## **OFFICIAL PROGRAM**



# Utility Working Conference and Vendor Technology Expo





Amelia Island, FL



# 2016 Utility Working Conference and Vendor Technology Expo

Our most sincere thanks to our sponsors for their support!



Candesco

# Exhibit Hall Passbook

### NEW: PASSPORT TO PRIZES

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 7:30 p.m. (Raffle schedule to be posted). You must be present to win. All registered attendees are invited.

All attendees will receive a passport game card with participating sponsor logos and exhibit booth numbers. During exhibit hall hours, attendees must visit each booth to get their passbook stamped. Completed passbooks will be entered into a drawing during Tuesday's Vendor Reception for a chance at the grand prize! Passbooks must be completed and submitted by Tuesday at 7:00 pm at the Nuclear News booth 02. **Winners will be announced at 7:30 pm. See page 15 for prizes.** 



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# **Program Committee**

## Meeting Organizers

#### **GENERAL CHAIR**

Scot Greenlee, Sr Vice President, Engineering and Technical Services, *Exelon Nuclear* 

ASSISTANT GENERAL CHAIR Donald R. Hoffman, President and CEO, EXCEL Services Corporation

#### TECHNICAL PROGRAM CHAIR

Dan Doran, Director, Corporate Engineering, *Exelon Nuclear* 

### ASSISTANT TECHNICAL PROGRAM CHAIRS

Mike Spellman, Control Room Supervisor, Shearon Harris *Duke Energy* Shann Coleman, Manager, Strategic Nuclear Alliances and Variable Resources, *Duke Energy* Vince Gilbert, Chief Knowledge Officer, *EXCEL Services Corporation* 

#### INTERN & KNOWLEDGE MANAGER COORDINATOR

Vince Gilbert, Chief Knowledge Officer, EXCEL Services Corporation

GOLF CHAIR Jeff Mosses, Sales Manager, American Nuclear Society

## Track Leaders and Organizers

### **BUSINESS**

Tim Schlimpert, *MCR Performance Solutions* Donna Keck, *Duke Energy* Maria Hernandez, *Duke Energy* George Harrison, *STP Nuclear Operating Co* Adam Dow, *MCR Performance Solutions* 

## ENGINEERING & EQUIPMENT RELIABILITY

Ted Quinn, Technology Resources, ANS Past President Nally Osburn, Duke Energy Ray Herb, Southern Company Dan Redden Exelon Nuclear

## EQUIPMENT INNOVATION/SUPPLY

Marlon L. Merritt, *Duke Energy* Jordan Gillis, *ScottMadden* Greg Keller, *AZZ Nuclear* 

### EXECUTIVE

Matt Sunseri, Zeus Enterprises Sean Clark, Atkins Nuclear Solutions Rich Hall, Exelon Nuclear Kim Crowe, Duke Energy Eric Hale, CB&I

### MAINTENANCE

Bryant Hearne, *INPO* Gwen Bookheimer, *TVA* John Horn, *Southern Nuclear* Scott Ackerman, *SCANA* 

## **OPERATIONS**

Clint Six, *Exelon Nuclear* Gary Dudek, *Southern Nuclear* Darrell Perkins, *Entergy Corporation* Jerry Pierce, *Duke Energy* 

# ORGANIZATIONAL EFFECTIVENESS PERFORMANCE IMPROVEMENT TRAINING

Ludwig (T-Bow) Thibault, WD Associates, INPO (Retired) Richard Cole, AEP - Hope Consulting Pat Chambers, Talen Energy Reiko Perleberg, Southern Nuclear Becky Salvadore, Exelon Nuclear Hank Nelson, Arizona Public Service

## **REGULATORY RELATIONS**

Pareez Golub, *EXCEL Services Coporation* Trent Wertz, *Nuclear Regulatory Commission* Jack Grobe, *Exelon Nuclear* 

#### **RISK MANAGEMENT**

Gene Kelly, *Exelon Nuclear* Jim Holt, *Duke Energy* 

### WORK MANAGEMENT

Pete Arthur, *INPO* Jon Anderson, *ACA*, *Inc*. Mark Utz, *Exelon Nuclear* 

# Schedule at a Glance

## Saturday, August 13

4:00-6:00 pmExhibitor Move-In4:00-6:00 pmExhibitor Registration ONLY

## Sunday, August 14

Golf Tournament "Grab & Go" Breakfast
UWC Golf Tournament
Exhibitor Move-In
UWC Golf Tournament Awards Luncheon
Registration Hours
Opening Reception in the Vendor Technology Expo
Vendor Technology Expo

## Monday, August 15

7:00 am-4:00 pm	Registration
7:30-8:30 am	Continental Breakfast in the Vendor Technology Expo
7:30 am-4:30 pm	Vendor Technology Expo
8:30-10:00 am	Industry Awards Presentation & Opening Plenary
10:00-10:30 am	Refreshment Break in the Vendor Technology Expo
10:30 am-12:00 pm	Breakout Session #1
12:00 pm-1:30 pm	Walk-Around Lunch in the Vendor Technology Expo
1:30-3:00 pm	Breakout Session #2
3:00-3:30 pm	Refreshment Break in the Vendor Technology Expo
3:30-5:00 pm	Breakout Session #3

## Tuesday, August 16

7:00 am-5:30 pm	Registration
7:00-8:30 am	Sunrise Breakfast
7:30 am-7:30 pm	Vendor Technology Expo
8:30-10:00 am	Tuesday Plenary Session
10:00-10:30 am	Refreshment Break in the Vendor Technology Expo
10:30 am-12:00 pm	Breakout Session #4
12:00-1:30 pm	Walk-Around Lunch in the Vendor Technology Expo
1:30-3:00 pm	Breakout Session #5
3:00-3:30 pm	Refreshment Break in the Vendor Technology Expo
3:30-5:00 pm	Breakout Session #6
5:00-7:30 pm	Cocktail Reception & Vendor Raffle in the Vendor Technology Expo
7:30-10:30 pm	EXCEL Services Corporation Evening Event

## Wednesday, August 17

Registration
Continental Breakfast in the Vendor Technology Expo
Vendor Technology Expo
Wednesday Plenary Session
Refreshment Break
Breakout Session #7
UWC 2016 Wrap-up/2017 Planning Meeting

## Saturday, August 13

4:00-6:00 pmExhibitor Move-In4:00-6:00 pmExhibitor Registration Only

## Sunday, August 14

6:30-8:00 am	Golf Tournament "Grab & Go" Breakfast	Marshview Bar & Grill
8:00 am-1:30 pm	UWC Golf Tournament	Oak Marsh Golf Course
8:00 am-5:00 pm	Exhibitor Move-In	Magnolia Ballroom
1:30-3:00 pm	UWC Golf Tournament Awards Luncheon	Cumberland BC
3:00-7:00 pm	Registration	Magnolia Foyer
6:00-8:00 pm	Opening Reception in the Vendor Technology Expo	Expo Hall
6:00-8:00 pm	Vendor Technology Expo	Expo Hall

## Monday, August 15

7:00 am-4:00 pm	Registration	Magnolia Foyer
7:30-8:30 am	Continental Breakfast in the Vendor Technology Expo	Expo Hall
7:30 am-4:30 pm	Vendor Technology Expo	Expo Hall
8:30-10:00 am	Industry Awards Presentation & Opening Plenary	Amelia Ballroom
10:00-10:30 am	Refreshment Break in the Vendor Technology Expo	Expo Hall
10:30 am-12:00 pm	Breakout Session #1 • Delivering Cost Reductions from the Nuclear Promise	Cumberland A
	• Preserving the Nuclear Promise: New Reactor Experience and Advanced Reactor Initiatives	Ossabaw
	Maintaining the Old	Conference 2-3
	<ul><li>Maintaining the Old</li><li>Managing Commercial Risk</li></ul>	Conference 2-3 Amelia Ballroom
	<ul> <li>Maintaining the Old</li> <li>Managing Commercial Risk</li> <li>INPO Review of 2015 &amp; 2016 Trends in Work Management and Maintenance</li> </ul>	Conference 2-3 Amelia Ballroom Cumberland B
	<ul> <li>Maintaining the Old</li> <li>Managing Commercial Risk</li> <li>INPO Review of 2015 &amp; 2016 Trends in Work Management and Maintenance</li> <li>Crediting FLEX/Mitigating Strategies in Risk-Informed Applications</li> </ul>	Conference 2-3 Amelia Ballroom Cumberland B Talbot
	<ul> <li>Maintaining the Old</li> <li>Managing Commercial Risk</li> <li>INPO Review of 2015 &amp; 2016 Trends in Work Management and Maintenance</li> <li>Crediting FLEX/Mitigating Strategies in Risk-Informed Applications</li> <li>Moving Your Organization to the Next Performance Level</li> </ul>	Conference 2-3 Amelia Ballroom Cumberland B Talbot Cumberland C

# Monday, August 15

1:30-3:00 pm	Breakout Session #2 <ul> <li>Long Range Planning Processes and Tools</li> </ul>	Cumberland A
	Think Smart Think Digital: Delivering the Nuclear Promise through Digital I&C	Ossabaw
	Replacing the Old	Conference 2-3
	Control or Collaboration	Amelia Ballroom
	<ul> <li>Direction of Delivering the Nuclear Promise Work Management Planning and Execution Teams</li> </ul>	Cumberland B
	Operational Focus Metrics	Talbot
	Using CAP to Advance Safety, Reliability and Economic Performance	Cumberland C
	Risk Informed Approaches for Legacy Design Issues	Sapelo
3:00-3:30 pm	Refreshment Break in the Vendor Technology Expo	Expo Hall
3:30-5:00 pm	Breakout Session #3 <ul> <li>Cost Optimization and Financial Culture</li> </ul>	Cumberland A
	<ul> <li>Delivering the Nuclear Promise: Advancing Safety, Reliability, and Economic Performance (Engineering Initiatives)</li> </ul>	Ossabaw
	• Embracing the New	Conference 2-3
	<ul> <li>Project AIM, Delivering the Nuclear Promise, and Fukushima Lessons Learned</li> </ul>	Amelia Ballroom
	<ul> <li>Efficiencies gained through Maintenance and Work Management through collaboration between Efficiency Bulletins and Electronic Work Packages</li> </ul>	Cumberland B
	Operations Human Performance/Crew Performance Management	Talbot
	• The Real Benefits of Implementing CAP-001	Cumberland C
	Realism in Fire PRA Modeling	Sapelo

# Tuesday, August 16

7:00 am-5:30 pm	Registration	Magnolia Foyer
7:00-8:30 am	Sunrise Breakfast	
7:30 am-7:30 pm		
8:30-10:00 am	Tuesday Plenary Session	Amelia Ballroom
10:00-10:30 am	Refreshment Break in the Vendor Technology Expo	Expo Hall
10:30 am-12:00 pm	Breakout Session #4 • Process Analysis & Improvement	Cumberland A
	• Efficiently Realizing the Promise of Risk Informed Engineering Programs (50.69)	Ossabaw
	• Improving Efficiency and Reducing Costs through Environmental Monitoring and Emergency Response to Deliver the Nuclear Promise	Conference 2-3
	Load Following and Economic Dispatch	Amelia 2-4
	<ul> <li>Operations, Work Management, and Maintenance Working Together to Improve New Work Screening and an Expanded Role for FIN Teams</li> </ul>	Cumberland B
	The Human Performance Cutting Edge - What Works Best to Reduce Errors and Events	Cumberland C
	Effectiveness of the Backfit Process and the Committee to Review Generic Requirements	Talbot
12:00-1:30 pm	Walk-Around Lunch in the Vendor Technology Expo	Expo Hall
1:30-3:00 pm	<ul> <li>Breakout Session #5</li> <li>Optimizing Site Services: Security, Staffing, Use of Contractors</li> </ul>	Cumberland A
	Equipment Vulnerability Reduction	Ossabaw
	Working Cross Functionally to Improve Nuclear Parts Availability	Conference 2-3
	<ul> <li>Surveillance Interval Extension by NEI 04-10 R1 for Safe and Cost Effective Operation</li> </ul>	Amelia 2-4
	<ul> <li>Improving Maintenance Availability and Productivity by Effective Use of the Demand/Supply Model, T-week Process and Long Term Planning</li> </ul>	Cumberland B
	Operations Staffing	Amelia 1
	<ul> <li>Amping up Organizational Effectiveness - Case Studies &amp; Techniques from Utilities and Industry SMEs</li> </ul>	Cumberland C

# Tuesday, August 16

1:30-3:00 pm	<ul> <li>Breakout Session #5 <i>continued</i></li> <li>Digital Instrumentation and Controls, and Cyber Security Regulatory Implications</li> </ul>	Talbot
	• PRA Model Technical Adequacy vs. Perfection	Sapelo
3:00-3:30 pm	Refreshment Break in the Vendor Technology Expo	Expo Hall
3:30-5:00 pm	Breakout Session #6 • TIP Award Winners	Cumberland A
	Changes in Component Classifications and The Promise approach to Maintaining the PM Program	Cumberland B
	<ul> <li>Advanced Monitoring and Diagnostics to Reduce Cost</li> </ul>	Conference 2-3
	Removing the Roadblocks to a Risk Informed Future	Amelia 1
	ILT Candidate Success Forecasting	Ossabaw
	Organizational Performance Model – An Integrated Approach to Assessments and Performance Improvement	Cumberland C
	<ul> <li>Improving the Operability Determination Process and Resolving Low Risk Non-Compliances</li> </ul>	Talbot
5:00-7:30 pm	Vendor Evening Reception & Booth Raffle/Passport to Prizes	Expo Hall
7:30-10:30 pm	EXCEL Services Corporation Evening Event	Amelia Ballroom

## Wednesday, August 17

7:00-11:00 am	Registration	Magnolia Foyer
7:30-8:30 am	Continental Breakfast in the Vendor Technology Expo	Expo Hall
7:30-9:00 am	Vendor Technology Expo	Expo Hall
8:30-10:00 am	Wednesday Plenary Session	Amelia Ballroom
10:00-10:30 am	Refreshment Break	Amelia Foyer
10:30 am-12:00 pm	Breakout Session #7 • Knowledge Transfer and Retention	Cumberland A
	Accident Tolerant Fuel and Control Room Modernization	Conference 2-3
	Innovative Cross-Functional Engagement Using Risk Informed Initiatives to Deliver the Nuclear Promise	Amelia Ballroom
	Open Discussion & Future DNP Activities for Work Management and Maintenance	Cumberland B
	Streamlining the CPE Process	Ossabaw
	CNO Presentation - Using Training to Advance Safety, Reliability, and Economic Performance	Cumberland C
	<ul> <li>Reactor Oversight Process Issues - CDBI and EQ Pilot Inspection Results, PI&amp;R Pilot Inspection and Significance Determination Process Issues</li> </ul>	Talbot
12:00-2:00 pm	UWC 2016 Wrap-Up and 2017 Kickoff Meeting	Sapelo

## MEETING INFORMATION

Welcome to the 2016 Utility Working Conference and Technology Expo! This annual meeting of the minds consistently generates strong, practical recommendations designed to address the industry's most pressing needs. The focus of the 2016 UWC is to analyze cost drivers common to all nuclear power plants and recommend programs and processes to improve their efficiency and effectiveness and to provide innovative solutions that enable a significant reduction in operating expenses.

