### **Cumberland A: 1:30-3:00 p.m.**

This session builds on discussions from Session 4 by providing a global perspective to the topic through international business experience and case studies. Session attendees will be able to identify useful take-aways from presentations and the opportunity to ask specific questions of members of an expert panel.

#### Speakers:

- IAEA Knowledge Management Assessment Tool – Assessing and Identifying KM Gaps, David Heler (*Workforce Capital Advisors*)
- Alan Jelalian (*Technical Manager, Engineering Planning and Management*)
- James Kloosterman (*Executive Consultant, Tetra Tech*)
- Glenn Neises (*Nuclear Director, Burns & McDonnell*)

\*\* Denotes a Training Virtual Track

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### Engineering/Equipment Reliability

#### *Developing Maintenance Strategies While Balancing Reliability and Costs – Panel*

Session Organizer: Nally Osburn (*Duke Energy*)

#### **Cumberland C: 1:30-3:00 p.m.**

Panel Discussion on how to develop maintenance strategies to 2015 standards and utilize new tools to balance reliability and costs.

#### Panelist:

- Kyle Wallis (*Supervisor-Equipment Reliability, South Texas Project*)
- Nally Osburn (*ER/System GO Lead Engineer, Duke Energy*)
- Derrick Valine (*PMWG Chair, Diablo Canyon, PG&E*)
- Bill Bishop (*General Manager Maintenance, Susquehanna Nuclear*)
- Ness Kilic (*Officer for Plant Operations, International Atomic Energy Agency*)

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### Equipment Innovation/Supply Chain

#### *3D Modeling and Applications to Solve Nuclear Challenges*

Session Organizer: Jon Ball (*General Electric*)

#### **Conference 2: 1:30-3:00 p.m.**

This session will focus on how advanced technologies such as additive manufacturing, 3D scanning, and modeling are being applied to the nuclear industry. The session will address the benefits and challenges of introducing these new technologies to solve the unique challenges of the nuclear industry.

#### Speakers:

- Utilizing Modeling and Simulation for 3D Spatial Studies and Process Analysis, Nick Drucker (*Program Manager, Stoller Newport News Nuclear (SN3)*)
- Underwater Laser Scanning and Modeling, John Bramblet (*President and CEO, Newton Labs*)
- 3D Metal Printing Application to Nuclear, Fran Bolger (*GE Hitachi Nuclear*)

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### Maintenance

#### *Minimizing Rework – Mechanical Maintenance Trends – Panel*

Session Organizer: Bill Eckes (*INPO*)

#### **Ossabaw A: 1:30-3:00 p.m.**

A panel discussion into the Best Practices in minimizing rework, improving Maintenance quality and preventing events.

#### Panelist:

- Bill Eckes (*Senior Evaluator-Maintenance, Work Management and Outage, INPO*)

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### Performance Improvement

#### *Outage Performance Improvement Initiatives*

Session Organizer: Rey Gonzalez (*HOPE Consulting LLC*)

#### **Ossabaw B: 1:30-3:00 p.m.**

A presentation and interactive discussion.

#### Presenter:

- Randy Schenk (*Director of Reactor Fleet Services, Duke Energy*)

## Regulatory Relations

### *Decommissioning Transition Regulatory Challenges – Panel*

*Session Chair:* Rod McCullum (*Senior Director for Used Fuel and Decommissioning Programs, NEI*)

**Talbot A: 1:30-3:00 p.m.**

Industry experts from the NRC and utilities will provide their perspectives.

#### ***Panelists:***

- Scott Morris (*Director Division of Inspection and Regional Support, Office of Nuclear Reactor Regulation, USNRC*)
- Pam Cowan (*Director, Spent Fuel and Decommissioning, Exelon*)
- Coley Chappell (*Licensing Manager, Entergy*)
- Rod McCullum (*Senior Director for Used Fuel and Decommissioning Programs, NEI*)

## Risk Management

### *High Winds Lessons Learned – Panel*

*Session Organizer:* Anil Julka (*PRA Manager, NextEra*)

**Talbot B: 1:30-3:00 p.m.**

Industry Experts from NRC and utilities will provide their perspectives on lessons learned including challenges and opportunities to address evolving expectations.

#### ***Panelists:***

- Joe Giitter (*Director Division of Risk Assessment, Office of Nuclear Reactor Regulation, NRC*)
- Bob Rishel (*Director, Nuclear Engineering – Fuels, Duke Energy*)
- Gene Kelly (*Senior Manager-PRA Applications and External Hazards, Exelon Nuclear*)
- Ashley Lindeman (*Technical Leader Risk & Safety Management, EPRI*)

## Work Management##

### *Effective Daily Work Order Screening to Incorporate Cumulative Impact Initiatives – Panel*

*Session Organizers:* Mark Utz (*Exelon*), Joan Wieging (*Entergy*)

**Conference 1: 1:30-3:00 p.m.**

An effective Work Control process starts with the generation of quality work orders. A key step in this process is the daily screening committee. This session will discuss the successes being realized by some plants and the actions that helped them to be successful. Cumulative impact recommendations will be reviewed in the context of how plants have used them to improve the quality and cost of conducting the daily work order screenings.

#### ***Panelists:***

- Mark Utz (*Manager Corporate Work Control, Exelon*)
- Joan Wieging (*Senior Manager Production, River Bend, Entergy*)

##Denotes a Cumulative Effects Virtual Track

## Educational Sessions: 6 – 3:30-5:00 p.m.

### **Business/Equipment Innovation/Supply Chain/ Maintenance/Work Management**

#### ***Resource Utilization***

*Session Organizers:* Vince Gilbert (*Excel Services*), Kerry Powell (*Duke Energy*)

**Cumberland A: 3:30-5:00 p.m.**

This session will provide a panel of experts to address effective methods for resource utilization in nuclear operations. Considerations include employee development, organizational efficiencies, make versus buy analysis, contractor support, efficiency of the supply chain and overall cost management. Attendees should be able to take away a practical understanding of the resource utilization issue as well as being able to identify a few improvements to evaluate for implementation within their own organizations.

#### ***Speakers:***

- Resource Issues, Industry Trends/Best Practices, Sean Lawrie (*Managing Partner, ScottMadden*)
- Savings with Centralized Resources, Ernie Kapopoulos (*Vice President Nuclear Ops Support, Duke Energy*)
- Resource Efficiencies Realized in Energy Supply Chain, Glenn Griffin (*Director Generation Supply Chain, Entergy*)

## Engineering

### *PM Efficiencies – Panel*

Session Organizer: Roland Dunn (NPPD)

#### **Cumberland C: 3:30-5:00 p.m.**

This session will include discussions on the process used by organizations to determine the appropriate preventative maintenance (PM) activities to ensure reliable FLEX equipment operation. Results of the FLEX equipment PM process, including projected person-hours will be provided.

#### Panelists:

- Kyle Wallis (*Supervisor-Equipment Reliability, South Texas Project*)
- Roman Estrada (*Manager Design Engineering, NPPD*)
- AREVA—TBD

## Equipment Innovation/Supply Chain

### *National SAFER Response Center Update – Panel*

Session Organizer: Jim Ripple (*Southern Nuclear*)

#### **Conference 2: 3:30-5:00 p.m.**

This session will provide an update on the operation of the two National SAFER Response Centers (Memphis and Phoenix) including equipment maintenance, response readiness and remaining implementation actions for the FLEX Phase 3 equipment. Utility roles and responsibilities will be reviewed together with key insights from the training conducted to date. Planned updates to the Response Plans, Load Plans and Flight Plans will be discussed as well.

#### Panelists:

- David Crawley (*SAFER Project Manager, PEICo/PIM*)
- Michael Powell (*Director, Fukushima Initiatives, Arizona Public Service*)
- Martin Trum (*SAFER Program Manager, Areva*)
- Dan Brush (*Senior Project Manager, Exelon*)

## Equipment Reliability/Maintenance

### *Life Past 60 and Iso Phase Duct Maintenance and Troubleshooting – Panel*

Session Organizer: Kathryn McCarthy (*Director, Light Water Reactor Sustainability Program Technical Integration, Idaho National Labs*)

#### **Cumberland B: 3:30-5:00 p.m.**

The forward lookers will be treated to a look again at “Life past Sixty” a panel discussion with the most knowledgeable experts in the industry, Dr. Kathy McCarthy of Idaho Labs, Sherry Bernhoft of EPRI and Chris Miller of the NRC as they discuss how to add additional life to our existing Nuclear Generating Stations. No discussion on “Life Past Sixty” would be complete without a look at the only major system in our plants that does not have a back-up, “The Iso-Phase System”.

#### Panelists:

- Dr. Kathryn McCarthy (*Director, Light Water Reactor Sustainability Program Technical Integration, Idaho National Labs*)
- Chris Miller (*Director Division of License Renewal of Nuclear Reactor Regulation, USNRC*)
- Sherry Bernhoft (*Program Manager, Long Term Operations, EPRI*)

## Operations/Ops Training \*\*

### *Knowledge Retention and Training the New Generation*

Session Organizer: Rich Carpenter (*Susquehanna Nuclear*)

#### **Ossabaw A: 3:30-5:00 p.m.**

The “greying” and ultimate retirement of the current (and in large part the first) generation of nuclear operator presents many challenges: a loss of experience, incomplete knowledge transfer, inability to instruct and teach (due to generational differences) and the necessity to maintain increasingly demanding safety and operating standards. Virtual Environments (VE) now offer many advantages in presentation, realism, assessment, scenario, and robustness that have been forecast in Science Fiction. This session will look at several aspects of VE to demonstrate the capabilities and offer possible ways forward to enhance the technical competence and confidence of the next generation of nuclear operators.

#### Speakers:

- Billy Baker (*Work Controls Manager, Southern*)
- Mark Nesselrode (*Modeling and Simulation Principle SME, General Dynamics*)

\*\* *Denotes a Training Virtual Track*



## Performance Improvement

### *Effective Engagement for Sustainably Improved Performance*

Session Organizer: Rey Gonzalez (HOPE Consulting)

#### **Ossabaw B: 3:30-5:00 p.m.**

What are the most effective coaching tools to change behaviors? When coaching in the field, what is your presence and demeanor? Do you potentially impact the behaviors you are observing? In this presentation, we will discuss important attributes coaches can use to engage workers effectively and provide collaborative understanding of behaviors to improve and sustain performance.