## **REGISTRATION HOURS**

Location: Magnolia Foyer

Sunday, August 14	3:00-7:00 pm	
Monday, August 15	7:00 am-4:00 pm	
Tuesday, August 16	7:00 am-5:30 pm	
Wednesday, August 17	7:00 am-11:00 am	

## DAILY

- All scheduled breakfasts, lunches and beverage breaks will be stationed in the Expo Hall.
- Registration Desk and speaker check-in will be located in the Magnolia Foyer.
- Tickets are required for all meals and special events (with the exception of the Vendor Raffle). Additional tickets can be purchased at the Registration Desk.

## UWC MOBILE APP

Download the 2016 UWC Mobile app, your "go-to" resource for the most up-to-date information while on site!

- Scan the QR Code or visit your app store and search for "2016 UWC" to download.
- Start using schedules, maps, to-do lists and much more!
- After downloading, be sure to "check-in" as an attendee on the app so others can connect with you.



## UWC VENDOR TECHNOLOGY EXPO

#### Location: Expo Hall

Build your network: make sure to stop by and visit UWC's 90+ Exhibitors! **See page 33** for floorplan and additional information.

Sunday, August 14	6:00 pm-8:00 pm
Monday, August 15	7:30 am-4:30 pm
Tuesday, August 16	7:30 am-7:30 pm
Wednesday, August 17	7:30 am-9:00 am

## 2016 WRAP UP/2017 PLANNING MEETING

Anyone interested in organizing and planning the 2017 UWC is welcome to attend. Wednesday, August 17, 12-2 p.m., Room: Sapelo.

## ATTENDEE WIFI

WiFi at the UWC is proudly sponsored by



For login information, visit them at Booth 09!

## **TIP CENTRAL**

At this year's UWC, TIP Award winners will be presenting in sessions. Also, stop by TIP Central, near the Registration Desk for more information or questions regarding the TIP Awards. **View page 31 for more information.** 

\*Speakers notated with an asterisk are TIP Award winners.

## ABOUT ANS

#### Mission

ANS provides its members with opportunities for professional development. It also serves the nuclear community by creating a forum for sharing information and advancements in technology, and by engaging the public and policymakers through communication outreach.

#### Code of Ethics

The Code of Ethics covers the ethical and professional conduct that ANS expects of all members. The Code of Ethics can be found at www.ans.org/about/coe.

#### Statement on Diversity

The American Nuclear Society (ANS) is committed, in principle and in practice, to creating a diverse and welcoming environment for everyone interested in nuclear science and technology. Diversity means creating an environment – both in ANS and in the profession – in which all members are valued equitably for their skills and abilities and respected equally for their unique perspectives and experiences. Diverse backgrounds foster unique contributions and capabilities, and so creation of an inclusive Society ultimately leads to a more creative, effective, and technically respected Society.

ANS believes that everyone deserves opportunities for learning, networking, leadership, training, recognition, volunteering in Society activities, and all the other benefits that involvement in the Society brings, regardless of age, color, creed, disability, ethnicity, gender identity and expression, marital status, military service status, national origin, parental status, physical appearance, race, religion, sex, or sexual orientation. The selection of a member to serve in ANS's volunteer leadership structure shall be based solely on the member's ability, interest and commitment to serve. In particular, ANS encourages members at each level of the Society and in each Professional Division and Technical Group to make special efforts to recruit underrepresented minorities and women to ensure that they are adequately represented in the Society.

#### Respectful Behavior Policy (Abbreviated)

The open exchange of ideas, freedom of thought and expression, and productive scientific debate are central to the mission of the American Nuclear Society (ANS). These require an open and diverse environment that is built on dignity and mutual respect for all participants and ANS staff members, and is free of bias and intimidation.

ANS is dedicated to providing a safe, welcoming, and productive experience for everyone participating in Society events and other Society activities regardless of age, color, creed, disability, ethnicity, gender identity and expression, marital status, military service status, national origin, parental status, physical appearance, race, religion, sex, or sexual orientation. Creation of a safe and welcoming environment is a shared responsibility held by all participants. Therefore, ANS will not tolerate harassment of or by participants (including ANS volunteer leaders and staff members) in any form. Disciplinary action for participants found to have violated this principle may include reprimand, expulsion from an event or activity with or without a refund, temporary or permanent exclusion from all ANS events and activities, suspension or expulsion from volunteer leadership positions or groups, and/or suspension or expulsion from Society membership, as appropriate.

*If you or someone else experiences harassment, regardless of how you otherwise choose to initially handle the situation,* you are encouraged to report the situation to ANS. It is possible that the behavior you experienced is part of a larger pattern of repeated harassment. Please alert ANS to behavior you feel to be harassment regardless of the offender's identity or standing in the Society.

The designated contact person for reports at Utility Working Conference 2016 is Technical Program Chair Dan Doran, who can be reached in the hotel during the event or at daniel.doran@exeloncorp.com. In addition, you many contact ANS President Andrew C. Klein, PE during or after the event at andrew.klein@oregonstate.edu.

The complete Respectful Behavior Policy can be found at www.ans.org/about/rbp. If you have questions about the policy, please contact ANS Executive Director Robert C. Fine at 708-579-8200 or *rfine@ans.org*.

#### Consent To Use Photographs And Videos

All attendance of registered participants, attendees, exhibitors, sponsors and guests ("you") at American Nuclear Society ("ANS") meetings, courses, conventions, conferences, or related activities ("Events") constitutes an agreement between you and ANS regarding the use and distribution of your image, including but not limited to your name, voice and likeness ("Image"). By attending the ANS Events, you acknowledge and agree that photographs, video, and/or audio recordings may be taken of you and you grant ANS the right to use, in perpetuity, your Image in any electronic or print distribution, or by other means hereinafter created, both now and in the future, for media, art, entertainment, promotional, marketing, advertising, trade, internal use, educational purposes or any other lawful purpose. For any questions or concerns about the use of your Image, please contact the ANS Meetings & Exhibits Department at meetings@ans.org.

## SUNDAY, AUGUST 14

#### **GOLF TOURNAMENT "GRAB & GO" BREAKFAST**

Location: Marsh View Bar 6:30-8:00 am

The shuttle will pick up from the main hotel lobby between 6:30-7:15 a.m. Dropping off for breakfast from 6:30-7:30 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.

Grab & Go Breakfast is proudly sponsored by System One

### **UWC GOLF TOURNAMENT**

Location: Oak Marsh Golf Course SOLD OUT 8:00 am-1:30 pm

The 2016 ANS Utility Working Conference (UWC) Golf Tournament will be held at the Oak Marsh Golf Course starting at 8 a.m.

## **UWC GOLF TOURNAMENT AWARDS LUNCHEON**

Location: Cumberland BC 1:30-3:00 pm

The shuttle will pick-up from the golf course and return to the hotel from 1:00-2:00 p.m. The Awards Luncheon will take place at the hotel in Cumberland BC. Awards Lunch is for Golf Participants only.



## OPENING RECEPTION IN THE VENDOR TECHNOLOGY EXPO

Location: Expo Hall

6:00-8:00 pm

Join UWC attendees and vendors for a reception to celebrate the opening of the Vendor Technology Expo and to kick off yet another great Utility Working Conference! Heavy hors d'oeuvres, desserts and beverages will be provided. We look forward to seeing you there!

This event is included in a full registration or an Adult or Child Meal Pass. Additional tickets are available for purchase at the Registration Desk. All attendees will need a badge and ticket to enter the Expo Hall.



## **MONDAY, AUGUST 15**

#### INDUSTRY AWARDS AND OPENING PLENARY

"Delivering the Nuclear Promise/Light Water Reactor Sustainability"

Location: Amelia Ballroom

8:30-10:00 am

This plenary will address the activities underway to enable our nuclear plants to continue to safely operate for periods up to 80 years and possibly 100 years. It will also cover the "Delivering the Nuclear Promise" initiative to transform our nuclear industry and ensure its viability for consumers as well as its essential role in protecting the environment.

#### WFI COMF

- Scot Greenlee (Sr VP, Engineering and Technical Services, Exelon Nuclear)
- Andrew Klein (Professor, School of Nuclear Science and Engineering at Oregon State University, ANS President)

#### **SPEAKERS**

- Adam Cohen (Deputy Under Secretary for Science and Energy U.S. DOE)
- Kathryn McCarthy (Director of the Light Water Reactor Sustainability Program Technical Integration Office)
- Maria Korsnick (Chief Operating Officer of the Nuclear Energy Institute)

#### **INDUSTRY AWARDS:**

Utility Achievement Award: Recognizes the commercial nuclear power plant(s) that demonstrate outstanding achievements in sustained performance or outstanding improvement in performance.

Utility Leadership Award: Recognizes an individual who has demonstrated outstanding leadership and has contributed greatly to the success of the nuclear power industry.

Plenary, Special **Events** and Sessions

## **TUESDAY, AUGUST 16**

#### PLENARY SESSION AND PANEL

#### "Keeping Nuclear Viable by Influencing the Political Landscape"

**Location:** Amelia Ballroom 8:30-10:00 am

This Plenary will address the actions being taken by the nuclear industry to influence the state, regional and federal political landscape to ensure nuclear is valued and is maintained viable in the US energy portfolio.

#### **SPEAKERS**

• Joe Dominguez (EVP of Governmental and Regulatory Affairs and Public Policy at Exelon)

#### **PANELISTS**

- Donald Hoffman (President/CEO of EXCEL Services Corporation)
- Tom Craig (Director of Federal Affairs, Duke Energy)
- Emily Hammond (Professor of Law at GWU Law School)

#### **VENDOR EVENING RECEPTION & BOOTH RAFFLE/PASSPORT TO PRIZES**

Location: Expo Hall 5:00-7:30 pm

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 found on page 43 before 5:15 p.m. on Tuesday. Winners will be selected and announced at each individual booth between 5:15 and 7:30 p.m. **Visit page 43 for the Vendor Raffle Schedule.** You must be present to win. All registered attendees are invited.

#### **NEW: Passport to Prizes**

All attendees will receive a passport game card with participating sponsor logos and exhibit booth numbers. During exhibit hall hours, attendees must visit each booth to get their passbook stamped. Completed passbooks will be entered into a drawing during Tuesday's Vendor Reception for a chance at the grand prize! Passbooks must be completed and submitted by Tuesday at 7:00 pm at the Nuclear News booth 02. Winners will be announced at 7:30 pm. **Prizes Include:** 

- Grand Prize: (1) complimentary full-meeting registration, \$400 flight voucher, Round-trip airport transportation and a 3-night stay at the Omni Amelia Island for the 2017 UWC.
- 2<sup>nd</sup> Prize: iPad Air 2
- 3<sup>rd</sup> Prize: Fit Bit Blaze & \$100 Gift Card

#### EXCEL SERVICES CORPORATION EVENING EVENT

**Location:** Amelia Ballroom 7:30-10:30 pm

You are invited to the Annual UWC Evening Event sponsored by EXCEL Services Corporation: "Carrying the Torch for Nuclear".

Join in the camaraderie, enjoy food, refreshments and compete for a medal in the APPAREL EVENT! Dress to show support of your country or favorite Olympic sport - and you are automatically in the running. View our ad on page 22.

\*Ticket is required for entry\* Event is complimentary to all full meeting registrants and Adult or Child Meal Pass. All attendees will need a ticket to enter the event. Additional tickets are available for purchase at the Registration Desk.

## WEDNESDAY, AUGUST 17

#### **PLENARY SESSION**

"International Perspective on Nuclear Power" Location: Amelia Ballroom

8:30-10:00 am

This Plenary will address the international perceptions on nuclear power and how the US and international nuclear entities can better cooperate for mutual benefit.

#### **SPEAKERS AND PANEL**

- William Magwood (Director of the OECD Nuclear Energy Agency)
- Neil Wilmshurst (Vice President of Nuclear for EPRI)



SERVICES CORPORATION NUCLEAR ENGINEERING CONSULTING



## MONDAY, AUGUST 15 BREAKOUT SESSION 1: 10:30 AM-12:00 PM

#### BUSINESS

#### **Delivering Cost Reductions from the Nuclear Promise**

Session Organizer: George Harrison, (Executive Vice President, Chief Financial Officer, STPNOC) Participants: Dennis Koehl (CEO, STPNOC), Bob Duncan (Vice President, Nuclear Operations & Emergency Management, INPO) Room: Cumberland A

The current financial health of nuclear power plants represents a pivotal moment in the industry's future as evidenced by the untimely and premature closing of critical nuclear units across the United States for economic reasons alone. The Business Track seeks to flesh out key building blocks of the industries' strategic response to the current market conditions; Delivering the Nuclear Promise. These building blocks are the analysis of cost drivers and identification opportunities to improve efficiency (Building Block 1) as well as the redesign of nuclear power plant processes to improve efficiency while advancing the fundamentals of safe, reliable operation (Building Block 3). This session is built around the fact this challenge is not simply a blunt cost reduction but instead a drive to fundamentally rethink age-old business operating practices, improve efficiency, and augment financial culture to help keep nuclear power cost competitive.

#### ENGINEERING/EQUIPMENT RELIABILITY/REGULATORY RELATIONS

Preserving the Nuclear Promise: New Reactor Experience and Advanced Reactor Initiatives

Session Organizer: Marilyn Kray (Vice President, Nuclear Technology Strategy, Exelon Nuclear), Pareez Golub (Vice President, Engineering and Technical Services, EXCEL Services Corporation)
 Participants: David Lavigne (General Manager, Operational Readiness, SCANA), Mike McGough (Chief Commercial Officer, NuScale Power), Nicolas Smith (Senior Research Engineer, Southern Nuclear), Jennifer Uhle (Director of the Office of New Reactors, US NRC)
 Room: Ossabaw

Preserving the nuclear promise extends beyond the operating fleet into the next wave of reactor construction and advanced reactor development. Action is needed now in order to sustain the nuclear industry and preserve the nuclear promise for the next generation. This session will cover the spectrum of new plant designs ranging from the large LWRs under construction to the SMRs and Generation IV advanced reactors under consideration. The session will also address the various regulatory approaches being considered for the continuum of designs. Come and see the future of nuclear!

#### EQUIPMENT INNOVATION/SUPPLY Maintaining the Old

Session Organizer: Greg Keller (Director, BD & Marketing, AZZ Nuclear) Participants: Greg Keller (Director, BD & Marketing, AZZ Nuclear), Kevin Rietz (Senior Director, NIMS, ATC Nuclear) Room: Conference 2-3

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. Reverse engineering spare parts, for example, can allow plants to perform maintenance on large complex pieces of obsolete equipment as an alternative to the high cost to replace the entire piece of equipment. This session will also address solutions for the repair of older circuit boards.

## MONDAY, AUGUST 15 BREAKOUT SESSION 1: 10:30 AM-12:00 PM

#### **EXECUTIVE** Managing Commercial Risk

**Session Organizer:** Sean Clark (Business Development Manager and Senior Consultant Engineer, Atkins Nuclear Solutions)

**Participants:** Rich Weisband\* (Manager Equipment Reliability, ExelonNuclear), Cortt Cousino (Director Enterprise Risk Management, Exelon Nuclear), Mark Gake (Nuclear Chief Engineer, Black and Veatch), Carlos Barrios (Lead Project Controls Manager, Faithful and Gould) **Room:** Amelia Ballroom

Learn about the leading edge techniques and processes for identifying and managing commercial risk throughout the life cycle of major capital projects. This is an opportunity to interact with leaders in managing risk both within the nuclear utilities and in the broader major capital project markets, and to pick up techniques for developing a real sense of "fiduciary responsibility" within your organizations.

#### MAINTENANCE/WORK MANAGEMENT

#### INPO Review of 2015 & 2016 Trends in Work Management and Maintenance

Session Organizer: Pete Arthur (Principal Evaluator - A/WM, INPO), Bryant Hearne (Principal Evaluator - MA, INPO)

**Participants:** Pete Arthur (Principal Evaluator - A/WM, INPO), Bryant Hearne (Principal Evaluator - MA, INPO) **Room:** Cumberland B

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 take away from this session a deep understanding of industry performance in general and specific information and contact personnel they can talk to about what is working and what is not working in the areas discussed by INPO.

#### **OPERATIONS/OPS TRAINING/RISK MANAGEMENT** Crediting FLEX/Mitigating Strategies in Risk-Informed Applications

**Session Organizer:** Don Vanover (Jensen Hughes)

**Participants:** Tom Zachariah (Project Manager, Risk Assessment, NEI), Don Vanover (Vice President, Jensen Hughes), Mike Powell\* (Director of Fukushima Initiatives, APS), Gene Eimar\* (Shift Manager-Operations Support, APS), Jerry Pierce (Operations Manager, Brunswick, Duke Energy) **Room:** Talbot

Nuclear Plant sites have made a considerable investment in FLEX equipment and storage facilities over the last few years. In support of implementing the "Nuclear Promise", crediting FLEX (or other available portable) equipment can play an important role in risk-informed applications that can reduce operating costs. This track will discuss industry efforts and NRC understanding for crediting these mitigating strategies during normal plant operations (e.g. for online and outage configuration risk models) and risk-informed applications such as NOEDs, SDPs, MSPI and other risk-informed applications.

#### ORGANIZATIONAL EFFECTIVENESS/PERFORMANCE IMPROVEMENT Leading an Organization to its Next Level of Performance

**Session Organizer:** Reiko Perleberg (Corporate Performance Improvement Supervisor, Southern Nuclear) **Participants:** David Vineyard (Site Vice President, Plant Hatch, Southern Nuclear) **Room:** Cumberland C

Is your organization ready to advance to its next performance level? Are you tapping into 100% of employee potential? Has your organization embraced the 15-005 leadership and team effectiveness philosophy and are you really getting results? If you are stuck on a performance plateau, it is time to implement a results-based proven approach of working together to build an engaged team to achieve excellent results. Based on a foundation of effective leadership, David Vineyard, Site Vice President - Plant Hatch, walks you through a proven leadership and teamwork model that is taking his Plant Hatch team to new heights.

## MONDAY, AUGUST 15 BREAKOUT SESSION 2: 1:30–3:00 PM

#### **BUSINESS**

#### Long Range Planning Processes and Tools

Session Organizer: Donna Keck (Corporate Business Consultant, Duke Energy) Participants: Pamela Metz (Director of Planning & Strategy, NextEra), Tim Schlimpert (VP, MCR Performance Solutions), Kristy Neckowicze (President, Envizion), Adam Dow (Lead Consultant, MCR Performance Solutions) Room: Cumberland A

Long Range Planning (LRP) Processes and Tools support efforts in Business Planning, Project Evaluation and of course Long Range Planning. Some of the most impactful decisions we make in the nuclear industry are made in these processes to ensure the long term technical and financial viability of our nuclear assets. Presenters will discuss good practices and process improvements in these areas with measurable results where available.

#### ENGINEERING/EQUIPMENT RELIABILITY

#### Think Smart Think Digital: Delivering the Nuclear Promise through Digital I&C

Session Organizer: Ray Herb (Digital Principal Engineer, Fleet Design, I&C, SouthernNuclear), Pareez Golub(Vice President, Engineering and Technical Services, EXCEL ServicesCorporation) Participants: Michael Bailey (Director of Digital Engineering Support, Nuclear Corporate Engineering, Duke Energy), John Connelly (Engineering Manager, ExelonNuclear), Richard Gigliotti (Consulting Engineer, Millstone Power Station, Dominion)

Room: Ossabaw

There are a lot of misconceptions, myths, and fear surrounding digital projects. With the pressures to reduce costs, there is a need to do more with less. The single largest cost driver is the cost of manpower, the second being equipment replacement. Digital components require less periodic maintenance, and are more reliable and digital controls reduce wear and tear on controlled components. The reduction in maintenance and replacement costs results in big savings and ultimately a smaller, more agile workforce. Come and see examples showcasing where digital technology has increased reliability, increased power, reduced manpower, reduced outage time, and contributed to long term reliability of large investment assets.

#### EQUIPMENT INNOVATION/SUPPLY Replacing the Old

**Session Organizer:** Greg Keller (Director, BD & Marketing, AZZ Nuclear)

**Participants:** Chris Mitchell (Site Director, Curtis-WrightNuclear Group), Robert Lane (VP Sales and Marketing, ATCNuclear), William Van Wormer (Manager, Products and Business Processes, Westinghouse) **Room:** Conference 2-3

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. Solving obsolete equipment challenges with available equipment using the same basic technology saves the high cost of design changes or modifications.

#### EXECUTIVE

#### **Control or Collaboration**

**Session Organizer:** Sean Clark (Business Development Manager and Senior Consultant Engineer, Atkins Nuclear Solutions)

**Participants:** Don Fleetwood (GM of Project Controls for Regulated Generation and Transmission, Duke Energy), Nigel Thornton (Business Development Director - Energy, Atkins Nuclear Solutions), Tom Crumrine (Vice President - Nuclear, P1 Group Inc)

Room: Amelia Ballroom

Achieving the proper balance of oversight, collaboration, and risk and reward sharing between utilities and vendors is one of the key attributes of a successful major capital project. The consequences of imbalance could be financially devastating...or worse; while the benefit of achieving the proper balance may be the survival of the industry. Come interact with the distinguished panel of utility and vendor executives as they discuss the challenges of maintaining this balance, and new approaches to achieving successful balance that also challenge the status quo.

## MONDAY, AUGUST 15 BREAKOUT SESSION 2: 1:30-3:00 PM

#### MAINTENANCE/WORK MANAGEMENT

Direction of Delivering the Nuclear Promise Work Management Planning and Execution Teams Session Organizer: Gwen Bookheimer (Planning Manager, Electrical and I&C, TVA), Jon Anderson (CEO, ACA Inc) Participants: Terry Maund (Delivering the Nuclear Promise (Work Management), INPO) Room: Cumberland B

This session starts with a presentation of the actions being taken by the Nuclear Promise Work Management and Maintenance teams. This discussion will describe the areas their teams are working on and their timelines. The presenter will then request "deck plate" input to help their teams with the development of their Promise areas. This session is your opportunity to understand where the Promise is going and to have your voice heard by the Work Management and Maintenance Promise teams.

#### **OPERATIONS/OPS TRAINING Operational Focus Metrics**

Session Organizer: Clint Six (Director, Corporate Operations, Exelon Nuclear) Participants: James Edwards (Operations Manager, Wolf Creek), Brian Anderson(Operations Manager, McGuire, Duke Energy), Alan Raush (Operations Specialist, ExelonNuclear), John Reimer (Operations Specialist, Exelon Nuclear), Jeff Dehn (Strategic Communications Manager - Nuclear, Xcel Energy) Room: Talbot

Measuring a site's operational focus is often subjective and based on what happens at Operational Focus meetings. Is there a better way to measure operational focus through objective metrics? This discussion will center around the answer to that question.

#### **ORGANIZATIONAL EFFECTIVENESS/PERFORMANCE IMPROVEMENT** Using CAP to Advance Safety, Reliability and Economic Performance

**Session Organizer:** Reiko Perleberg (Corporate Performance Improvement Supervisor, Southern Nuclear) **Participants:** Tim Steele (Performance Improvement Manager, Southern Nuclear), John Grabnar (Director, Fleet Operations Support, FENOC) **Room:** Cumberland C

You will not get this information anywhere else. Are you interested in Performance Improvement? You have to say Yes, of course. Have you heard of DNP? Even if you say yes or no, this session helps you understand what CAP-001 is all about. Tim Steele, Southern Nuclear CAP-001 Industry Champion, John Grabnar, FirstEnergy and CAP-002 Industry Champion walk you through the intent and implementation of Reducing the Cumulative Impact from the Corrective Action Program. Tim and John have experience with CAP-001 at three fleets. Here is an opportunity to learn about DNP and how it can be leveraged to gain substantial performance improvement while making your nuclear facility more efficient.

## REGULATORY RELATIONS/RISK MANAGEMENT

#### **Risk Informed Approaches for Legacy Design Issues**

#### Session Organizer: Anil Julka (Manager, FPL)

**Participants:** Victoria Anderson(Senior Project Manager, Risk Assessment, NEI), Jack Grobe (Director, Strategic Projects, Exelon Nuclear), Robert Isbell (Lead PRA Engineer, Duke Energy), Larry Naron (Senior Manager, Base PRA Models and Risk Tools, Exelon Nuclear), John Lubinski (Director, Division of License Renewal, NRC) **Room:** Sapelo

This session will provide insights on using risk informed approaches to address legacy design vulnerabilities. Often times, design issues are identified due to unclear language in licensing documents or different interpretations by the reader. By using risk insights, we can make informed design decisions and balance the resources spent on tasks that are indeed improving safety. Examples include the impact of tornado missiles to nuclear plants, BWR suction strainer performance, and open phase relay design considerations. Full-blown PRA approaches (i.e. RG 1.200) are not necessarily required but risk informed approaches do warrant knowledge and understanding of PRA techniques by engineers.