#### Speakers:

- Brandon Marlow (Manager-HU/OR Program, Southern Nuclear)
- Rey Gonzalez (President of HOPE Consulting)
- Richard (Dick) Cole (CPT, Ed.D, Principle, Duke - RC Consulting)

## Regulatory Relations

### *Reactor Oversight Process Reform (CDBI changes, Column 3 thresholds and SCCI) – Panel*

Session Chair: Joe Shea (Vice President, Nuclear Licensing, TVA)

#### **Talbot A: 3:30-5:00 p.m.**

Industry experts from the NRC and utilities will provide their perspectives on challenges and opportunities as they address proposed changes to the Reactor Oversight Process.

#### Panelists

- Scott Morris (Director Division of Inspection and Regional Support, Office of Nuclear Reactor Regulation, USNRC)
- David Mannai (Senior Manager-Fleet Regulatory Assurance, Entergy)
- Bruce Montgomery (Senior Project Manager, NEI)
- Lee Grzech (Regulatory Affairs Manager Brunswick, Duke Energy)
- Joe Shea (Vice President, Nuclear Licensing, TVA)

## Risk Management

### *Fire PRA Lessons Learned – Panel*

Session Organizer: Rick Grantom (CRG LLC, retired STPNOC)

#### **Talbot B: 3:30-5:00 p.m.**

Industry experts from the NRC and utilities will provide their perspectives on lessons learned and the path forward to improve realism and efficiency.

#### Panelists:

- Joe Giitter (Director Division of Risk Assessment, Office of Nuclear Reactor Regulation, NRC)
- Anil Julka (PRA Manager, NextEra)
- Ashley Lindeman (Technical Leader Risk & Safety Management, EPRI)
- Harold Stiles (Lead Engineer-PSA, Duke Energy)

## Work Management

### *Update on New Work Management Performance Indicators – Panel*

Session Organizers: John McDonald (PG&E), Mark Utz (Exelon)

#### **Conference 1: 3:30-5:00 p.m.**

This session will include a discussion of the implementation of new performance indicators. The goals of this session are to understand what the new indicators are and how they can be used to our advantage to help improve our performance.

#### Panelists

- Mark Utz (Manager Corporate Work Control, Exelon)
- John McDonald (Manager Corporate Work Control, Southern Nuclear)

# Educational Sessions: Wednesday, August 12

## Educational Sessions: 7 – 10:30 a.m.-12:00 p.m.

### Business/Engineering/Work Management

#### Long Range Planning

Session Organizer: Tim Schlimpert (MCR Group)

#### Cumberland A: 10:30 a.m.-12:00 p.m.

This session will discuss how to optimize the fleet long range planning process for the selection of capital investments (plant modifications) across the fleet. It will also consider having special regulatory relief annual limits on capital spend; improved prioritization; O&M modification scope control; and project development, setting limits to fast track exceptions and the control of project scope.

#### Speakers:

- Incorporating Urgency into Asset Management, Phil Jones (Vice President, Copperleaf Technologies)
- Intergrated Life Cycle Management, Sam Harvey (Project Technical Lead, EPRI)
- Challenges in Long Range Planning, Tim Schlimpert (Vice President, MCR Group)
- Long Range Planning at STP, Steve Nance (Asset Management Coordinator, South Texas Project)

### Executive

#### Nuclear Sustainability: Impact on Individual Utilities Looking Forward – Panel

Session Organizers: Don Eggett (Amec Foster Wheeler), Richard Cole (Duke Energy), Eric Hale (CB&I), Kimberly Crowe (Duke Energy)

#### Conference 3: 10:30 a.m.-12:00 p.m.

This session will bring together utility executives to discuss nuclear sustainability – What impact the challenges today have on their utility and what might be in store for the future if these challenges are not removed.

#### Panelists:

- Mike Glover (Vice President, Robinson Duke Energy)
- Scott Batson (Vice President, Oconee)
- Tim Rausch (Senior Vice President and Chief Nuclear Officer, Susquehanna Nuclear)
- Dennis Koehl (Chief Executive Officer, President and Chief Nuclear Officer, STPNOC)

### Maintenance/Work Management

#### Open Forum – What Issues Do You Have at Your Station or Fleet? – Panel

Moderators: Pete Arthur (INPO), Bill Eckes (INPO)

#### Cumberland C: 10:30 a.m.-12:00 p.m.

This session will include an open discussion of challenges that stations are facing. Pete Arthur and Bill Eckes will kick off the discussion and turn it over to participants to bring up for discussion the challenges that they are facing. Discussion by other participants will help to provide solutions that work for them.

#### Panelists:

- Pete Arthur (Principal Evaluator-Maintenance, Work Management and Outage, INPO)
- Bill Eckes (Senior Evaluator Maintenance, Work Management and Outage, INPO)

### Operations/Ops Training\*\*

#### Initial License Class—Drivers and Results – Panel

Session Organizer: Pat Chambers (Susquehanna Nuclear)

#### Cumberland B: 10:30 a.m.-12:00 p.m.

We will provide a panel of industry experts to share best practices with regard to initial license class success. The focus will be on learning from those organizations that have managed to drive their success rate well above the industry average. The goal is focus on actions that actually get results from which we will derive recommendations.

#### Panelist:

- John Brown (Operations Training Manager, Ginna, Exelon)
- Phil Prater (Operations Training Manager, Dresden, Exelon)
- Pat Chambers (Maintenance and Technical Training Manager, Susquehanna Nuclear)

\*\*Denotes a Training Virtual Track

### Performance Improvement/Engineering

#### Engineering Initiative for Sustainably Improved Performance

Session Organizer: Matt Sunseri (Zeus Enterprises LLC)

#### Ossabaw B: 10:30 a.m.-12:00 p.m.

This session will focus on real-world engineering improvement initiatives and the results that have been achieved.

#### Presenter

- John A. Taylor (Director of Engineering, Comanche Peak Steam Electric Station, Luminant)

## Regulatory Relations

### *Fukushima – The Regulatory Road Ahead – Panel*

*Session Chair:* Scott Bauer (STARS Regulatory Affairs Functional Area Manager/Sr. Project Manager, NEI)

**Talbot A: 10:30 a.m.-12:00 p.m.**

A panel of NRC, NEI and industry experts will address the challenges associated with the proposal to integrate flooding and seismic with Mit Strat with the possibility of accelerating the implementation with the backstop date in 2016. Plant already in compliance with Mit Strat may need to revise their strategies, equipment, procedures and training.

#### Panelists:

- Jack Davis (*Director Japan Lessons-Learned Division, Office of Nuclear Reactor Regulation, USNRC*)
- Joe Pollock (*Vice President, Nuclear Operations, NEI*)
- Bryan Ford (*Senior Licensing Manager, Entergy*)
- David Gambrell (*SAm, Program Director, Southern Company*)
- Scott Bauer (*STARS Regulatory Affairs Functional Area Manager/Sr. Project Manager, NEI*)

## Risk Management

### *Risk Informed Applications – Successes and Challenges – Panel*

*Session Organizer & Chair:* Rick Grantom (CRG LLC, retired STPNOC)

**Talbot B: 10:30 a.m.-12:00 p.m.**

Industry experts will describe what worked well and what has worked poorly. Further, they will discuss actions taken and those underway to improve the effectiveness and efficiency of risk informed applications.

#### Panelists:

- Victoria Andersen (*Senior Project Manager-Risk Assessment, NEI*)
- Joe Giitter (*Director Division of Risk Assessment, Office of Nuclear Reactor Regulation, NRC*)
- Adam Coker (*Risk Informed Applications Lead Engineer, Southern Nuclear*)
- Bob Rishel (*Director Nuclear Engineering-Fuels, Duke Energy*)



**See you in DC!**  
 November 8-12, 2015  
 Marriott Wardman Park  
 Washington, DC  
[answinter.org](http://answinter.org)



# ANS Professional Development Workshop

## Improving Your Root Cause Analysis Skills

Thursday, August 13, 2015  
8:00 a.m.-4:00 p.m.

### Workshop Organizer and Instructor:

Dick Swanson, PE, President, Performance Management Initiatives, Inc., St. Joseph, Michigan  
269-428-7447  
[RNS@PMI-inc.com](mailto:RNS@PMI-inc.com)

**Materials provided:** 1) Hard copy of PowerPoint™ Slide Show for note taking, 2) PowerPoint file (PPT) of slideshow for use in cascade training in attendees' 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).

**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 investigations
- Safety Conscious Work Environment
- Employee Concerns Program

### Who Should not Attend:

This workshop is **not** 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.
- Event consequences are not controlled by business decisions.
- Event investigation should be done mainly to satisfy outside agencies.

### What Will Happen in Class:

During this workshop we will journey with the instructor through a human performance-oriented approach to extracting what organizations should respond to, and learn, from facility or organizational events.

Following workshop completion, we will be ready to apply proven tools that have been successfully used to analyze events in nuclear power generation, fossil power generation, electric transmission and distribution, natural gas distribution, site remediation, manufacturing, offshore oil, petrochemicals, and state and federal government agencies.

We will participate in hands-on individual and group work in the application of bottom-line customer focused techniques that leverage investigators' abilities to do out-of-the-box thinking.

This workshop will furnish the attendees with a spectrum of immediately applicable action items that are compatible for use within most existing corrective action programs. Participant-instructor interactions will emphasize the modeling and emulation of proven investigator and management behaviors.

### Workshop topics will include:

- Business Assessment of RCA Reports
- Regulatory Assessment of RCA Reports
- Using Event Investigation as a Window into the Culture
- Safety Culture in Root Cause Analysis
- Standard Approaches to RCA
- 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
- State-of-the-Art Investigative Tools.