## MONDAY, AUGUST 15 BREAKOUT SESSION 3: 3:30–5:00 PM

#### BUSINESS

#### **Cost Optimization and Financial Culture**

Session Organizer: Maria Hernandez (Nuclear Corporate Finance Manager, Duke Energy) Participants: Brad Sawatzke (CNO, Energy Northwest), Tim Schlimpert (VP MCR Performance Solutions), Phil Jones (VP, Copperleaf), Ernie Kapopoulos (VP of Operations, Duke Energy), Room: Cumberland A

The Cost Optimization and Financial Culture session topics will be short term in nature from a budgeting perspective or more broad from an organizational perspective when improving culture. The "cost stack" at any nuclear utility comprises outage, capital projects, O&M projects including major maintenance, base O&M, staffing, and regulatory expense structure. This session will focus on key successes producing tangible results across several of these cost categories as well as potential lessons learned from recent market events. Particular emphasis will be given to the transition from "initiative space" to sustainable operational savings drawing upon the perennial foundations of safety, reliability and profitability.

#### ENGINEERING/EQUIPMENT RELIABILITY

# Delivering the Nuclear Promise: Advancing Safety, Reliability, and Economic Performance (Engineering Initiatives)

Session Organizer: Scot Greenlee (Sr VP, Engineering and Technical Services, Exelon Nuclear) Participants: Mark Woodby (VP, Engineering & Technical Services, Entergy), Bradley Adams (VP Fleet Engineering, Southern Nuclear), John Elnitsky (Sr VP, Nuclear Engineering, Duke Energy), Bob Coward (Principal Officer, MPR; ANS President-Elect)

#### Room: Ossabaw

Within the Delivering the Nuclear Promise theme, there is much that engineering can do to help maintain safety while optimizing the many aspects of engineering in support of plant operations. The Chief Nuclear Officers (CNOs) for all utilities have established key goals in each plant discipline area and engineering's role includes the following:

- 1) Making "Margin Management" more efficient.
- 2) Updating component classifications to focus on the most "critical" equipment so that preventive maintenance strategies can be optimized using new tools.
- 3) Standardizing the modification process across the industry, along with the development of a common software platform.
- 4) Supporting improving organizational structures and gaining efficiencies in systems, programs and design engineering.
- 5) Implementation of an NRC endorsed screening process to reduce NRC reviews of low safety significance Materials Program documents.

Speakers for this session will outline progress on these initiatives, lessons learned and the remaining challenges to implementation. Additionally, the audience will be part of a brainstorming session to surface new ideas to support Delivering the Nuclear Promise.

#### EQUIPMENT INNOVATION/SUPPLY Embracing the New

**Session Organizer:** Greg Keller (Director, BD & Marketing, AZZ Nuclear) **Participants:** Len LaCrosse (Product Development Manager, AREVA), Craig Irish (VP of Sales and Marketing, NLI), Jesse Geris (I&C Product Development Manager, AREVA) **Room:** Conference 2-3

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, such as using differential pressure to measure flow versus ultrasonic flow measurement, or digital controls on a thirty-year old chiller. The accuracy and reliability gains available through new technologies may increase power output and capacity factors.

### MONDAY, AUGUST 15 BREAKOUT SESSION 3: 3:30–5:00 PM

## EXECUTIVE/REGULATORY RELATIONS

#### Project AIM, Delivering the Nuclear Promise, and Fukushima Lessons Learned

**Session Organizer:** Matt Sunseri (President, Zeus Enterprises LLC), Jack Grobe (Director Strategic Projects, Exelon Nuclear)

**Participants:** Bill Dean (Director, Office of Nuclear Reactor Regulation, US NRC), Tim O'Connor (Sr VP and CNO, Xcel Energy), Brad Adams (VP Fleet Engineering, Southern Nuclear), Dave Crawley\* (SAFER Project Manager, Southern Nuclear) **Room:** Amelia Ballroom

Few initiatives in the last decade have had or will have as much impact on the nuclear industry as Project AIM, Delivering the Nuclear Promise and Fukushima lessons learned. No doubt economic forces have been a challenge for any industry in recent times. This session will shed light on how regulatory bodies and commercial nuclear operators intend to improve efficiencies while being responsible to safely regulating and operating in a society that has little tolerance for risk. Hear from leaders in the country how they intend to maintain economic viability while providing exceptional safety in the nuclear industry.

#### MAINTENANCE/WORK MANAGEMENT

#### Efficiencies Gained through Maintenance and Work Management Through Collaboration Between Efficiency Bulletins and Electronic Work Packages

**Session Organizer:** Scott Ackerman (Electrical Maintenance First Line Supervisor, SCANA) **Participants:** John McDonald (Fleet Work Control Manager, Southern Nuclear), John Horn (Fleet Maintenance Director, Southern Nuclear), Dale Shaw (Sr. Program Manager (Maintenance), Exelon Nuclear)

Room: Cumberland B

To reduce our costs Work Management needs to get smaller and our craft less dependent on work steps and paperwork. This session will help us understand how others are effectively using minor maintenance, implementing a graded approach to walkdowns, and eliminating administrative changes to preventative work orders to reduce the cost of performing simple, low risk tasks on the organization. This will help us to ensure that our resources are focused on maintaining critical equipment and decreasing operational vulnerabilities. Additionally the use of electronic work orders in collaboration with the application of efficiency bulletins will provide participants with best of the best practices from those utilities that are already applying these efficiencies and technologies.

### **OPERATIONS/OPS TRAINING**

#### **Operations Human Performance/Crew Performance Management**

Session Organizer: Jerry Pierce (Operations Manager, Brunswick, Duke Energy) Participants: James Edwards (Operations Manager, Wolf Creek), Sara Lange (Operations Manager, Callaway, Ameren), Eric Swain(Shift Operations Superintendent, Oyster Creek, Exelon Nuclear), Richard Kiss (Manager, Nuclear Training, Clinton Power Station, Exelon Nuclear) Room: Talbot

A working discussion of both human performance tools and application of Operator Fundamentals to reduce operational events caused by Operations human performance problems without excessive burden. This session will consider the balance between the importance of crew performance management and the administrative burden that can be associated with the management of crew notebooks.

\*Speakers notated with an asterisk are TIP Award winners

## MONDAY, AUGUST 15 BREAKOUT SESSION 3: 3:30–5:00 PM

#### ORGANIZATIONAL EFFECTIVENESS/PERFORMANCE IMPROVEMENT The Real Benefits of Implementing CAP-001/2016 TIP Award How To Implement At Your Station

Session Organizer: Becky Salvadore (Director, Performance Improvement, Exelon Nuclear), Jack Popielarski (Fleet Assessment OR SME, ExelonNuclear) Participants: Don Wheeler (Director, Performance Improvement, Palo Verde, APS), Pam Metz\* (Director of Planning & Strategy, NextEra)

Room: Cumberland C

Did you ever think that taking an efficiency bulletin to heart and implementing it would save the equivalent time of four full time employees. Want to know how? Join Don Wheeler, Performance Improvement Director, Palo Verde, as he walks you through the steps of implementing CAP-001, Reducing Cumulative Impact from the Corrective Action Program. Don is an engaging speaker and facilitator who will help you learn what it takes to get a large site to think about CAP differently. It is not easy to get people to want to change – attend this session and benefit from Palo Verde's experience.

#### RISK MANAGEMENT Realism in Fire PRA Modeling

**Session Organizer:** Victoria Anderson (Senior Project Manager, Risk Assessment, NEI) **Participants:** Harold Stiles (Lead Engineer, PSA, Duke Energy), Greg Zucal (Senior Engineer, Jensen Hughes Power Services) **Room:** Sapelo

With many utilities developing Fire PRAs for regulatory application, the industry is examining additional areas where these can be used to improve operational efficiencies. In particular, technical specification initiatives such as TSTF-505 (Risk-Informed Completion Times) - which can be used to better manage equipment out of service windows - calls for the use of Fire PRA results. While many of the Fire PRAs developed to date remain conservative, risk-informed regulatory applications deliver the most operational and safety benefit when based upon realistic models, and it is therefore critical that the pursuit of realistic Fire PRAs continue. This session will cover specific model aspects undergoing improvements, as well as the regulatory and operational implications of remaining conservatisms.



## **Carrying the Torch for Nuclear**



The outstanding hard work and dedication throughout the UWC deserves an

## Olympic-style finale!

Join in the camaraderie, enjoy a plentiful buffet and refreshments, and compete for a medal in the APPAREL EVENT!

Dress to show support of your country or favorite Olympic sport, and you are automatically in the running.

Tuesday, August 16th | 7:30pm - 10:30pm Amelia Ballroom | Omni Amelia Island Plantation Resort

Note: Ticket required for entry. One ticket is included with each full meeting registration and purchase of an Adult or Child Meal Pass. Additional tickets may be purchased with your meeting registration or on-site. Tickets distributed at on-site registration.



## TUESDAY, AUGUST 16 BREAKOUT SESSION 4: 10:30 AM-12:00 PM

#### **BUSINESS**

#### **Process Analysis & Improvement**

Session Organizer: Adam Dow (Lead Consultant, MCR PerformanceSolutions)

**Participants:** Adam Dow (Lead Consultant, MCR Performance Solutions), Tim Schlimpert (VP, MCR Performance Solutions), Jim Hill (Senior Business (IT) Manager, Xcel Energy), Steve Bethay (Director, Support Services, TVA) **Room:** Cumberland A

The Process Analysis and Improvement session will present approaches to analyze processes, identify improvements in terms of efficiency or effectiveness and implementation approaches to realize benefits of improvement efforts. By virtue of their complex interfaces; integrated processes are prone to unnecessary steps, missed hand-offs, duplication of efforts, excess resource consumption and less than optimum results. The major objective of this session is to provide current-market actionable strategies guided by cost or staffing benchmarks, financial or non-financial performance indicators and technology solutions in order to improve plant operating expense performance driving a competitive paradigm.

#### ENGINEERING/EQUIPMENT RELIABILITY/RISK MANAGEMENT Efficiently Realizing the Promise of Risk Informed Engineering Programs (50.69)

Session Organizer: Tom Zachariah (Project Manager, Risk Assessment, NEI) Participants: Tom Zachariah (Project Manager, Risk Assessment, NEI), Pat O'Regan (Technical Executive, EPRI), Ralph Chackal (Senior Consultant, AER Inc.), Vish Patel (Risk Modeling Manager, Risk Informed Engineering, Southern Nuclear) Room: Ossabaw

In support of implementing the "Nuclear Promise" this track includes sessions with the early adopters of 10 CFR 50.69, "Risk-informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors". The scope and breadth of what this risk-informed initiative can do to help reduce costs is considerable. Results and lessons learned from pilots that are already under way will be discussed and will include sessions related to understanding actions being taken to cut 30% of plant operating costs. This session will be combined with other tracks to provide a broad based, multi-discipline understanding of the topics being discussed.

#### EQUIPMENT INNOVATION/SUPPLY Improving Efficiency and Reducing Costs through Environmental Monitoring and Emergency Response to Deliver the Nuclear Promise

**Session Organizer:** Jordan Gillis (Director, Scott Madden)

**Participants:** Dan McArthur (Senior Strategist, Nuclear Oversight and Regulatory Affairs, Bruce Power), Sean Lawrie (Partner, Scott Madden) **Room:** Conference 2-3

Come learn how Bruce Power recently leveraged technology and employed innovative tools and techniques to increase efficiency, reduce workload, enhance collaboration with government agencies, and gain recognition by the IAEA as the industry leader in emergency response, off-site radiological monitoring, environmental reporting and emergency response processes for regular operations and respond to emergency situations at its Canada nuclear power site. The program was designed after the lessons learned from the events of Fukushima Daiichi.

#### EXECUTIVE

#### Load Following and Economic Dispatch

**Session Organizer:** Rich Hall (Director, Corporate Engineering, Exelon Nuclear) **Participants:** Brad Sawatzke (CNO, Energy Northwest), John Reimer (Operations Specialist, Exelon Nuclear) **Room:** Amelia 2-4

Base load operation of nuclear facilities has been a long held operating practice in this country. In this session, hear how some utilities have overcome this paradigm and are now placing their plants in economic dispatch and load following operations. Learn what drove these utilities to this decision and why it makes sense for them.

## TUESDAY, AUGUST 16 BREAKOUT SESSION 4: 10:30 AM-12:00 PM

#### MAINTENANCE/WORK MANAGEMENT/OPERATIONS/OPS TRAINING Operations, Work Management, and Maintenance Working Together to Improve New Work Screening and an Expanded Role for FIN Teams

**Session Organizer:** Gwen Bookheimer, (Planning Manager, Electrical and I&C, TVA), Mark Utz (Manager, Corporate Work Management, Exelon Nuclear), Gary Dudek (Operations CFAM, Southern Nuclear)

**Participants:** Scott Brasfield (Maintenance Support Manager, PG&E), Gary Dudek (Operations CFAM, Southern Nuclear), Darrell Perkins (Senior Operations Manager, ANO, Entergy), Mark Utz (Manager, Corporate Work Management, Exelon Nuclear)

Room: Cumberland B

This is going to be an exciting session that includes Operations, Work Management and Maintenance working together to understand the Promise changes in the work order screening process to ensure that impacts on Maintenance are minimized. This session will also include discussions of the expanded role of the FIN Teams to do much more work than today. This discussion will include discussions by personnel that who have already expanded the role of their FIN teams and how they achieved that change.

#### **ORGANIZATIONAL EFFECTIVENESS/PERFORMANCE IMPROVEMENT** The Human Performance Cutting Edge - What Works Best to Reduce Errors and Events

**Session Organizer:** Dick Cole (Human Performance Mentor, AEP-HOPE Consulting) **Participants:** John Waid (Human Performance Section Leader, Palo Verde, APS), Chantelle Hurst (Human Performance CFAM, Duke Energy) **Room:** Cumberland C

Join us for a session where we hear the latest news from members of the Industry Human Performance Working Group and other experienced practitioners. John Waid, Human Performance Section Leader Palo Verde and Chantelle Hurst, HU CFAM, Duke Energy, lead a discussion on best practices, industry initiatives, and how to improve the efficiency of your HU efforts by focusing on fundamental tools, effective coaching, and recognizing pre-event triggers. Dick Cole, working with AEP Generation Resources, will provide lessons learned from taking HU best practices to non-nuclear utilities.

### **REGULATORY RELATIONS**

#### Effectiveness of the Backfit Process and the Committee to Review Generic Requirements

Session Organizer: Keith Jury (Vice President, Regulatory Affairs, Exelon Nuclear)
Participants: Bradley Fewell (Senior VP for Regulatory Affairs & General Counsel, ExelonNuclear),
Bill Horin (Partner, Winston & Strawn LLP), Anthony Pietrangelo (Senior VP & CNO, NEI), Steve West (Deputy Director, Office of Nuclear Security and Incident Response, US NRC)
Room: Talbot

The NRC's backfit rule provided a regulatory structure to increase safety and promote regulatory stability, controlling changes to both generic and plant specific regulatory requirements. The NRC's Committee to Review Generic Requirements (CRGR) was established to ensure that generic backfits are justified according to the backfit rule. This session will review the purpose and framework of the backfit process and CRGR, discuss the basis for challenges to NRC's backfit decisions, and provide NRC perspectives on backfit rule implementation. The session will also explore opportunities to strengthen the NRC's backfitting program, and examine the role of licensees in the backfitting process.

## TUESDAY, AUGUST 16 BREAKOUT SESSION 5: 1:30–3:00 PM

### BUSINESS

### Optimizing Site Services: Security, Staffing, Use of Contractors

**Session Organizer:** Maria Hernandez (Nuclear Corporate Finance Manager, Duke Energy) **Participants:** Ed O'Neil (General Manager of Protective Services, Duke Energy), Trish MacDonald (Director, HR Operations Support, AREVA), Adam Dow (Lead Consultant, MCR Performance Solutions), Tim Schlimpert (VP, MCR Performance Solutions) **Room:** Cumberland A

The Optimizing Site Services session will focus on successes in cost optimization in Security and other Site Services costs. The session will also discuss methods to analyze and optimize in house staffing and major contractor expenses. These costs are often contract expenses which helps them elude the watchful eye of staffing. They also may have Safeguards issues for Security costs making thorough reviews a challenge. Multiple cost reduction perspectives will be examined including security budgeting and benchmarking, investments in new services or technologies resulting in proven cost savings, discussions around the current regulatory environment and staffing optimization through task analysis and successful implementation of reduced work forces.

#### ENGINEERING/EQUIPMENT RELIABILITY Equipment Vulnerability Reduction

**Session Organizer:** George Malone (Engineering Director, ExelonNuclear), Nally Osburn (Fleet Equipment Reliability, Duke Energy)

**Participants:** George Malone (Engineering Director, Exelon Nuclear), Tom Cosgrove (General Manager, Corporate Engineering, Duke Energy), Vince Bacanskas (Director/Chief Engineer, Entergy), Fatma Yilmaz (Reliability Engineer, South Texas Project), Thom Huckaby, (Equipment Reliability, INPO) **Room:** Ossabaw

This special session on Equipment Vulnerability Reduction will focus on the lessons learned and best practices in the various aspects of improving generation performance through equipment vulnerability identification, mitigation, and elimination. Despite previous efforts to improve nuclear generation profiles, industry SCRAM rates were flat for the past several years and equipment issues continue to be the major contributor. Several initiatives were commissioned by utilities over the last several years with the focus on identifying and managing vulnerabilities that could lead to a SCRAM. This session will share industry experiences and best practices to improve equipment reliability and the approach needed to maintain these efforts in support of the Nuclear Promise initiatives. Speakers from utilities and industry organizations will share the progress and future actions of this important element in fulfilling the nuclear promise and will include a panel discussion with the audience at the end.

#### EQUIPMENT INNOVATION/SUPPLY

#### Working Cross Functionally to Improve Nuclear Parts Availability

Session Organizer: Jordan Gillis (Director, Scott Madden) Participants: Frank Guglielmi (Vice President, Fleet Operations and Maintenance, Ontario Power Group), Marc Miller (Partner, Scott Madden) Room: Conference 2-3

This presentation will offer perspective on how one of the largest nuclear operators in North America has used a breakthrough approach to address longstanding issues with parts availability.

#### EXECUTIVE

#### Surveillance Interval Extension by NEI 04-10 R1 for Safe and Cost Effective Operation

Session Organizer: Victoria Anderson (Senior Project Manager, Risk Assessment, NEI) Participants: Anil Julka (Manager, FPL), Will Coble (I&C Engineering Manager, Catawaba Nuclear Station, Duke Energy), David Johnson (VP, Quantitative Risk, ABS Consulting), Brian Mann, Bob Bement Room: Amelia 2-4

Within the Delivering the Nuclear Promise theme, there is a great deal of focus and attention on the optimization of surveillance frequencies, which can result in decrease in person-hours and outage critical path hours. The NRC-endorsed process described in NEI 04-10 Rev 1, entitled, "Risk-Informed Technical Specifications Initiative 5b, Risk-Informed Method for control of Surveillance Frequencies," allows licensees to use a combination of risk-informed and engineering judgment approaches to optimize surveillance frequencies. Sessions speakers will provide their lessons learned and best practices to assist other licensees with extracting the maximum operational benefit from this program.

## TUESDAY, AUGUST 16 BREAKOUT SESSION 5: 1:30–3:00 PM

#### MAINTENANCE/WORK MANAGEMENT

Improving Maintenance Availability and Productivity by Effective Use of the Demand/Supply Model, T-week Process and Long Term Planning

Session Organizer: Jon Anderson (CEO, ACA Inc)

**Participants:** Joe Klecha (Vogtle 3&4 Supplier Compliance Director, Southern Nuclear), Tom Morris (Corporate On-Line Work Control Manager, Exelon Nuclear), Will Hammond (CFAM On-line Work Management, Duke Energy) **Room:** Cumberland B

The first step to understanding the gap between the amount of work to be performed and the number of Maintenance resources to do that work is developing the Demand and Supply Maintenance Resources Model. This model details the demand (work) and supply (people) and provides insights to how those gas can be closed. This session will include a discussion of how the model can be developed and once developed how the model can be used in many different ways to help improve Maintenance Productivity. In this session there will be discussions on how the T-week process was streamlined in anticipation of the Nuclear Promise. This session will identify changes that reduced maintenance burden of the T-week process (such as graded approach to walkdowns) affording the opportunity to better utilize resources to perform work.

### OPERATIONS/OPS TRAINING Operations Staffing

Session Organizer: Mike Spellman (Control Room Supervisor, Shearon Harris, Duke Energy)
 Participants: Tom VanWyen (Director of Training, ExelonNuclear), Dave Pitsley (Operations Manager, Robinson, Duke Energy), Chuck Goodnight (President, Goodnight Consulting)
 Room: Amelia 1

Consistent with the Delivering the Nuclear Promise initiative is the need to minimize costs, fully staff the operating shifts and feed the rest of the organization. What is the right model and level of staffing for single and multi-unit sites?

#### ORGANIZATIONAL EFFECTIVENESS/PERFORMANCE IMPROVEMENT Amping up Organizational Effectiveness - Case Studies & Techniques from Utilities and Industry SMEs

Session Organizer: Becky Salvadore (Director, Performance Improvement, Exelon Nuclear), Jack Popielarski (Fleet Assessment OR SME, Exelon Nuclear) Participants: Mark Rigsby (DukeEnergy), Dr. Mike Quinn (Workplace Cornerstone) Room: Cumberland C

If you have ever scratched your head and wondered if you were going after Organizational Effectiveness correctly, then this session is for you. Join Mark Rigsby, Duke Energy, and Dr. Mike Quinn, WorkPlace Cornerstone, as they walk you through the problems they have overcome. They will offer tips and techniques for addressing Org Eff issues we encounter and sometimes confound us as we implement Efficiency Bulletins. The speakers have a wide range of experience and approaches to solving organizational effectiveness problems. These differences maximize the benchmarking you will get from this session.

## TUESDAY, AUGUST 16 BREAKOUT SESSION 5: 1:30–3:00 PM

### **REGULATORY RELATIONS**

### Digital Instrumentation and Controls, and Cyber Security Regulatory Implications

Session Organizer: John Connelly (Engineering Manager, Capital Projects, Exelon Nuclear) Participants: William Gross (Senior Project Manager, Engineering, NEI), Raymond Herb (Digital Principal Engineer - Fleet Design, Southern Nuclear), Ronald Jarrett (I&C Specialist/Digital Fleet Program Manager, TVA), John Lubinski (Director, Division of Engineering, Office of Nuclear Reactor Regulation, NRC) Room: Talbot

The application of digital technology in nuclear power plants has been conclusively demonstrated to increase system reliability, fault tolerance, efficiency and most importantly, margins of safety. Despite these advantages the nuclear industry has been slow to modernize plant protection and control systems. This is largely driven by regulatory complexity and financial risk. This session will cover the major digital I&C regulatory issues and the NRC digital action plan contained in SECY 16-0070:

- Screening and evaluation of digital changes under 10CFR50.59
- Common cause failure and mitigation methods unique to digital
- Commercial grade dedication and digital procurement
- Cyber security

#### **RISK MANAGEMENT**

#### **PRA Model Technical Adequacy vs. Perfection**

**Session Organizer:** Bob Rishel (Director, Probabilistic Risk Assessment, Duke Energy) **Speakers:** Harold Stiles (Lead Engineer, PSA, Duke Energy), Dr. Curtis Smith (Directorate Fellow, INL), Gene Kelly (Sr Engineering Manager, Corporate Engineering and Risk, Exelon Nuclear), Don Vanover (VP, Jensen Hughes), Bruce A. Morgen (Director, Risk Services Division, EPM), Dr. Diego Mandelli (R&D Scientist, INL) **Room:** Sapelo

PRA models are used for a wide spectrum of activities and a growing number of regulatory applications. These models accrue considerable benefits in terms of safety, operational flexibility and resources. Model updates have evolved towards realism and stability, and the ANS/ASME Standard for model technical adequacy has served the industry well. This industry has invested considerably in their development and quality, with a high degree of confidence which in turn should be reflected in licensing activities. After several decades of methodological developments and many applications, PRA models are indeed useful; yet questions persist about technical adequacy. Models do not need to be perfect ... so are they good enough for risk-informed applications?



## TUESDAY, AUGUST 16 BREAKOUT SESSION 6: 3:30–5:00 PM

#### **BUSINESS**

#### **TIP Award Winners**

Session Organizer: ShannColeman (Manager, Strategic Nuclear Alliances and Variable Resources, Duke Energy)
Participants: Steve Higginbotton\* (Senior Manager, Nuclear Communications, TVA),
Paul Tobin, Jr.\* (Executive VP, Nuclear Engineering Services, Rolls-Royce), Daniel Geraghty\* (Training Manager, Duke Energy), Stuart Lewis (Program Manager, EPRI)
Room: Cumberland A

The TIP Awards are open to individuals and teams from both domestic and foreign utility members of NEI that have created and implemented transfer- able new practices—or improved processes and equipment—within the past three years. To be considered for a TIP Award, the entry must be complete, and the new process or practice must be implemented and address the following criteria: Safety, Cost-Savings Impact, Productivity/Efficiency, Innovation, and Transferability. All TIP Award winners will be recognized at a special gathering during the Nuclear Energy Assembly—the annual meeting of NEI.

#### ENGINEERING/EQUIPMENT RELIABILITY/MAINTENANCE/WORK MANAGEMENT Changes in Component Classifications and The Promise Approach to Maintaining the PM Program

**Session Organizer:** Jon Anderson (CEO, ACAInc), NallyOsburn (Fleet Equipment Reliability, Duke Energy), Mark Utz (Manager, Corporate Work Management, Exelon Nuclear)

**Participants:** Rich Weisband (Sr Staff Engineer, Exelon Nuclear), Mark Utz (Manager, Corporate Work Management, Exelon Nuclear), John Langskov (System Engineering, Palo Verde, APS) **Room:** Cumberland B

You are maintenance and suddenly 95% of the components at your plant are non-critical. Finally you can rid yourself of all those pesky PM's and start saving manpower. Be careful what you wish for! Changing PM strategies in such a way to maintain the required amount of component reliability for the minimum amount of cost is a tricky business, and not well understood by the nuclear industry as "reliability at any cost" has always prevailed throughout the industry. This session is designed to give you the sense of the next steps to take in keeping your plant safe and reducing your costs. This session will start with a discussion about critical

component classifications and then move into a discussion of real results from the Promise approach to manage the PM Program.

#### EQUIPMENT INNOVATION/SUPPLY

#### Advanced Monitoring and Diagnostics to Reduce Cost

Session Organizer: Ted Quinn (President of Technology Resources, ANS Past President), Richard Wood (Professor of Nuclear Engineering, University of Tennessee)
Participants: Hash Hashemian (President and CEO, Analysis and Measurement Services Corporation), Richard Wood (Professor of Nuclear Engineering, University of Tennessee)
Room: Conference 2-3

Recent advances in condition monitoring technologies are allowing nuclear facilities to leverage data from existing plant sensors and components to improve reliability and help reduce operating costs. In this session, learn how these technologies have evolved from research and development activities to fully-implemented applications that are providing engineers and operators with the information they need to monitor the reliability, health, and performance of process instrumentation and to enable the transition from time-based to condition-based maintenance activities. Participate in the discussion with our panel experts on how your plant can take advantage of today's research and development activities to provide the foundation for future advances in safe, efficient, and reliable plant operation.