# ANS

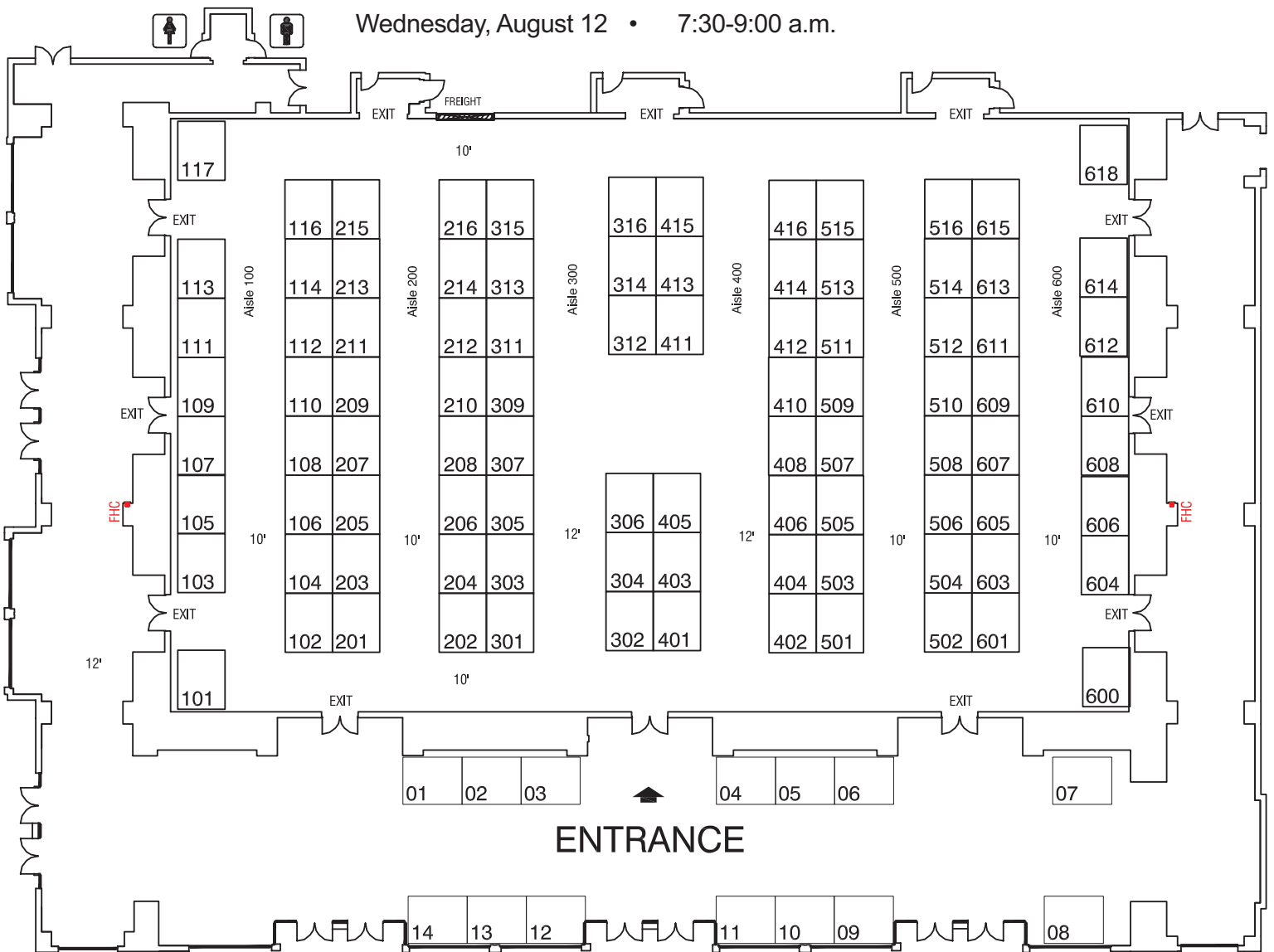
## 2015 Utility Working Conference Vendor Technology Expo

### Omni Island Plantation Resort

### Amelia Island, Florida

#### Expo Hours:

- Sunday, August 9 • 6:00-8:00 p.m.
- Monday, August 10 • 7:30 a.m.-4:30 p.m.
- Tuesday, August 11 • 7:30 a.m.-7:00 p.m.
- Wednesday, August 12 • 7:30-9:00 a.m.



# Exhibitors List

ADZ (403)	Kiewit Power Nuclear (111)
AECOM (311)	Kinectrics (414, 416)
Aerofin (113)	KnightHawk Engineering (302)
Alphasource, Inc. (502)	Konecranes Nuclear Equipment & Services (512)
Amec Foster Wheeler (11)	KSB, Inc. (614)
American Crane & Equipment Corporation (406)	L-3 MAPPS (01)
AREVA Inc. (401)	Lockheed Martin (301)
ATC Nuclear (511 & 513)	Mesa Associates Inc. (600)
Atkins (415)	Mitsubishi Electric Power Products, Inc. (13)
AZZ Nuclear/AZZINLI/AZZIWSI (312, 314, 316)	Mitsubishi Nuclear Energy Systems, Inc. (504)
Barnhart (105)	National Technical Systems (NTS) (304)
Bechtel (208)	New York Blower Company (212)
BHI Energy (601)	Nuclear News (215)
Black & Veatch (101)	Nuclear Plant Journal (411)
Burns & McDonnell (306)	PSC (211 & 213)
BWX Technologies, Inc. (14)	Radiation Protection Systems, Inc. (205)
Ceradyne, Inc., a 3M Company (116)	Red Wolf Associates (214)
Certrec Corporation (09)	ReNuke Services, Inc. (12)
CHAMPS Software, Inc. (02)	Rolls-Royce (307)
Copperleaf Technologies (117)	RSCC Wire & Cable, LLC (608)
Crane Nuclear Inc. (404)	S&ME, Inc. (103)
Curtiss-Wright Corporation (402)	Saulsbury Industries (606)
DataGlance (104)	SCHOTT Electronic Packaging (206)
Day & Zimmermann (405)	Score Atlanta Inc. (610)
Diakont (506)	SNC-Lavalin (509)
Doosan HF Controls Corp. (508)	SPX FLOW and SPX Power & Energy (313, 315)
DRS Consolidated Controls, Inc. (207)	Structural Group (102)
Electrical Builders, Inc. (EBI) (07)	Structural Integrity Associates, Inc. (603)
ENERCON (305)	Sulzer Pumps (US) Inc. (604)
Energy Steel & Supply Company (110)	SWI Systems LLC (SWI) (108)
EnergySolutions (507)	System One (209)
Envirovac Holdings, LLC (107 & 109)	Teledyne Brown Engineering (114)
EPM, Inc. (412)	Thermo Fisher Scientific (210)
EXCEL Services Corporation (04, 05 & 06)	Toshiba America Energy Systems Corporation (503)
Florida International University (510)	TransWare Enterprises Inc. (607)
Flowserve Corporation (408, 410)	Ultra Electronics Nuclear Control Systems (03)
Garney Construction (106)	UniTech Services Group (303)
G.D. Barri & Associates, Inc. (515)	United Controls International (UCI) (618)
GE Hitachi Nuclear Energy (10)	ValvTechnologies (202)
General Dynamics Information Technology (413)	Waste Control Specialists (615)
GLSEQ, LLC (112)	Western Services Corporation (505)
Goodnight Consulting (514)	Westinghouse Electric Company (501)
Howden North America (516)	Williams Industrial Services Group, LLC (203)
Idaho National Laboratory (204)	Zachry Nuclear Engineering, Inc. (201)
Invensys / Schneider (08)	Zuuk International Inc. (611)
James C. White Company, Inc. (605)	
Joseph Oat Corporation (309)	
Kalsi Engineering (216)	



**ADZ****Lynchburg, VA (Booth 403)**

ADZ is a joint venture that combines the world-class capabilities of AREVA and Day & Zimmermann to offer comprehensive engineering, procurement and construction services to U.S. nuclear utilities. ADZ has a successful history of working on modification projects at nuclear power sites with predictable and value-added results. [adz-nuclear.com](http://adz-nuclear.com)

**AECOM****Fort Mill, SC (Booth 311)**

AECOM is a full-service contractor to the nuclear power industry, encompassing discrete or bundled services of program management, planning, licensing, QA/QC, engineering, procurement, construction, commissioning, maintenance, outage management, and decommissioning. We have more than 60 continuous years of nuclear facility experience, supporting owners, NSSS suppliers, and developers of enrichment facilities.

**Aerofin****Lynchburg, VA (Booth 113)**

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.

**Alphasource, Inc.****Philadelphia, PA (Booth 502)**

Alphasource is the leading custom manufacturer and distributor of quality FME/FOD maintenance and drop-prevention supplies, specialized RFID solutions and innovative safety supplies for the Nuclear Industry.

Benefit from our award-winning FME/FOD Turnkey Program, RFID-Barcode Operational Efficiency Solutions, Tarps/Protective Covers, MRO, Safety, Wiping Cloths, and Decon. Supplies Programs.

Count on us for field-proven products and services backed by three generations of practical experience with quick turnaround capabilities that ensure your deadlines and compliance needs are satisfied.

**Amec Foster Wheeler****Tucker, GA (Booth 11)**

Amec Foster Wheeler designs, delivers and maintains strategic and complex assets for customers around the world in energy and related sectors. With over 40,000 employees in more than 50 countries, the company has over 3,000 engineers and technical specialists dedicated to the nuclear power industry.

**American Crane & Equipment Corporation****Douglasville, PA (Booth 406)**

American Crane & Equipment Corporation (ACECO) is a leading provider of cranes, hoists, and specialized lift systems. ACECO has supplied numerous cranes and replacement trolleys/hoists for dry spent fuel storage and radioactive waste remediation. American Crane has performed upgrades of a variety of nuclear plant cranes, including reactor building and turbine cranes. ACECO has an ASME NQA-1 and 10CFR50, Appendix B QA Program. ACECO's service department performs crane maintenance and upgrades.