\*Speakers notated with an asterisk are TIP Award winners

## TUESDAY, AUGUST 16 BREAKOUT SESSION 6: 3:30–5:00 PM

#### EXECUTIVE/RISK MANAGEMENT

### Removing the Roadblocks to a Risk Informed Future

**Session Organizer:** Doug True (Executive VP, Jensen Hughes Power Services) **Participants:** Roy Linthicum (Chairman, Risk Management Subcommittee, PWR Owners Group, Exelon Nuclear), Stuart Lewis (Program Manager, EPRI),Mike Tschiltz (Director, Risk Assessment, NEI) **Room:** Amelia 1

The U.S. industry has been actively employing risk-informed thinking for over 20 years. A risk-informed view illuminates where a plant may have safety weaknesses as well as robustness, a distinction not possible with deterministic techniques alone. Achieving the benefits of such views requires an understanding of the strengths and weaknesses of the deterministic and probabilistic approaches, and openness to the technical value brought by the different perspectives. Experience shows that a risk-informed process leads to improved safety ... it is time to take maximum advantage to help us understand where best to spend our resources in Delivering the Nuclear Promise.

## **OPERATIONS/OPS TRAINING**

### ILT Candidate Success Forecasting

Session Organizer: Darrell Perkins (Senior Operations Manager, ANO, Entergy)
 Participants: RJ Frederes (Corporate Operations Training Manager, Exelon Nuclear), Scotty Scot (Operations Manager, Harris, Duke Energy), Richard Kiss (Manager, Nuclear Training, Clinton Power Station, Exelon Nuclear), George Pickar (Southern Nuclear)
 Room: Ossabaw

Many sites have developed complex (and somewhat burden-some) systems for tracking and forecasting license candidate success. This session will focus on aligning with the Nuclear Promise initiative and measuring and monitoring only those items that provide good forecasting. This discussion will include: forecasting, classroom execution, mentoring, monitoring and selection.

#### **ORGANIZATIONAL EFFECTIVENESS/PERFORMANCE IMPROVEMENT** Organizational Performance Model – An Integrated Approach to Assessments and Performance Improvement

Session Organizer: Becky Salvadore (Director, Performance Improvement, Exelon Nuclear), Jack Popielarski (Fleet Assessment OR SME, Exelon Nuclear)

**Participants:** Mike Smith (Director, Fleet Assessment, Exelon Nuclear) **Room:** Cumberland C

Learn from the pros and hear cutting edge techniques and Exelon's early warning system for identifying early signs of decline and fostering improvement through targeted solutions. Through the DNP focus area of Oversight and Assessment, Exelon has eliminated oversight redundancy. Learn what works and what looked good in design but didn't get the expected results when implemented (aka operating experience). Nuclear operators will not survive in today's environment if faced with costly declines or cyclical plant performance. Exelon's OR&IPA organization has set out to improve performance across our fleet with focus on Organizational Effectiveness and Leadership by providing a comprehensive view of performance, using both analytical and performance-based assessments to monitor performance and organizational health.

## **REGULATORY RELATIONS**

## Improving the Operability Determination Process and Resolving Low Risk Non-Compliances

**Session Organizer:** Marty Murphy (Director, Nuclear Licensing and Regulatory Affairs, Xcel Energy) **Participants:** James Barstow (Licensing Director, ExelonNuclear), William Dean (Director, Office of Nuclear Reactor Regulation, USNRC), Dave Mannai (Senior Manager, Fleet Regulatory Assurance, EntergyNuclear), Larry Nicholson (Director, Licensing & Regulatory Affairs, NextEraNuclear) **Room:** Talbot

Operability determinations and associated resolution of issues must be appropriately balanced to ensure focus remains on safety. The industry is developing guidance to ensure consistent implementation and expectations for operability determinations. Concurrently, the NRC is developing a risk-informed approach to resolve low risk and low safety significance design compliance issues related to technical specification operability. The session will provide insights on the status of the individual initiatives and the intersection between the two initiatives.

### WEDNESDAY, AUGUST 17 BREAKOUT SESSION 7: 10:30 AM-12:00 PM

#### BUSINESS/ENGINEERING/EQUIPMENT RELIABILITY Knowledge Transfer and Retention

Session Organizer: Dan Redden (Sr Engineer, Corporate Engineering, ExelonNuclear), Ted Quinn (President of Technology Resources, ANS Past President), Tim Schlimpert (VP, MCR Performance Solutions)
 Participants: Sudesh Gambhir (Team Leader, INPO), DanRedden(Sr Engineer, Corporate Engineering, Exelon Nuclear), Dave Heler (Manager, NHRG), John Lubinski (Director of Division of License Renewal, NRC)
 Room: Cumberland A

The turnover in engineering disciplines occurring across the industry, including its vendor base, is resulting in a widespread diminishment of engineering knowledge, skill, and proficiency and this has played a key role in consequential events. Within all nuclear plant disciplines and departments, a key organization goal is to develop and implement effective Knowledge Transfer and Retention Programs using formal training and mentoring. These programs are designed to maintain industry, fleet and specific plant expertise to optimize plant safety and performance. The major objective is to support the development of the next generation of site and corporate technical experts for specific topical areas. The Engineering and Licensing disciplines are the most vulnerable. Competency in Design and Licensing bases, Operating Experience, vendor methodologies, etc., is a major element of Engineering and Licensing KT&R. Speakers will address specific plant, fleet and industry lessons learned and best practices as well as INPO's role in supporting the development of computer-based courses, made available to U.S. nuclear utility staff through the INPO NANTEL training system.

## EQUIPMENT INNOVATION/SUPPLY

Accident Tolerant Fuel and Control Room Modernization

Session Organizer: Greg Keller (Director, BD & Marketing, AZZ Nuclear) Participants: Bill Gassman (Senior Staff Engineer, Exelon Nuclear), Curtis Smith (Directorate Fellow, INL), Bruce Hallbert (Director, Nuclear Energy Enabling Technologies, INL) Room: Conference 2-3

Safety is central to the design, licensing, operation, and economics of Nuclear Power Plants (NPPs). Come learn what is happening in the industry in regards to the development of accident tolerant/failure proof fuel. This revolutionary, "game changing" technology is being designed to improve operating safety, reliability, cost effectiveness, and accident tolerance during severe plant events. Listen to what utilities, vendors, and the DOE are doing to make this technology available.

The US Department of Energy's Light Water Reactor Sustainability (LWRS) program includes research and development on advanced instrumentation, information, and controls to address critical gaps in technology development and deployment to reduce risks and costs to nuclear power plant operators. To mitigate the substantial technical, financial, and regulatory risks in a first of a kind control room modernization project, activities are being conducted through a federal-private partnership. This presentation will summarize the ongoing projects with commercial nuclear utilities, the technical and organizational approaches to long term modernization of legacy analog control rooms, and the current status of efforts.

#### **EXECUTIVE/RISK MANAGEMENT**

# Innovative Cross-Functional Engagement Using Risk Informed Initiatives to Deliver the Nuclear Promise

**Session Organizer:** Faramarz Pournia (Engineering Director, Southern Nuclear) **Participants:** Mike Kitlan (Manager Nuclear Engineering, Duke Energy), RickGrantom(President, CRG, LLC), Owen Scott (Principle Engineer, Risk Informed Engineering Department, Southern Nuclear) **Room:** Amelia Ballroom

Risk-informed applications represent unique tools to reduce cost and remove unnecessary burden allowing plants to "shed some excess weight". However industry remains well short of realizing the full potential of risk-informed initiatives. SFCP is little more than half-implemented after ten years, RICT is just getting started, and use of 50.69 remains well below its merit. Common hurdles such as communication challenges, perceived technical complexity and existing inter-organizational interfaces dissuade organizations from adopting the initiatives. Overcoming these challenges involves engaging the right stakeholders, identifying target opportunities, sustaining program ownership, and promoting results achieved. Much is at stake in delivering the Nuclear Promise and the time to fully utilize all of the risk-informed tools available to us is now.

## WEDNESDAY, AUGUST 17 BREAKOUT SESSION 7: 10:30 AM-12:00 PM

### MAINTENANCE/WORK MANAGEMENT

**Open Discussion & Future DNP Activities for Work Management and Maintenance** 

**Session Organizer:** Pete Arthur (Principal Evaluator - A/WM, INPO), Bryant Hearne (Principal Evaluator - MA, INPO) **Participants:** Pete Arthur (Principal Evaluator - A/WM, INPO), Bryant Hearne (Principal Evaluator - MA, INPO) **Room:** Cumberland B

This session will include an open discussion of challenges that stations are facing. INPO 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. This session will also include a wrap up of the discussions related to the Nuclear Promise initiatives discussed during the track.

#### **OPERATIONS/OPS TRAINING** Streamlining the CPE Process

Session Organizer: Bruce Hennigan (Manager, Operations Training Program, Exelon Nuclear) Participants: Scotty Scot (Operations Manager, Harris, Duke Energy), Blaine Peters (Operations Manager, Byron, Exelon Nuclear)

Room: Ossabaw

The CPE process may have opportunities for driving efficiency and better aligning to the Delivering the Nuclear Promise initiative. This session will included a discussion of best practices for CPE readiness that remain in balance with current training and shift commitments. This discussion will include: simulator training, knowledge initiatives, and walkthrough activities.

#### ORGANIZATIONAL EFFECTIVENESS/PERFORMANCE IMPROVEMENT CNO Presentation - Using Training to Advance Safety, Reliability, and Economic Performance

Session Organizer: Hank Nelson (Director, Executive Projects, Palo Verde, APS) Participants: Randy Edington (CNO, Pinnacle West) Room: Cumberland C

Training professionals and anyone wanting to lean their training programs need to attend this session.Randy Edington, CNO-Arizona Public Service (Palo Verde) is one of our industry's strongest supporters of training to improve performance. You will not get this opportunity to talk to the Training Cumulative Impact Initiative Owner anywhere else. Randy will walk you through NEI Efficiency Bulletin 16-11, Training Cumulative Impact Strategies, to help you understand how to streamline administrative activities and improve the quality and efficiency of training. If time permits, Randy will answer your questions on Efficiency Bulletin 16-07, Training Task List Reviews. Learn the details of the DNP Training Project Plan. Get helpful insights on implementing this project at your site from your industry peers and committee members. You will get personal executive-level views on why this Delivering the Nuclear Promise Initiative is important to sustain and improve our industry.

### **REGULATORY RELATIONS**

# Reactor Oversight Process Issues - CDBI and EQ Pilot Inspection Results, PI&R Pilot Inspection and Significance Determination Process Issues

**Session Organizer:** Christopher Nolan (Director, Regulatory Affairs, Duke Energy) **Participants:** William Dean (Director, Office of Nuclear Reactor Regulation, US NRC), Robert Rishel (Director, Probabilistic Risk Assessment, Duke Energy), Joseph Shea (Vice President, Regulatory Affairs, TVA), Timothy Steele (Director, Performance Improvement, Southern Nuclear) **Room:** Talbot

This Reactor Oversight Process (ROP) discussion will explore the results of pilot inspections for the Component & Design Basis Inspection and Environmental Qualification Program Inspection, changes to the Problem Identification and Resolution (PI&R) inspection, and highlights from the Significance Determination Process (SDP) Streamlining. NRC proposed changes to the PI&R inspection procedure to better assess corrective action programs will be discussed. In SDP Streamlining, the panel will explore "readily available information" as well as future changes in the use of Appendix M, crediting FLEX for use in the SDP, and plans for a new SDP to address mitigating strategies.

# ANNOUNCING THE 2016 TIP AWARDS

# RECOGNITION BRINGS REWARDS

very day you bring the best to your job. When it comes to improving safety and efficiency, you are innovative and resourceful leaders in creating the high standards that make the nuclear industry successful. Now all you need to do is tell us about it!

Since 1994, the Top Innovative Practice (TIP) Awards have highlighted and rewarded the new ideas and techniques that you have developed. In seeking and sharing best practices, you help your company have a profound and direct impact on the success of the nuclear energy industry.

Sponsored by the Nuclear Energy Institute (NEI), in conjunction with Nuclear Steam Supply System (NSSS) vendors AREVA, GE Hitachi Nuclear Energy, Westinghouse and Westinghouse Combustion Engineering, the TIP Awards are the nuclear industry's highest recognition of excellence.



## Enter Online

Coming up with the innovation is the hard part. This is the easy part.

Login to www.nei.org. Click on Member Center; Top Innovative Practice Awards.

## **2016 AWARD CATEGORIES**

Thirteen awards will be presented this year.

- 4 NSSS Vendor Awards (\$2,500 each)
- ► AREVA
- GE Hitachi Nuclear Energy
- Westinghouse
- Westinghouse Combustion Engineering

Each NSSS vendor will choose a winner from its group of entries.

- 8 NEI Process Awards (\$2,500 each)
- ► Communications
- Equipment Reliability
- ► Maintenance
- Materials, Management Processes and Support Services
- Nuclear Fuel
- Operate Plant
- Plant Support
- ► Training

Winners will be selected by the TIP Committee an industry panel chaired by NEI—with representation from each NSSS vendor, the Institute of Nuclear Power Operations and the Electric Power Research Institute.

Vision, Leadership and Ingenuity Award Based on the standard TIP judging criteria/metrics, entries that score well but do not win an award may be considered for a Top Innovative Practice Vision, Leadership and Ingenuity Award.

Recognition for vision, leadership and ingenuity will be awarded only when the committee identifies an entry that fit the established criteria. It is not required that a TIP Vision, Leadership and Ingenuity Award recipient be selected each year.

Best of the Best NEI will choose an overall award winner from the NEI Process, NSSS Vendor, or Vision, Leadership and Ingenuity Award winners. The prize is an additional \$5,000 and the B. Ralph Sylvia Best of the Best trophy.

## **AWARD CRITERIA**

The TIP Awards are open to individuals and teams from both domestic and foreign utility members of NEI that have created and implemented transferable new practices—or improved processes and equipment—within the past three years. Entries, which must be submitted online (see below), will be accepted from Nov. 2, 2015, to Jan. 29, 2016.

To be considered for a TIP Award, the entry must be complete, and the new process or practice must be implemented and address the following criteria:

 Safety The entry should maintain or enhance nuclear safety, radiation protection safety and/or industrial safety, as applicable.

 Cost-Savings Impact The entry should include a clear description of how the process or practice demonstrates significant, tangible cost savings. Quantitative or qualitative information should be included.

Productivity/Efficiency The entry should clearly define the measurable increases in employee/organization productivity that were gained. If applicable, state how the improvement was collaborative.

Innovation The entry should illustrate how the improvement is unique. Explain how it offers a fresh approach to a standard problem.

► Transferability The entry should explain how this new knowledge is transferable across the industry or within a fleet.

All TIP Award winners will be recognized at a special gathering during the Nuclear Energy Assembly—the annual meeting of the Nuclear Energy Institute—on May 23-26, 2016, at The Trump National Doral in Miami, FL.

All entries will be posted on the NEI member website.



NUCLEAR ENERGY INSTITUTE

Review the complete Standard Process Definitions. The process categories are aligned with the NEI Standard Nuclear Performance Model.

**Browse** previous winners' project summaries to see a snapshot of past TIP success stories.

**View** previous nominations online to see how past entrants presented their projects. Submit all complete entries via the Internet. No material submitted to NEI will be returned, nor will NEI be responsible for lost or damaged entries.

If you have any questions about the entry process, please contact Suzanne Stuart at 202.739.8005 or *sns@nei.org*.

SPONSORED BY THE NUCLEAR ENERGY INSTITUTE

# **2016** Top Innovative Practice

#### AWARD NAME

Special TIP Award TITLE National Safety Response Center

PLANT NAME Industry Team (Southern Nuclear Operating Company, PIM, AREVA)

UTILITY Strategic Alliance for FLEX Emergency Response (SAFER) Team TFAM

James A. Ripple\*, David Crawley\*, Marty Trum, Danny Brush, Michael Powell\*, John Gideens

**UWC TRACK** Regulatory Relations - Session 3, Amelia Ballroom

AWARD NAME Vision, Leadership & Ingenuity Award

TITLE Nuclear Fleet Continuous Improvement Program

PLANT NAME NextEra Fleet

**UTILITY** NextEra Energy

**TEAM** Frank Burke, Mitchell Goldstein, Pam Metz\*, Fred Cunningham, David Bradford

**UWC TRACK** HU/PI Track- Session 3, Cumberland C

AWARD NAME AREVA Vendor Award

**TITLE** Reactor Coolant Pump Turning Vane Issue

PLANT NAME Surry Power Station UTILITY

Dominion Virginia Power

**TEAM** William Murray, John Lee, Chad R. Conrad, Kayla Harper

AWARD NAME GE Hitachi Vendor Award

TITLE

Hatch Unit 1 Core Shroud Boat Sample and Off-axis UT

PLANT NAME Plant Hatch

UTILITY

Southern Nuclear Operating Co.

#### TEAM

Denver Atwood, Andrew Gordon, DeLisa Pournaras, Eric Stinnett, Kevin White, Carl Hinds, Patrick O'Brien, Paul Johnson

\* Notes TIP Award Winners and the session that they will be participating in at this year's UWC.

#### AWARD NAME

Westinghouse Electric Company Vendor Award

TITLE

Inhibited Advanced Scale Conditioning Agent (iASCA) and Consolidated Deposit Extraction (CODE) Steam Generator Cleaning Application

PLANT NAME Comanche Peak Nuclear Power Plant

**UTILITY** Luminant Energy

**TEAM** Chung Tran, Jim Stevens, Jeremy Swanson, Miles Forney, Danielle Ramaley

#### AWARD NAME

Westinghouse Combustion Engineering Vendor Award TITLE

Steam Generator Examination with Westinghouse Zephyr<sup>®</sup> Advanced Acquisition System

PLANT NAME Palo Verde Nuclear Generating Station

**UTILITY** Arizona Public Service Company

**TEAM** Douglas Hansen, Daniel Carvalho, Jeff Chapla, John Lichauer, Lyman Petrosky

#### AWARD NAME Communications Award

TITLE Watts Bar Unit 2 Stakeholder Outreach Initiative

PLANT NAME Watts Bar Nuclear Plant Unit 2 UTILITY

Tennessee Valley Authority

**TEAM** Steve Higginbotton\*, Scott Brooks, Susan Lauver, Bill Sitton, Kay Whittenburg

**UWC TRACK** Business Track-Session 6, Cumberland A

AWARD NAME

Equipment Reliability Award **TITLE** 

Maintenance Strategy Optimization

PLANT NAME Maintenance Strategy Optimization program

**UTILITY** First Energy Nuclear Operating Company

**TEAM** Dan Phillips, Gerry Balogna, Gerard Freddo, Dennis Schreiner, Sr., Peter Lahoda, Paul Tobin, Jr.\*

UWC TRACK Business Track-Session 6, Cumberland A

AWARD NAME

Maintenance Award

Online Asbestos Abatement Using Innovative Techniques for Preventing Heat Related Injuries

PLANT NAME Cook Nuclear Plant

**UTILITY** American Electric Power

TEAM Bryan Horvath, Jeff LaDuke, Leanne Snyder, John Lamberton, James Petrides, Steven Schenkel

#### AWARD NAME Materials, Management and Support Services Award

TITLE

Risk Assessment Process
PLANT NAME

Exelon Fleet

**UTILITY** Exelon Generation

**TEAM** Andrew Brewer, Kelly Root, Richard Weisband\*, Andrew Winter, Cortt Cousino\*

**UWC TRACK** Executive Track- Session 1, Amelia Ballroom

AWARD NAME Nuclear Fuel Award

TITLE NSF Channel Introduction

PLANT NAME Grand Gulf Nuclear Station

**UTILITY** Entergy

TEAM David Smith, Jim Head, Scott Stanchfield, Paul Cantonwine

AWARD NAME Operate Plant Process Award

TITLE Improved Outage Efficiency and Risk Reduction Using FLEX Portable Equipment

**PLANT NAME** Palo Verde Nuclear Generating Station

**UTILITY** Arizona Public Service Co

TEAM Michael Powell\*, Randall (Gene) Eimar\*, Kevin Graham, Thomas Hook, Jared Schank

**UWC TRACK** Risk Management-Session 1, Talbot

AWARD NAME Plant Support Process Award

**TITLE** Post-Fukushima Seismic Safety

PLANT NAME Industry Team (NEI, EPRI, Dominion Corporation, Southern Nuclear Operating Company, Duke Energy, Talen Energy)

**UTILITY** Seismic Special Operations Team

**TEAM** Timothy Rausch\*, Andrew Mauer, John Richards, Divakar Bhargava\*, Melanie Brown, Southern Nuclear, David Heacock, Robert Keiser, Neil Wilmshurst\*

**UWC TRACK** Business Track-Session 6

**AWARD NAME** Training Award

**TITLE** Optimization of Nuclear Fleet Standard In-Processing

**PLANT NAME** Kings Mountain Training Facility

**UTILITY** Duke Energy Corp.

TEAM

Dale Holden, Daniel Geraghty\*, Keri Hensley\*, Teddy Reed, Aaron Willis, David Conner

UWC TRACK

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Business Track-Session 6, Cumberland A

# **Exhibitors** List

ADZ Booth 403 AECOM Booth 311 Aerofin Booth 210 Aggreko Nuclear Services Booth 213 Allied Technical Resources Inc. Booth 610 Alphasource, Inc. Booth 502 Altran Booth 513 Amec Foster Wheeler Booth 12 Applied Technical Service Booth 612 AREVA Inc. Booth 401 ATC Nuclear Booths 306 & 308 Atkins Booths 413 & 415 AZZ Nuclear | NLI Booths 301, 303 & 305 AZZ WSI Booth 613 Barnhart Booth 105 Bechtel Booth 614 BHI Energy Booth 604 Black & Veatch Booth 101 Black Diamond Services, Inc. Booth 208 Burns & McDonnell Booth 407 BWX Technologies, Inc. Booth 14 CableLAN Products, Inc. Booth 216 Ceradyne, Inc., a 3M Company Booth 113 **Certrec Corporation Booth 09** ChemStaff Booth 601 Copperleaf Technologies Booth 117 Crane Nuclear Inc. Booth 304 Curtiss-Wright Nuclear Division Booth 402 **DataGlance Booth 606** Day & Zimmermann Booth 405 Doosan HF Controls Corp. Booth 508 DRS Consolidated Controls, Inc. Booth 416 Edwards Analysis and Consulting Booth 112 Electrical Builders, Inc. (EBI) Booth 07 **ENERCON Booth 307** Energy Steel & Supply Company Booth 211 **EnergySolutions Booth 505** Engineered Solutions, Inc. Booth 515 Envirovac Holdings, LLC Booths 107, 109 & 111 EPM, Inc. Booth 412 EXCEL Services Corporation Booths 04, 05 & 06 Fibrwrap Construction Services, Inc. Booth 501 Flowserve Corporation Booths 408 & 410 GE Hitachi Nuclear Energy Booth 10 GLSEQ, LLC Booth 206 Goodnight Consulting, Inc. Booth 514 Howden North America Booth 103 Idaho National Laboratory Booth 312 Invensys / Schneider Booth 08

James C. White Company, Inc. Booth 605 Jensen Hughes Booth 603 Joseph Oat Corporation Booth 409 Kiewit Power Nuclear Booth 512 Kinectrics Booths 314 & 316 Konecranes Nuclear Equipment & Services Booth 615 KSB, Inc. Booth 504 L-3 MAPPS Booth 310 Lockheed Martin Booth 102 LPI. Inc. Booth 214 Luminant Generation Company, Power Optimization Center (POC) Booth 116 Mesa Associates Inc. Booth 600 Mitsubishi Electric Power Products. Inc. Booth 510 Mitsubishi Nuclear Energy Systems, Inc Booth 302 National Technical Systems (NTS) Booth 215 New York Blower Company | SSM Industries Booth 406 Northrop Grumman Booth 212 Nuclear News Booth 02 Nuclear Plant Journal Booth 411 Nutherm International, Inc. Booth 114 **Onet Technologies Booth 414** P1 Group, Inc. Booth 609 Premier Technology, Inc. Booth 315 PSC Booth 507 & 509 Radiation Protection Systems, Inc. Booth 209 **RCS Corporation Booth 506** ReNuke Services, Inc. Booth 13 **Rolls-Royce Booth 309** RSCC Wire & Cable, LLC Booth 205 S&ME, Inc. Booth 104 Saulsbury Industries Booth 608 Seitz Valve Booth 516 Structural Group Booth 607 Structural Integrity Associates, Inc. Booth 511 Sulzer Pumps Booth 404 SWI Booth 611 System One Booth 207 Team Furmanite Booth 106 TECNATOM, S. A. Booth 108 Teledyne Brown Engineering Booth 204 Thermo Fisher Scientific Booth 203 Tobolski Watkins Engineering Inc. Booth 110 Toshiba America Energy Systems Corporation Booth 503 UniTech Services Group Booth 313 United Controls International (UCI) Booth 01 ValvTechnologies Booth 202 Williams Industrial Services Group, LLC Booth 11 Zachry Group Booth 201

# **ANS** 2016 Utility Working Conference Vendor Technology Expo

Omni Island Plantation Resort Amelia Island, Florida

## **EXPO HOURS:**

6:00 pm-8:00 pm
7:30 am-4:30 pm
7:30 am-7:30 pm
7:30 am-9:00 am



# Exhibitors

#### 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

#### 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 210)

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.

#### Aggreko Nuclear Services Houston, TX (Booth 213)

Aggreko Nuclear Services is the subject matter expert in temporary Power and Cooling systems augmentation for nuclear plant projects. Our unique combination of design services, specialized rental fleet and RWT trained technicians allows rapid implementation of temporary alternate systems. With over 200 equipment depots and more than 7,000 employees globally, we have the people and experience to solve problems, create opportunities, and reduce risk at your plant.

#### Allied Technical Resources Inc. Charlotte, NC (Booth 610)

Allied Technical Resources, Inc. has supported the industry with quality professional and technical staffing since 1988. The four executives have 120+ years of experience with each working for A/E firms, Utilities, and NSSS providers, thus we nderstand our customer's goals. We are recognized as a preferred provider for cost competitive solutions.

#### 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.

#### Altran

#### Bordentown, NJ (Booth 513)

Altran is a premiere provider of engineering and technical services to nuclear facilities providing specialty engineering services in the following areas:

- Engineering Programs
- Digital Instrumentation and Controls
- Engineering Mechanics & Electrical Engineering

• Materials Engineering and Failure Analysis Laboratory Altran's 10 CFR Appendix B QA Program is NUPIC audited.

#### Amec Foster Wheeler Tucker, GA (Booth 12)

For more than 60 years, Amec Foster Wheeler has occupied a significant position in the commercial nuclear market in the US, the UK and Canada. We have more than 3,000 specialists dedicated to the nuclear power industry, providing services from site hazard assessment to operating nuclear power plants technical support and project management to site remediation.