**AREVA Inc.****Lynchburg, VA (Booth 401)**

As a world leader in nuclear power, AREVA in North America (AREVA Inc.) combines U.S. and Canadian leadership to provide utilities with proven expertise and uncompromising dedication to safety in every stage of the nuclear fuel cycle, reactor design and construction, and operating services. AREVA's nearly 4,300 U.S. and Canadian employees contribute to building tomorrow's energy model: Supplying the greatest number of people with energy that is safer and with less CO<sub>2</sub>. [www.us.aveva.com/](http://www.us.aveva.com/)

**ATC Nuclear****Oak Ridge, TN (Booths 511 & 513)**

ATC Nuclear is a leading global provider of customized supply chain management solutions including the Nuclear Inventory Management System (NIMS). Our Instrumentation and Control Repair and Reverse Engineering services are well known throughout the nuclear industry for providing solutions to obsolescence and equipment reliability. Additionally, ATC Nuclear's Commercial Grade Dedication and Qualification services use state-of-the-art equipment meeting ASME NQA-1 and other regulatory requirements.

**Atkins****Charlotte, NC (Booth 415)**

Atkins is one of the world's most respected design, engineering and project management consultancies. We build long-term trusted partnerships to create a world where lives are enriched through the implementation of our ideas. Our energy business is an international provider of high-end design and engineering for the oil and gas, nuclear, renewables and power sectors.

**AZZ Nuclear / AZZ | NLI / AZZ | WSI****Fort Worth, TX (Booths 312, 314 & 316)**

AZZ Nuclear is the nuclear focused business segment of AZZ incorporated (NYSE:AZZ). AZZ Nuclear combines the equipment supply capabilities of NLI and specialty welding and repair service capabilities of WSI with other AZZ product and service offerings such as isophase bus, switchgear, modular buildings and much more.

## **Barnhart** **Memphis, TN (Booth 105)**

Over the last three decades, Barnhart has built an impressive nuclear project résumé. 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** **Reston, VA (Booth 208)**

Bechtel has been a leader in the nuclear industry for more than 65 years, dating back to the 1940s. We have performed engineering and construction services on more than 150 nuclear power plants around the world and more than half of the plants in the U.S. Today, with our unmatched integrated team of nuclear experts across the entire facility lifecycle, Bechtel is the one to trust to deliver your investment. Cleaner and safer.

## **BHI Energy** **Plymouth, MA (Booth 601)**

BHI Energy is a leading provider of specialty maintenance, radiation protection and professional staffing solutions to the nuclear power industry. With more than 35 years of experience, BHI's proven approach combines strong leadership with a highly skilled technical and craft workforce to deliver these services individually, or bundled as an integrated, turnkey offering to our customers.

## **Black & Veatch** **Overland Park, KS (Booth 101)**

Black & Veatch is a leader in building critical human infrastructure in Energy, Water, Telecommunications and Government services. For nearly 70 years, we have provided full-service nuclear power planning, engineering, procurement and construction capabilities to our clients and the industry. We have the ability to provide accurate and competitive solutions that span the life cycle of your nuclear projects. Visit [www.bv.com/nuclear](http://www.bv.com/nuclear) for more information.

## **Burns & McDonnell** **Kansas City, MO (Booth 306)**

Founded in 1898, Burns & McDonnell is a full-service engineering, architecture, construction, environmental and consulting solutions firm. With the multidisciplinary experience of more than 5,000 employee-owners in offices worldwide, Burns & McDonnell plans, designs, permits, constructs and manages facilities with one mission in mind — to make our clients successful.

## **BWX Technologies, Inc.** **Lynchburg, VA (Booth 14)**

Headquartered in Lynchburg, Va., BWX Technologies, Inc. (BWXT) is a leading supplier of nuclear components and fuel to the U.S. government; provides technical, management and site services to support governments in the operation of complex facilities and environmental remediation activities; and supplies precision manufactured components and services for the commercial nuclear power industry.

## **Ceradyne, Inc., a 3M Company** **Quapaw, OK (Booth 116)**

Stable isotopes from Ceradyne, Inc., a 3M company have been helping the nuclear industry operate more efficiently and safely for nearly 30 years. From reactor criticality control to fuel and waste management, our neutron absorbing materials are helping to make nuclear power a safer and more affordable option for powering tomorrow's world. [www.3m.com/boron](http://www.3m.com/boron)

## **Certrec Corporation** **Fort Worth, TX (Booth 09)**

Founded in 1988, CERTREC is a regulatory compliance process expert that helps utilities manage the regulatory process to their advantage. With more than 1,000 cumulative years of regulatory and industry experience with the Nuclear Regulatory Commission (NRC), the Federal Energy Regulatory Commission (FERC), the North American Electric Reliability Corporation (NERC), and other Regional Entities, Certrec's Office of Licensing and Compliance, Office of NERC Compliance, Office of Assessment and Recovery, and New Plant services are used by utilities across North America.

## **CHAMPS Software, Inc.** **Crystal River, FL (Booth 02)**

CHAMPS Software, Inc. Providing Work Control, Materials Management, Procurement & Safety solutions to the Nuclear Power industry for over 40 years. Products include: CHAMPS Windows EAM, CHAMPS Web EAM and Cloud based Mobile & BI products including CHAMPS TaskView for Outage Management. [www.champsinc.com](http://www.champsinc.com)

## **Copperleaf Technologies** **Burnaby / BC / Canada (Booth 117)**

Copperleaf works with asset intensive organizations facing the challenges of aging infrastructure. Our Asset Investment Planning and Management (AIPM) solutions help customers integrate planning, analysis, approval, and execution so that they can make value-based, risk-informed asset investment decisions.

**Crane Nuclear Inc.**  
**Kennesaw, GA (Booth 404)**

CRANE 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™, Viper™, and Votes® Infinity) and reliable services provide complete valve solutions that help ensure nuclear plant safety through the reliable performance of motor-operated valves, air-operated valves, and checkvalves. [www.cranenuclear.com](http://www.cranenuclear.com)

**Curtiss-Wright Corporation**  
**Brea, CA (Booth 402)**

Curtiss-Wright Nuclear Division offers a comprehensive range of products and services that support the global nuclear power industry. Our business units provide unmatched knowledge, experience and technical superiority, making our division ready and able to meet the demands of existing operating reactors, as well as future plants. We provide advanced technologies and analytics in support of extended plant life, equipment reliability, reduced dose and maintenance as well as proactive solutions to critical plant obsolescence issues.

**DataGlance**  
**Fremont, CA (Booth 104)**

DataGlance, Inc. develops products and services for Enterprise Data Management that support electronic Work Package (eWP), data conversion, data migration, data archiving, Web services, and document generation.

Our unique experience and skill sets with nuclear work management processes and data management has positioned DataGlance as the leading commercial nuclear power eWP solution provider.

**Day & Zimmermann**  
**Lancaster, PA (Booth 405)**

Day & Zimmermann is the #1 ranked O&M contractor in the power industry. We are the leading provider of maintenance, modifications, and major projects to the nation's nuclear power generation fleet.

Specialty services include condensers, valves, turbines, scaffolding, asbestos abatement & insulation, radiological protection, security screening, and professional & technical staffing.

**Diakont**  
**San Diego, CA (Booth 506)**

Diakont is a full-cycle engineering, manufacturing, and service company that provides high-tech solutions which enhance the safety and economy of the nuclear power and energy industries. Diakont is a leading supplier of radiation-tolerant camera systems, nuclear robotics, and pipeline inspection robotics. Diakont products are utilized on power plants worldwide.

**Doosan HF Controls Corp.**  
**Carrollton, TX (Booth 508)**

Doosan HF Controls is headquartered in Carrollton Texas USA is an I&C solutions provider that has supplied and serviced Instrumentation and Control (I&C) systems to American and International clients for over 50 years across the fossil and nuclear markets. Doosan HF Controls has become a major nuclear supplier as it expands its business portfolio. For more information: 1-866-501-9954 [www.hfcontrols.com](http://www.hfcontrols.com)

**DRS Consolidated Controls, Inc.**  
**Danbury, CT (Booth 207)**

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 nonsafety I&C systems for commercial nuclear power plants and the U.S. Navy.

**Electrical Builders, Inc. (EBI)**  
**St. Cloud, MN (Booth 07)**

Installs, cleans, repairs, designs and refurbishes isolated phase and non-seg bus systems (all current AND obsolete OEM designs). Since 1974, we have successfully completed over 3300 projects, including over 65% of the domestic nuclear fleet. We have never missed a deadline, never a warranty claim and have 6+ years safe.

**ENERCON**  
**Kennesaw, GA (Booth 305)**

ENERCON is ranked as one of the largest providers of engineering design and environmental services to the U.S. Nuclear Industry. Our Engineer of Choice contracts with over 90% of the operating U.S. nuclear power plants allows us to efficiently provide high quality services for both large and small scope projects.

**Energy Steel & Supply Company**  
**Lapeer, MI (Booth 110)**

Energy Steel is the supplier of choice for fabricated and machine components to the nuclear industry. We maintain the most stringent qualifications including ASME (N, NA, NPT, NS, and U) certificates. We offer a solution to obsolescence through our network of exclusive partnerships with OEMs as well as our Reverse Engineering capabilities. No matter the size of the project, Energy Steel is dedicated to providing our customer with a quality solution.

**EnergySolutions**  
**Oak Ridge, TN (Booth 507)**

EnergySolutions is an international nuclear services company with operations and facilities in the United States, Canada, Asia and United Kingdom. Our more than 4,000 professionals provide integrated services and solutions to the nuclear industry. EnergySolutions is the global leader in the safe recycling, processing and disposal of nuclear material.

# Exhibitors

## **Envirovac Holdings, LLC**

**Garden City, GA (Booths 107 & 109)**

EnviroVac Industrial Cleaning and Environmental Services was founded in 1999 and is headquartered in Savannah, GA. EnviroVac is a premier provider of industrial cleaning services with projects ranging from routine daily industrial plant maintenance utilizing hydroblasting equipment, vacuum trucks, and chemical cleaning to planned facility maintenance outages.

## **EPM, Inc.**

**Framingham, MA (Booth 412)**

EPM is a proven leader in Fire Safe Shutdown Analysis, Fire PRA, and Fire Modeling for 35 years in US and abroad. Our engineering staff provides expertise in Electrical Analysis, Regulatory Compliance, Design Certification and Licensing Bases Reconstitution. We offer Software Tools for Automated Safe Shutdown Analysis, Cable and Raceway Management, Cable Aging and EQ Analysis. Our team provides a one stop shop for all accident and fire safety analysis services.

## **EXCEL Services Corporation**

**Rockville, MD (Booths 04, 05 & 06)**

Excel Services Corporation specializes in providing operations, engineering, safety and regulatory services for energy and environmental projects worldwide. These specialized services include: License Renewal, Power Uprate, 24 Month Fuel Cycle Conversions, ITS Conversions, QA Solutions, Training, Spent Fuel Storage Licensing, New Plant Site Permitting and Combined License Support. EXCEL has worked with almost every nuclear plant and most nuclear facilities in the U.S., and has worked with many international facilities and organizations for 30 years.

## **Florida International University**

**Miami, FL (Booth 510)**

Since 1995, FIU-ARC has supported DOE's environmental restoration mission by conducting applied research in key technical areas: Deactivation & Decommissioning, Waste Processing, and Soil & Groundwater. In 2007, the DOE-FIU Science & Technology Workforce Development Program was established to train and mentor minority STEM students.

## **Flowserve Corporation**

**Charlotte, NC (Booths 408 & 410)**

Flowserve has been a pioneer in pump and seal technology since the beginning of the nuclear power industry. Flowserve has introduced new offerings such as system and equipment assessments including the use of wireless technology while at the same time supporting existing sites with OEM parts, repairs, upgrades, engineering, on-site technical service, turnkeys and complete units. We also support new construction with the same products and services. For more information, please contact Jim Cook at 1-845-548-9275.

## **Garney Construction**

**Winter Garden, FL (Booth 106)**

Garney Construction is a 100% employee owned company with 54 years of wide-ranging experience installing water and wastewater pipelines and treatment facilities servicing the public, private and industrial markets.

## **G.D.Barri & Associates, Inc.**

**Peoria, AZ (Booth 515)**

G.D. Barri & Associates is celebrating 25 years of service to the nuclear industry providing power plants and DOE sites with over 9MM hours of professional, technical, and union craft labor. Please call Georgia Barri or Rick Duff at 623-773-0410 to learn more about our operations, maintenance, and outage programs.

## **GE Hitachi Nuclear Energy**

**Wilmington, NC (Booth 10)**

GE Hitachi Nuclear Energy (GEH) is a world-leading provider of advanced reactor technology, nuclear fuel and services. GEH is a global nuclear alliance created by GE and Hitachi to serve the global nuclear industry. The alliance offers customers around the world the technological leadership required to effectively enhance reactor performance, power output and safety.

## **General Dynamics Information Technology**

**Chesapeake, VA (Booth 413)**

General Dynamics Information Technology develops state-of-the-art, game-based virtual environments to meet the complex, unique operating challenges of the nuclear industry. We develop solutions for any operational scenario: daily operations, outage maintenance, health physics, security, or emergency response in the most impactful delivery manner possible. Through continued innovation, we bring cost-effective training to the nuclear industry. Find out more at [www.gdit.com](http://www.gdit.com)

## **GLSEQ, LLC**

**Huntsville, AL (Booth 112)**

GLSEQ, LLC provides a Severe Accident Hydrogen Monitoring System (HCMS).

HCMS measures hydrogen in containment and outside of containment using intrinsically smart sensors that convert the combustible gas directly to an electronic signal. HCMS is part of the GLS Severe Accident Instrumentation Line (SAIL) of Nuclear Grade Sensors for Design Basis Events and Beyond Design Basis Events.

## **Goodnight Consulting**

**Ashburn, VA (Booth 514)**

Goodnight Consulting serves the global power industry and specializes in nuclear power generation issues, helping our clients optimize human capital. We provide staffing, process, and organizational analyses, as well as workforce planning, cultural assessments, and HR services. Our clients include public and investor-owned utilities, vendors, and institutional organizations.



**Howden North America**  
**Columbia, SC (Booth 516)**

Howden North America Inc. (HNA) 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. <http://www.howden.com>

**Idaho National Laboratory**  
**Idaho Falls, ID (Booth 204)**

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.

**Invensys / Schneider**  
**Carlsbad, CA (Booth 08)**

Invensys is now a part of Schneider Electric. Invensys Nuclear will now utilize the brands available from both Invensys and Schneider Electric to offer fully integrated Digital Upgrade I&C Solutions to the Global Nuclear Power Industry to maximize the availability and utilization of nuclear plant assets. The Invensys/Schneider booth will be displaying the approved 1E TRICON V10 and the latest advancements in Turbine Control and Digital Feedwater Upgrade technology.

**James C. White Company, Inc.**  
**Greenville, SC (Booth 605)**

The manufacturer of TUBETRACK® and CABLE-RACE®, Complete Support Systems for Tubes and Cables that connect instruments and controls, including Solid Stainless Steel Tube and Pipe Clamps. Offers custom machining and fabrication to customer specifications. Established in 1954, serving the nuclear industry since the 1970's under the Company's nuclear QA Program (10CFR50 Appendix B, ANSI N45.2, ASME NQA-1, ASME III NCA-3800).

James C. White Company, Inc.  
 10 Halton Road, Greenville, SC 29607  
 800-421-9410  
[NuclearSales@JCWCO.com](mailto:NuclearSales@JCWCO.com)  
[www.JCWCO.com](http://www.JCWCO.com)

**Joseph Oat Corporation**  
**Camden, NJ (Booth 309)**

Joseph Oat is a well renowned OEM designer and fabricator of Safety-Related products for the Nuclear Power Industry. We have supplied critical heat exchangers, pressure vessels and tanks, spent fuel canisters, and NQA-1 component fabrications to nuclear utility customers worldwide. We have continuously held an 'N' Stamp certification since 1966 and maintain an excellent reputation in the industry. We Make Metal Work®.

**Kalsi Engineering**  
**Sugar Land, TX (Booth 216)**

Kalsi Engineering, Inc. was founded in 1978 and provides engineering services including research and development, design, analysis, and testing of mechanical equipment and structures. Our clients include nuclear utilities, industry groups, and government agencies. The staff at our facilities in Sugar Land, Texas and Charlotte, North Carolina has an outstanding background and record of accomplishments in a wide range of nuclear power plant applications.

**Kiewit Power Nuclear**  
**Lenexa, KS (Booth 111)**

Kiewit is one of the Top 3 Contractors in North America and recognized as one of the "Top 100 Companies to Work For." Kiewit Power Nuclear (KPN) is defined by that spirit of excellence and positioned as a premier provider of nuclear services including decommissioning, full EPC services and maintenance/modifications.

**Kinectrics**  
**Toronto, Ontario (Booths 414 & 416)**

Kinectrics offers specialized testing facilities and advanced expertise in life cycle management for nuclear, including equipment and components, genuine replacement parts, inspection and maintenance systems and environmental technologies. Our US facility provides qualified local support for EQ, CGD and other technical services for new build and the existing operating fleet.

**KnightHawk Engineering**  
**Houston, TX (Booth 302)**

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 have our own in house ISO 17025: 2005 Accredited Materials Lab.

**Konecranes Nuclear Equipment & Services**  
**New Berlin, WI (Booth 512)**

As the world leader in the production and service of nuclear cranes and equipment, Konecranes engineers, manufacturers, and maintains lifting equipment for every step of nuclear power operation, from starting and shutting down reactors to handling new and spent fuel to adjusting turbines or conducting plant maintenance.

**KSB, Inc.**  
**Henrico, VA (Booth 614)**

KSB has supplied over 150,000 nuclear pumps and valves to over 120 nuclear power plants worldwide. KSB's authorization to use the ASME stamps N, NPT, and NS for Class 1, 2, and 3 on pumps and valves reflects our commitment, qualification, and international recognition as a world leading supplier of components for nuclear power plant applications.

## **L-3 MAPPS**

### **Montreal, Quebec (Booth 01)**

When you're looking for increased reliability in your power plant's performance, count on L-3 MAPPS' experience to get you there. Our dedication to true-to-life simulators ensures that your personnel have the knowledge required to safely and efficiently operate your plant. Providing more than just training devices, our simulator solutions - powered by L-3 MAPPS' unparalleled Orchid™ suite of simulation products will elevate your engineering team to new heights in addressing plant design issues, procedural deficiencies and reliability improvements.

## **Lockheed Martin**

### **Archbald, PA (Booth 301)**

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 112,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's net sales for 2014 were \$45.6 billion.

## **Mesa Associates Inc.**

### **Madison, AL (Booth 600)**

Mesa is a full-service engineering, procurement, and construction management firm experienced in nuclear power generation projects. Mesa provides BOP multidiscipline engineering support specializing in plant modifications, upgrades, and fast-track projects. Mesa's staff is qualified and experienced in developing engineering/design modification documentation, 10 CFR 50.59 evaluations, and FSAR review/updates. Our approved/proven Appendix B QA and Equipment Qualification/Dedication programs are instrumental to our project delivery success.

## **Mitsubishi Electric Power Products, Inc.**

### **Warrendale, PA (Booth 13)**

Mitsubishi Electric Corporation (MELCO) is a world leader in designing, manufacturing and implementing advanced nuclear power plant control solutions, with more than 30 years of experience and plant-wide digital control systems installed in over twenty operating nuclear power reactors worldwide.

## **Mitsubishi Nuclear Energy Systems, Inc.**

### **Charlotte, NC (Booth 504)**

Mitsubishi Nuclear Energy Systems, Inc. is a wholly-owned subsidiary of Mitsubishi Heavy Industries, Ltd. (MHI) [TKY:7011], one of the world's leading heavy machinery manufacturers. MNES supplies nuclear technologies and major reactor replacement components for operating nuclear power plants in the United States. In 2006, MNES introduced the US-APWR, the world's most advanced pressurized water reactor design, to U.S. utilities. For more information, please visit [www.mnes-us.com](http://www.mnes-us.com) and [www.mhi.co.jp/en/](http://www.mhi.co.jp/en/)

## **National Technical Systems (NTS)**

### **Huntsville, AL (Booth 304)**

NTS provides test, inspection and certification services to help clients build better, stronger, safer, more reliable products. Our engineers and technicians serve a wide range of industries such as aerospace, defense, telecom and energy. With a nationwide network of laboratories, we bring a unified solution to a global market.

## **New York Blower Company**

### **Willowbrook, IL (Booth 212)**

The New York Blower Company and SSM Industries have teamed together to provide filtration decommissioning skids to the nuclear industry. New York Blower is an industry leader in manufacturing premium-quality, engineered fans and blowers to the industrial, OEM and nuclear marketplace. SSM Industries, Inc. (formally Schneider Sheetmetal), is the largest Safety Related HVAC Designer-Fabricator-Installer in the United States with over 40 years continuous Nuclear Experience.

## **Nuclear News**

### **LaGrange Park, IL (Booth 215)**

With more than 10,000 readers throughout 59 countries, Nuclear News is recognized as the flagship trade publication serving the worldwide nuclear power industry. Monthly editorial coverage includes plant operations, maintenance, security, international developments, waste management, fuel, and industry. Since the magazine accepted its first advertisement in 1960, hundreds of companies have relied on Nuclear News to promote their products, services, and employment opportunities.

Contact: Jeff Mosses, Sales Manager

Phone: 1-800-NUC-NEWS • E-mail: [advertising@ans.org](mailto:advertising@ans.org)

Web: [www.ans.org/NN](http://www.ans.org/NN)

## **Nuclear Plant Journal**

### **Downers Grove, IL (Booth 411)**

Nuclear Plant Journal, a US publication now in its 33rd year, provides technical information exchange among managers and engineers in nuclear power industry worldwide. Circulation is 12,000 (BPA Worldwide audited). The Journal is published six-times per year and reaches every country in the world with a civilian nuclear energy program. The Journal is published in digital as well as printed version. The Products & Services Directory is published yearly in December. Online: [nuclearPlantJournal.com](http://nuclearPlantJournal.com); [facebook.com/nuclearplantjournal](https://www.facebook.com/nuclearplantjournal); [youtube.com/user/nuclearplantjournal](https://www.youtube.com/user/nuclearplantjournal); [twitter.com/npjtweet](https://twitter.com/npjtweet). Representatives: Newal Agnihotri and Michelle Gaylord.

## **PSC**

### **East Chicago, IN (Booths 211 & 213)**

An engineering innovator since 1986, PSC develops turnkey solutions for nuclear power plants. We leverage our expertise in heavy rigging, fabrication, field implementation and quality assurance to solve our client's toughest engineering challenges — safely and efficiently. Our seasoned engineers and skilled craftsmen help clients overcome workforce shortages. PSC's utility roster includes Entergy, Exelon, Florida Power & Light and more.

**Radiation Protection Systems, Inc.****Groton, CT (Booth 205)**

Radiation Protection Systems, Inc. has three very distinct product lines: VENTILATION, SHIELDING and CONTAINMENT. We offer equipment and custom integrated systems that make working in a radiological or hazardous workplace safer, easier, and more efficient. Today we continue to apply our sophisticated techniques and engineering expertise to enhance ALARA programs.

**Red Wolf Associates****Cary, NC (Booth 214)**

Red Wolf Associates is a specialty engineering firm providing analysis and modeling services to the commercial nuclear power industry, with particular expertise in thermal-hydraulics, HVAC, Environmental Qualification (EQ), mechanical engineering, dose analysis and support for fire protection and PRA groups.

**ReNuke Services, Inc.****Oak Ridge, TN (Booth 12)**

ReNuke brings innovative project management and staffing programs to commercial and government nuclear power markets. ReNuke's service offerings are supported by leadership with over 300 years of collective nuclear industry experience.

We are technically qualified in project management, project controls, contract administration, engineering, licensing/regulatory affairs, operations, outage management, procurement, health physics, decommissioning, transportation, and quality assurance. ReNuke provides direct, turnkey project performance solutions for client's end of fuel cycle and radioactive waste management challenges.

**Rolls-Royce****Huntsville, AL (Booth 307)**

Rolls-Royce provides a broad range of commercial nuclear expertise with a focus on providing nuclear utilities with integrated, longterm support solutions and services. It's newly created Nuclear Services business provides a comprehensive suite of services and fleet solutions including remote tool design and delivery; engineering and obsolescence management services and software solutions, plant monitoring solutions; and an N-stamp custom design / build capability.

**RSCC Wire & Cable, LLC****East Granby, CT (Booth 608)**

RSCC Wire & Cable, LLC is the premier full line manufacturer of Nuclear Safety cables to the nuclear industry worldwide. Our flagship Firewall III Low Voltage Control, Power & Instrumentation Cables are the proven cables for the Nuclear Industry. Firewall III is qualified for 60 year life and does not require any further evaluation by existing users. [www.rsccnuclearcable.com](http://www.rsccnuclearcable.com)

**S&ME, Inc.****Raleigh, NC (Booth 103)**

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 and contractors 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 35 offices across the U.S., our goal is to provide the engineering and scientific services our clients require to achieve success.

**Saulsbury Industries****Odessa, TX (Booth 606)**

Saulsbury Industries a full-service (EPCM) contractor providing electrical and instrumentation, capital projects, construction, maintenance, and engineering services to a diversity of markets. Its Nuclear Division offers a range of services including; outage maintenance, life cycle modifications, regulatory and security upgrades, and support services. One team, customer centric, people focused, providing cost predictable innovative solutions.

**SCHOTT Electronic Packaging****Southbridge, MA (Booth 206)**

SCHOTT Electronic Packaging produces Electrical Penetration Assemblies (EPA's) for nuclear power plants and submarines. SCHOTT Electronic Packaging is a leading manufacturer of high quality hermetic housings and components for the reliable, long-term protection of sensitive electronics. Core technologies include glass-to-metal and ceramic-to-metal sealing, thermal sensing components and cutting-edge specialty glass competencies.

**Score Atlanta Inc.****Kennesaw, GA (Booth 610)**

Score Atlanta supplies valve condition monitoring systems and services for equipment used in power, oil and gas and process industries worldwide. Score Atlanta products include the V-Map on line monitoring system for valves, the MIDAS Meter valve leakage monitoring system and acoustic emissions sensors and data acquisition hardware for monitoring piping, pressure vessels and other steel structures. Score Atlanta provides monitoring services that assist customers with interpretation of test results, maintenance planning and engineering services.

**SNC-Lavalin****Mississauga, ON (Booth 509)**

SNC-Lavalin's Nuclear team provides engineering, procurement and construction management expertise to deliver nuclear technology products and full-service solutions to utilities around the globe. In addition to life extension projects, and both NSP and BOP projects, we offer a catalogue of engineering and field services, including civil, reactor, mechanical, process and equipment engineering and an extensive range of plant life management and steam generator programs.



## **SPX FLOW and SPX Power & Energy**

**Charlotte, NC (Booths 313 & 315)**

SPX, an OEM supplier for over 50 years to the nuclear industry are involved in enhancing safety and reliability with proven capability in the supply of pumps, valves, heat exchangers, filtration and dehydration equipment for new build and retrofit projects. We have detailed knowledge and experience with regulatory and qualification needs. SPX manufactures to Class 1, Class 2 and Class 3 and has ASME 'N' Stamp, 10CFR50 Appendix B Program, RCC-M, RCC-MX and HAF604 accreditation.

## **Structural Group**

**Hanover, MD (Booth 102)**

With member companies dating back to 1902, Structural Group is firmly committed to its ongoing mission of making new and existing structures stronger and last longer. We provide specialty contracting services through our construction companies, and state-of-the-art proprietary products and engineering support services through STRUCTURAL TECHNOLOGIES.

## **Structural Integrity Associates, Inc.**

**Huntersville, NC (Booth 603)**

Structural Integrity Associates, Inc. is an internationally recognized leader of engineering and inspection services for the prevention and control of structural and mechanical failures. For more than 30 years, Structural Integrity has been a trusted partner to the nuclear energy industry, proven in applications ranging from R&D to engineering, metallurgy, and non-destructive testing.

## **Sulzer Pumps**

**Chattanooga, TN (Booth 604)**

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.

## **SWI Systems LLC (SWI)**

**Ontario, Canada (Booth 108)**

For over 35 years, SWI has provided the nuclear industry with high quality software products, turnkey solutions, and consulting services. Our CASSITM Work Management Reporting product delivers key indicators to stakeholders in order to support the continuous improvement of maintenance activities essential to power generators and utilities. For more information visit us at [www.swi.com](http://www.swi.com)

## **System One**

**Pittsburgh, PA (Booth 209)**

For more than 30 years, System One has delivered a full suite of staff augmentation, managed staffing and quality solutions to power producers, service providers and OEMs in the nuclear energy sector. We support the full production lifecycle, from licensing and construction to operations and maintenance. View our capabilities at [www.systemoneservices.com](http://www.systemoneservices.com).

## **Teledyne Brown Engineering**

**Huntsville, AL (Booth 114)**

Teledyne Brown Engineering, Inc. has supported the nuclear industry for over 45 years and is a recognized leader in providing innovative systems engineering, cutting edge technology, and advanced manufacturing solutions. Our strengths in both engineering and manufacturing distinguish us from our competitors and allow us to provide extensive, precise solutions.

## **Thermo Fisher Scientific**

**Madison, WI (Booth 210)**

Thermo Fisher Scientific is a leading provider of Class 1E qualified safety-related Nuclear Instrumentation systems and services for nuclear power plants world-wide. We manufacture neutron flux monitoring systems for all ranges of reactor power. Our systems demonstrate high immunity to EMI and noise and are meet U.S. NRC RG 1.97 Post Accident Monitoring requirements. The company also offers radiation measurement systems, personnel dosimetry, data recorders, and radiation hardened cameras.

## **Toshiba America Energy Systems Corporation**

**Charlotte, NC (Booth 503)**

Toshiba America Energy Systems (TAES) Corporation's mission is to provide North American power generation customers with advanced technologies and services to enhance safety, efficiency and reliable operations. Through these efforts, TAES will promote strong and sustainable growth of Toshiba Group's power generation business throughout the world. TAES will focus on its Nuclear, Thermal and Hydroelectric power businesses with systematic design, procurement and construction expertise as well as service and maintenance for the North American operating fleet.

## **TransWare Enterprises Inc.**

**Sycamore, IL (Booth 607)**

TransWare Enterprises Inc. are experts in nuclear consulting, specializing in radiation transport and used fuel services. With NRC-approved methodologies, an NQA-1 / 10CFR50 App. B compliant QA program, and a long list of client success stories, TransWare is ready to help you manage your fleet and prepare for the future.

## **Ultra Electronics Nuclear Control Systems**

**Dallas, TX (Booth 03)**

Ultra Electronics provides high integrity safety and security products to the nuclear industry. Our strength is built on multiple safety layers including Class 1E safety systems, sensors, radiation monitoring, health physics, and emergency management. We offer a complete portfolio of nuclear services including obsolescence and lifetime management; independent assessment; and repair, refurbishment, and reverse engineering.



### **UniTech Services Group** **Springfield, MA (Booth 303)**

UniTech Services Group, Inc. is the world's largest supplier of nuclear protective clothing and accessories. Our nuclear licensed decontamination facilities throughout the US and Europe provide the following services: radiological laundering of protective clothing, decontamination and testing of respirators, and the decontamination of tools & equipment (scaffolding, hand tools, portable HEPA vacuums, etc.). Our products and services are designed to provide our customers cost effective protection for their workers with minimal generation of radioactive waste.

### **United Controls International (UCI)** **Norcross, GA (Booth 618)**

United Controls International (UCI) is a leading provider of auxiliary nuclear power services to a global clientele. We work with original equipment manufacturers, utilities, engineering and architecture firms, and government agencies, filling needs that exist throughout the process of nuclear power generation. United Controls International—The Quality Behind the Power.

### **ValvTechnologies** **Houston, TX (Booth 202)**

Founded in 1987 and based in Houston, Texas, ValvTechnologies is the leading manufacturer of zero-leakage, severe service isolation valve solutions. Best known for our four-year zero-leakage guarantee, ValvTechnologies has been solving problematic valve applications for almost 30 years. ASME N & NPT Authorized with a 10CFR50 Appendix B program for safety related equipment. For more information visit our website at [www.valv.com](http://www.valv.com).

### **Waste Control Specialists** **Dallas, TX (Booth 615)**

The state-of-art Texas Compact Waste Facility (CWF) in Andrews, Texas, provides a safe, secure, permanent solution to your class A, B & C disposal needs. Owned by the state of Texas, and operated by Waste Control Specialists, the CWF is available to generators of commercial LLRW. WCS also provides solutions for disposal of Exempt waste in the WCs owned subtitle C RCRA facility. For more information please visit our website at [wcstexas.com](http://wcstexas.com).

### **Western Services Corporation** **Frederick, MD (Booth 505)**

WSC is a global simulation technology company that deploys its proprietary 3KEYSOFTWARE® Simulation Technology for nuclear training simulators and to support engineering design and commissioning of new plants in the US, Korea, China and the UAE. WSC has a vigorous market-focused R&D program and a strong commitment to customer service.

### **Westinghouse Electric Company** **Cranberry Township, PA (Booth 501)**

Westinghouse Electric Company is the only company with a single focus on nuclear energy, providing a wide range of nuclear plant products and services to utilities throughout the world. Our nearly 12,000 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.

### **William Industrial Services Group, LLC** **Tucker, GA (Booth 203)**

Williams is a family of 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, founded in 1958, has been safely upgrading, uprating, maintaining, modifying, and improving the material condition of commercial nuclear power plants in the United States since 1970.

### **Zachry Nuclear Engineering, Inc.** **Stonington, CT (Booth 201)**

Zachry Nuclear Engineering, Inc. and our Numerical Applications Division is a full service engineering firm that provides Engineering, Analysis, Design, and Project Management services to the Nuclear Power Industry. Zachry's 13 design centers offer the services of experienced mechanical, electrical, controls, civil/structural engineers and designers who are skilled in power plant systems, engineering analysis, including GOTHIC™, RELAP, RETRAN, RADTRAD-NAI™, and CentralStor™, as well as modification package development. For more information please visit [www.ZachryGroup.com](http://www.ZachryGroup.com) and [www.numerical.com](http://www.numerical.com).

### **Zuuk International Inc.** **N Charleston, SC (Booth 611)**

Zuuk Inspection, a division of Zuuk International, has an ASME NQA-1 and 10CFR50 Appendix B compliant Nondestructive Testing and Inspection program. We provide support to spent fuel storage programs, new construction, maintenance, refurbishment and life management. In addition to the traditional nondestructive testing methods such as: Ultrasonic Testing (UT), Magnetic Particle Testing (MT), Liquid Dye Penetrant Testing (PT) and Visual Testing (VT), Zuuk Inspection specializes in Phased Array Ultrasonic Testing (PAUT). [www.zuukinspection.com](http://www.zuukinspection.com)



# ANS Conference

2015 Utility Working Conference and Vendor Technology Expo

*Our most sincere thanks to the following contributors for their support of the 2015 UWC Golf Tournament*



*Golf Tournament Luncheon*



*Golf Tournament Breakfast*

YOUR CRITICAL LIFT EXPERTS



*3rd Hole*



*5th Hole*



*6th Hole*



*13th Hole*



*1st Hole*



*10th Hole*



*7th Hole*



*2nd & 9th Holes*



*Beverage Cart*



*Beverage Cart*



*Beverage Cart*



**WOLVERINE**  
FIRE PROTECTION CO.  
*Beverage Cart*

## Ocean Links Golf Course and Schedule

The shuttle will pick up from the main hotel lobby between 6:30-7:45 a.m. Dropping off for breakfast from 6:30-7:45 a.m. at the Marsh View Bar and Terrace.

Check in at the UWC Golf Registration desk to receive your foursome assignment and other materials

The shuttle will pick-up from the golf course and return to the hotel from 12:30-1:30 p.m. The Awards Luncheon will take place at the hotel in Cumberland BC.



Winding along a coastal Atlantic dune ridge, Ocean Link #4, #5, #6, #15 and #16 provide golfers with five oceanfront golf holes. The fairways and greens are parallel to the beach of Amelia Island and meander through a unique coastal maritime hammock. Named by Golf for Women as one of the “50 Best Courses for Women,” this close proximity to the ocean and the ever-changing sea breeze provide the golfer with exhilarating views and intriguing play.



Ocean Links has 10 holes that feature lagoons and marsh wetlands, in addition to concluding with a par three whose green is placed strategically in the waters of Red Maple Lake. The course winds through six miles of the natural sand dunes and seaside terrain that make Amelia Island so special. It can be said that this course offers as much a nature tour as a round of golf. The course yardage of 6,300 is somewhat deceiving since small greens, narrow fairways and prevailing winds make the course play much longer. At par 70, this 18-hole combination provides a challenge to golfers of all levels.

# We've gone mobile!

Scan to Download



Download the UWC mobile app, your “go-to” resource for the most up-to-date information while on site.

Scan the QR Code and use redemption code **“uwc2015”** or visit your app store and search for **“2015 UWC”** to download.







# ANS Meetings

## **NURETH-16**

16th International Topical  
Meeting on Nuclear Reactor  
Thermal Hydraulics  
AUG 30-SEP 4, 2015  
Chicago, IL

## **ICNC 2015**

International Conference on  
Nuclear Criticality Safety  
SEP 13-17, 2015  
Charlotte, NC

## **ANS Winter Meeting and Nuclear Technology Expo**

NOV 8-12, 2015  
Washington, DC

## **Student Conference 2016**

MAR 31- APR 3, 2016  
Madison, WI

## **ICAPP 2016**

2016 International Congress on  
Advances in Nuclear Power Plants  
APR 17-20, 2016  
San Francisco, CA

## **TRITIUM 2016**

11th International Conference on  
Tritium Science & Technology  
APR 17-22, 2016  
Charleston, SC

## **PHYSOR 2016**

MAY 1-5, 2016  
Sun Valley, ID

## **ANS Annual Meeting**

JUN 12-16, 2016  
New Orleans, LA

## **D&RS 2016**

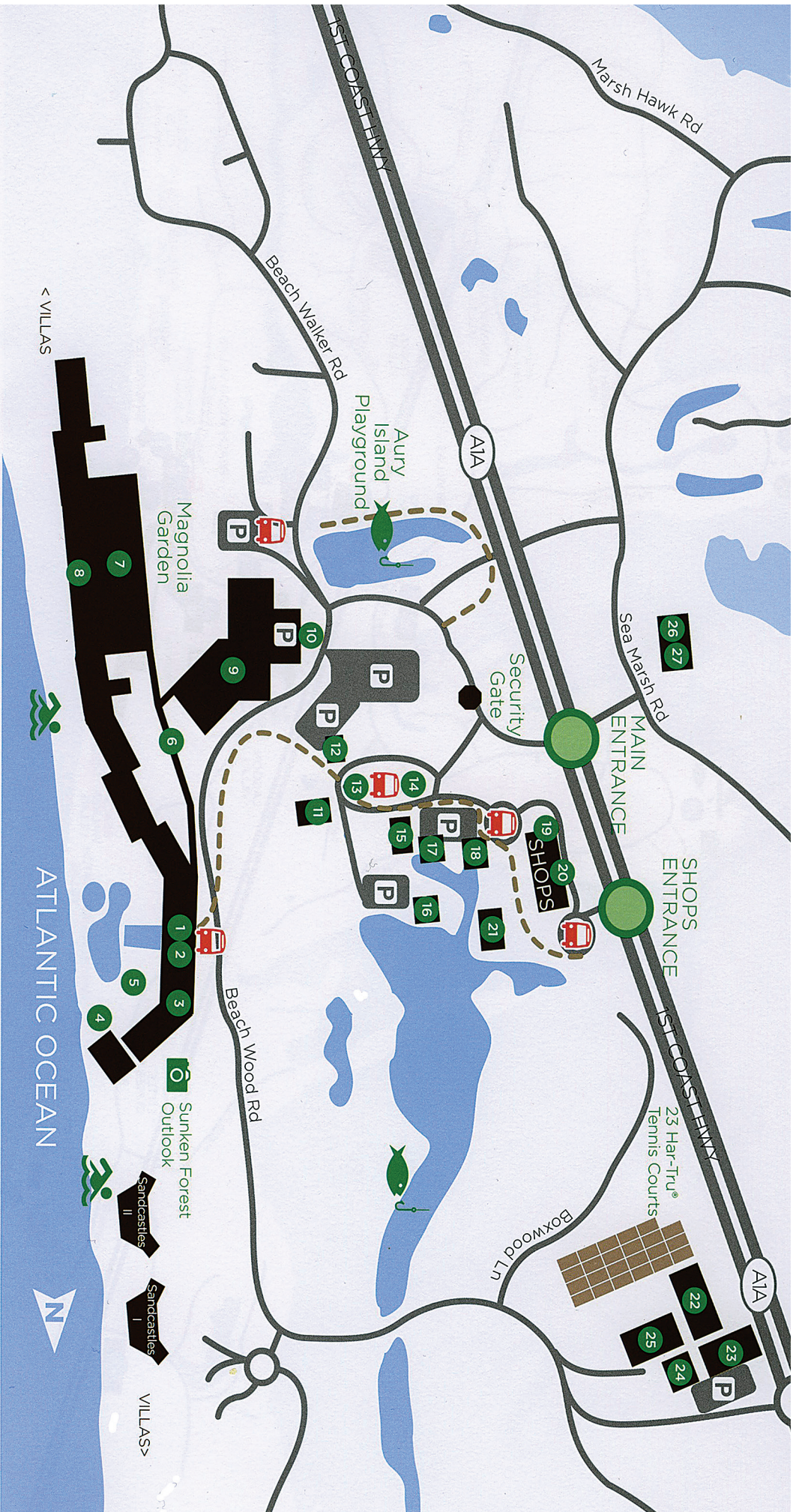
Decommissioning and  
Remote Systems  
JUL 31-AUG 4, 2016  
Pittsburgh, PA

## **UWC**

Utility Working Conference and  
Vendor Technology Expo  
AUG 14-17, 2016  
Amelia Island, FL

Get more details at [ANS.org](http://ANS.org)





**LANDMARKS**

- ① Hotel Lobby
- ③ OceanSide Wing
- ⑥ Guest Breezeway
- ⑦ Sunrise Wing
- ⑩ Parking Garage
- ⑫ Real Estate
- ⑬ Plantation Chapel

**RESTAURANTS**

- ② Seaglass
- ④ OceanSide

**MEETINGS**

- ⑧ Sunrise Café
- ⑮ Falcon's Nest
- ⑲ Natural Slice
- ⑳ Marché Burette
- ⑳ PLAE
- ㉑ Verandah
- ㉒ Marsh View Bar & Grill
- ⑨ Conference Center
- ㉓ Racquet Park Conference Center

**RECREATION & ACTIVITIES**

- ⑤ Pools
- ⑪ Nature Center
- ⑮ Heron's Cove Adventure Golf
- ⑭ Canopy Park
- ⑰ Amelia's Wheels
- ⑱ The Spa & Salon
- ㉒ Health & Fitness Center
- ㉓ Tennis Center & Pro Shop
- ⑫ Golf
- Oak Marsh Golf Course
- Ocean Links Golf Course
- Omni Alp Golf Academy

**MAP ICONS INDICATE:**

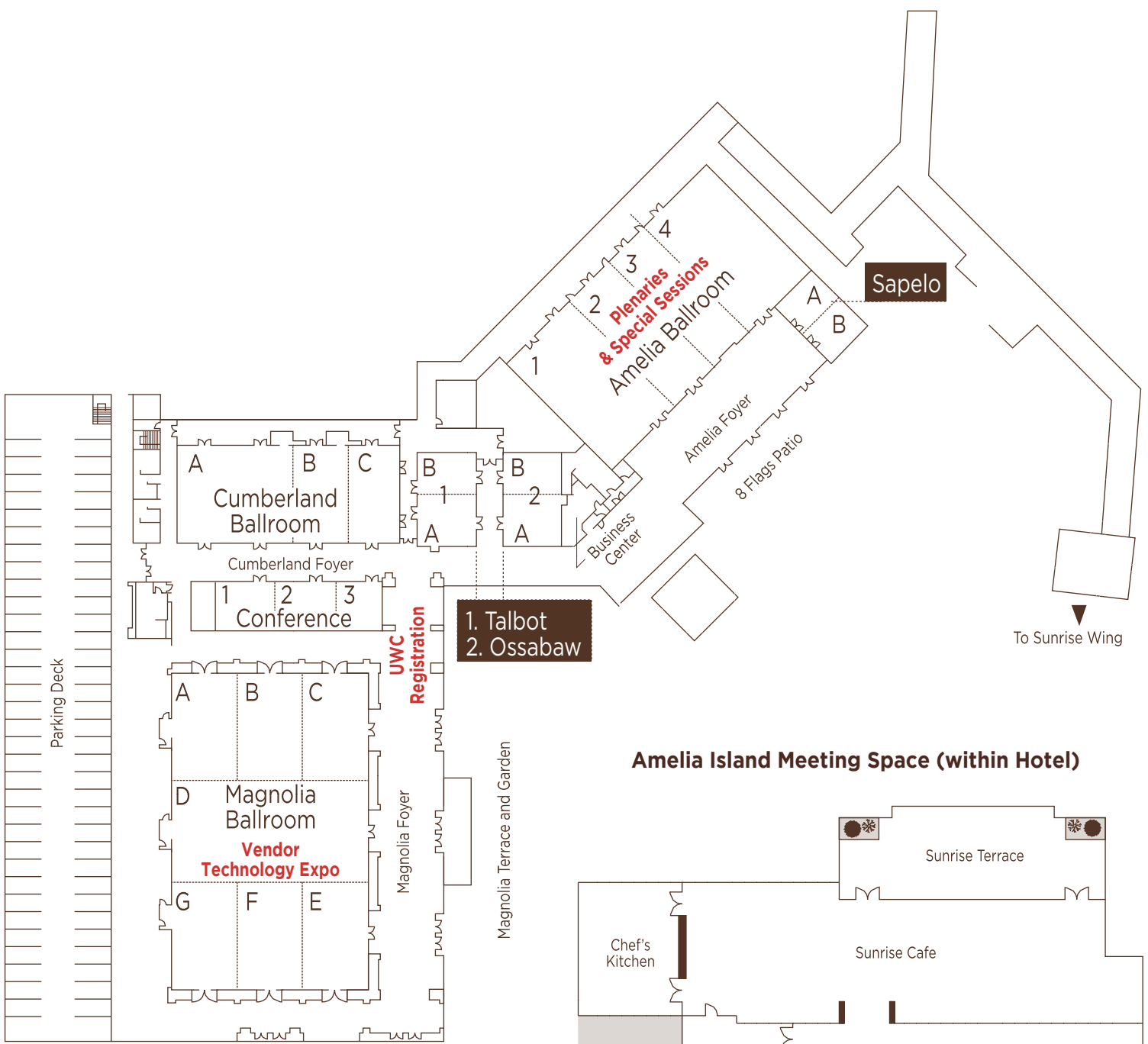
- Roadways
- - - Pedestrian Walkway
- P Parking Lots
- ☐ Ocean/Intracoastal
- ☐ Tram Stop
- 🏖 Beach Access
- 🎣 Fishing Area
- 🌳 Nature Viewing
- 🏀 Basketball Court

**OMNI HOTELS & RESORTS**  
 amelia island plantation

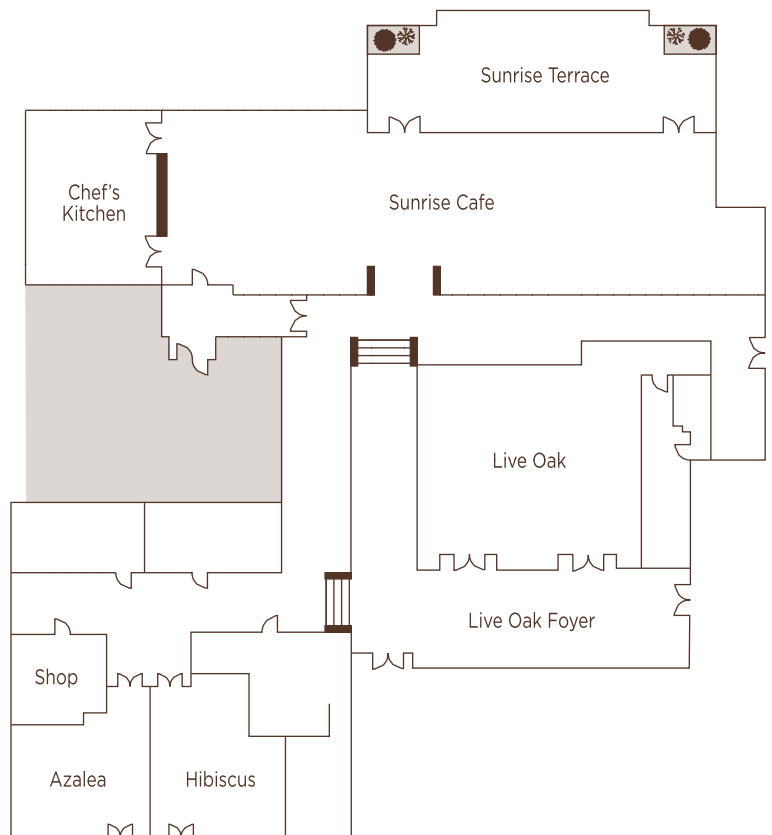


# Amelia Island Conference Center

▲ To Oceanside Wing



## Amelia Island Meeting Space (within Hotel)





# Utility Working Conference and Vendor Technology Expo

August 9-12, 2015  
Omni Amelia Island Plantation  
Amelia Island, FL



American Nuclear Society  
555 N. Kensington Ave.  
La Grange Park, IL 60526  
[www.ans.org](http://www.ans.org)