#### Applied Technical Service Greenville, SC (Booth 612)

ATS is a materials testing and Non-destructive Testing firm with extensive testing services and inspection capabilities. Since our founding in 1967, we have grown to perform all phases of field and lab non-destructive testing, which also include Rope Access Inspection, Tank Inspection, Weld Inspection (CWI and Visual), API Inspection, 510, 570, and 653. ATS has 30 office located in the US. ATS is NIAC and NUPIC qualified.

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

AREVA Inc. combines U.S. and Canadian leadership to supply high added-value products and services to support the operation of the commercial nuclear fleet. AREVA is recognized by utilities around the world for its expertise, its skills in cutting-edge technologies, and its dedication to the highest level of safety.

#### ATC Nuclear

#### Oak Ridge, TN (Booths 306 & 308)

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 (Booths 413 & 415)

At Atkins, we build long-term trusted partnerships to create a world where lives are enriched through the implementation of our ideas - providing a unique blend of Nuclear Safety, Licensing, Safeguards and Security, and Operations and Readiness specialty services; Environmental Assessment and Permitting, Radioactive Waste Management, and Radiological Assessment expertise and systems; and world-class Project, Cost and Commercial Management services and tools needed to truly deliver the nuclear promise of reliable and competitive power.

#### AZZ Nuclear | NLI Fort Worth, TX (Booths 301, 303 & 305)

NLI is a supplier of equipment, service, and engineering to the nuclear industry. NLI offers a wide array of electrical, mechanical, I&C, and HVAC products and services under its 10CFR50 Appendix B QA Program and ASME III N-Stamp.

#### AZZ WSI

#### Norcross, GA (Booth 613)

AZZ I WSI is a global specialty welding and industrial operating company with more than 35 years of experience and expertise in solving critical energy industry issues that are safety, schedule and quality critical – including maintenance, repair, replacement, and Stress Corrosion Cracking (SCC) solutions/services for the nuclear power industry.

#### 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 614)

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**

#### Weymouth, MA (Booth 604)

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 Power, Oil & Gas, 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. Supported by flexible contracting models, we work closely with our clients to execute projects of all sizes and complexities. Visit www.bv.com/nuclear for more information.

# Black Diamond Services, Inc. Grayslake, IL (Booth 208)

Black Diamond Services (BDS) is one of the leading providers of project management and technical services for complex capital and O&M improvement projects for the nuclear industry. BDS has specialized resources that have been in key leadership positions on Decommissioning Projects, Large Component Replacement Projects, Major Plant Modifications for Operating Plants. BDS is a privately owned company that is largely committed to work in the nuclear power industry. www.blackdiamondservices.com

#### Burns & McDonnell Kansas City, MO (Booth 407)

Burns & McDonnell comprises more than 5,000 engineers, architects, construction professionals, scientists, consultants and entrepreneurs. We strive to create amazing success for our clients and amazing careers for our employee-owners. We are steadfast in our mission to make our clients successful. For more information, visit burnsmcd.com.

#### 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.

## CableLAN Products, Inc. Norfolk, MA (Booth 216)

www.cablelannuclear.com

Since 1979, CableLAN Nuclear has been the leading supplier of fiber optic and communications cable for nuclear power plants worldwide. We also supply patch panels, cable assemblies, patch cords, etc., for these applications. Our fiber optic cable partner, Prysmian/Draka, is the world's premier manufacturer of radiation resistant optic fibers, with demonstrated performance for 60 years. The cables meet or exceed the requirements of nuclear standards, and are produced using NQA-1 and Appendix B requirements.

#### Ceradyne, Inc., a 3M Company Quapaw, OK (Booth 113)

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

#### 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.

## ChemStaff

#### Joliet, IL (Booth 601)

ChemStaff is an Engineering consulting company for the global power industry with core expertise in Power Plant Chemistry, Engineering, Environmental, and Health Physics Programs. ChemStaff's is comprised of 40+ full-time and contract employees with over 800 years of power plant experience. Expertise areas include Chemistry/Radiochemistry, Engineering, Thermal efficiency improvement, Laboratory and Environmental, and Source term reduction/dose control. As industry leaders, ChemStaff incorporates deep nuclear plant knowledge and process implementation skills into their chemistry program solutions.

#### Copperleaf Technologies Vancouver / BC / Canada (Booth 117)

Copperleaf provides decision analytics to companies managing critical infrastructure. Our enterprise software solutions leverage operational and financial data to help our clients make investment decisions that deliver the highest business value. We are committed to building a better world, one decision at a time. For more information, visit www.copperleaf.com.

#### Crane Nuclear Inc. Kennesaw, GA (Booth 304)

CRANE Nuclear designs & manufactures a variety of valves, Gate, Globe, Plug, & check valves. We manufacture diagnostic equipment for MOV's, AOV's and Check Valves, Votes® Infinity, Viper, & Powerhouse. We as well offer complete valve services solutions that'll ensure nuclear plant safety, for MOV's, AOV's, and check valves. www.cranenuclear.com

#### Curtiss-Wright Nuclear Division Brea, CA (Booth 402)

Curtiss-Wright Nuclear Division provides innovative, highly engineered solutions that meet the challenge of the Nuclear Promise. Our advanced innovative technologies support extended plant life, outage improvements, obsolescence, electronic work packages, complex data analysis, equipment reliability, dose reduction, inspection analysis, PRA/HRA, critical path time

#### DataGlance Fremont, CA (Booth 606)

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.

#### 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

#### DRS Consolidated Controls, Inc. Danbury, CT (Booth 416)

DRS Consolidated Controls, Inc. (DRS-CCI) has been a premier supplier of Class 1E and non-1E Instrumentation and Control (I&C) systems and sensors to the nuclear industry for more than sixty years. DRS-CCI designs, qualifies, and manufactures systems and sensors for both commercial nuclear power plants and the U.S. Navy.

#### Edwards Analysis and Consulting State College, PA (Booth 112)

Edwards Analysis and Consulting emphasizes digital control and safety system software. Safety Systems require NRC licensing. The owner converted the Oconee Bailey ICS to C and interfaced it to TRAC. Testing safety systems with NRC approved analysis is needed for licensing. The company knows how to get digital safety licensed!

#### 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, had a warranty claim, and are 7+ years safe.

#### ENERCON

#### Kennesaw, GA (Booth 307)

Enercon Services, Inc. (ENERCON) is an architectural engineering, environmental, technical and management services firm known for innovation, excellence, responsiveness and commitment. With 30 strategically located offices and over 1800 professionals, ENERCON provides a broad range of professional services to private, public, and government sector clients throughout the United States and internationally.

#### Energy Steel & Supply Company Lapeer, MI (Booth 211)

#### www.energysteel.com

Energy Steel serves the nuclear industry exclusively, providing expertise in OEM part obsolescence, pressure vessels, heat exchangers, pumps, fabricated structural supports and specialty machined components. Energy Steel emphasizes quality first, maintaining the highest certifications including ASME code N, NPT, NS, NA, U certificates and National Board R, NR certificates. We offer solutions that bundle engineering and equipment with the support of over 90 degreed engineers. We stand ready to support your next major project.

Contact:

David Jaumotte, Sales Manager- djaumotte@energysteel.com 810-538-4975

#### EnergySolutions Oak Ridge, TN (Booth 505)

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.

#### Engineered Solutions, Inc. Athens, AL (Booth 515)

Engineered Solutions, Inc. established in 1987, as a consortium of power industry professionals with considerable knowledge and experience in plant operations, design, implementation and testing. Engineered Solutions nuclear industry experience allow us to provide diverse engineering services with proven industrial products and systems for the power utility and process control industries.

#### Envirovac Holdings, LLC Garden City, GA (Booths 107, 109 & 111)

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

#### Framingham, MA (Booth 412)

EPM is a multi-discipline engineering company that provides services in fire safe shutdown analysis, fire protection, PRA/PSA, risk management and engineering and software solutions to clients throughout the world. We provide assistance in addressing issues related to regulatory compliance, engineering programs, such as design basis development and certification, Environmental Qualification (EQ), Component Classification (Q-list), Cyber Security, Maintenance rule licensing, and configuration management for operating nuclear power plants, as well restart and new and decommissioning plants.

#### 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.

# Fibrwrap Construction Services, Inc. St. Louis, MO (Booth 501)

Fibrwrap Construction renews the lifecycle of structures and piping systems using advanced composite epoxy and carbon fiber based system. Our unique, turn-key approach includes engineering, material manufacturing and installation services. Our nuclear applications are on buried and above ground piping systems and on structures such as tanks, walls, columns and slabs.

#### Flowserve Corporation Charlotte, NC & Vernon, CA (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.

#### 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.

#### GLSEQ, LLC Huntsville, AL (Booth 206)

GLSEQ, LLC is celebrating its 24th year serving the nuclear industry. GLSEQ, LLC is highlighting its Core competencies: Equipment Qualification, Seismic Qualification, Commercial Grade Dedication, EQ Training, and its nuclear instruments: Severe Accident Instruments: IS-SAIL<sup>™</sup> and Condition Monitoring Instruments: M-FI<sup>™</sup>. IS-SAIL<sup>™</sup> includes Hydrogen, Oxygen, Temperature, and Pressure Sensors.

#### Goodnight Consulting, Inc. Ashburn, VA (Booth 514)

Goodnight Consulting is a management consultancy that serves power industry clients around the world. Our consulting team includes experts with a wide range of technical, managerial, and executive experience. Goodnight Consulting has a strong and familiar brand in the global electric power industry. We Assess, Plan, and Implement - You Improve, Save, and Comply. www.goodnightconsulting.com

# Exhibitors

#### Howden North America Columbia, SC (Booth 103)

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 312)

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 Lake Forest, CA (Booth 08)

Schneider-Electric Nuclear provides a wide portfolio of recognized brands, to enable fully integrated Digital Upgrade I&C and Electrical Solutions to the Global Nuclear Industry that maximize availability and utilization of plant assets. Schneider– Electric's booth will display the approved 1E TRICON and the Foxboro I/A Digital Feed-water Upgrade technology along with information on other brands offered across the portfolio.

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

The manufacturer of TUBETRACK<sup>®</sup> and CABLE-RACE<sup>®</sup>, 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).

#### Jensen Hughes

#### Oakbrook Terrace, IL (Booth 603)

JENSEN HUGHES is a global leader in specialty engineering and consulting services for the built environment. We are a company of engineers, consultants, and scientists focused on evaluating risks and diligently developing the best, most cost effective solutions. We offer extensive, practical experience through countless projects, research and industry innovation. Our global clients include Fortune 500 companies and cover the following sectors: energy, corporate real estate, education, government, healthcare, hospitality, industrial, military, and transportation.

#### Joseph Oat Corporation Camden, NJ (Booth 409)

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, coolers, pressure vessels, tanks, spent fuel canisters, and special 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<sup>®</sup>.

#### Kiewit Power Nuclear Lenexa, KS (Booth 512)

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 Early Contractor Involvement, full EPC services, maintenance/modifications, and decommissioning.

#### **Kinectrics**

#### Ontario, Canada (Booths 314 & 316)

Kinectrics' internationally-recognized team of engineers and scientists offer expert capabilities and advanced lab facilities for radioactive materials and analytical chemistry testing, materials characterization, nuclear waste management, fuel channels, and licensing support. We provide complete services for EQ and CGD, inspection and maintenance systems, and leading-edge nuclear inspection tooling. www.kinectrics.com www.kinectrics.us

#### Konecranes Nuclear Equipment & Services New Berlin, WI (Booth 615)

As the world leader in the production and service of nuclear cranes and equipment, Konecranes engineers, manufactures, 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 504)

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 310)

When you are looking for increased reliability in your power plant's performance, you can count on L-3 MAPPS' simulation experience to get you there. Our dedication to true-to-life power plant simulators ensures that your personnel have the knowledge required to safely and efficiently operate your power plant.

#### Lockheed Martin Archbald, PA (Booth 102)

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that - with the addition of Sikorsky - employs approximately 126,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

## LPI, Inc.

#### New York, NY (Booth 214)

LPI, Inc. is an engineering consulting firm using advanced analytical techniques, tools, and instrumentation for fatigue, failure, & material analysis, Fitness-for-Service assessments, and nondestructive examination to assess and deliver to our clients the most accurate and economical solutions to both simple and complex engineering problems. www.lpiny.com

## Luminant Generation Company, Power Optimization Center (POC)

#### Dallas, TX (Booth 116)

Our advanced monitoring and diagnostics platform delivers 24x7 real-time operational support, leveraging more than a decade of operating experience, proven software applications and well-defined processes and procedures, enabling our customers to increase efficiency and reliability of their assets to maximize MWs, minimize costs and deliver on the nuclear promise.

#### 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 510)

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 302)

Mitsubishi Nuclear Energy Systems, Inc. (www.mnes-us.com), the U.S. nuclear operations for Mitsubishi Heavy Industries, Ltd., offers advanced nuclear services, inspection technologies and components. Mitsubishi is the world leader in nuclear Water Jet Peening solutions with 15 years of field proven experience through 45 international projects.

#### National Technical Systems (NTS) Huntsville, AL (Booth 215)

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 I SSM Industries Willowbrook, IL (Booth 406)

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.

#### Northrop Grumman Linthicum, MD (Booth 212)

Northrop Grumman is a leading global security company providing innovative systems, products and solutions in autonomous systems, cyber, C4ISR, strike, and logistics and modernization to government and commercial customers worldwide.

Please visit www.northropgrumman.com for more information.

#### Nuclear News LaGrange Park, IL (Booth 02)

*Nuclear News* is the monthly membership magazine of the American Nuclear Society (ANS) and is recognized worldwide as the flagship trade publication serving the nuclear power field. News reports cover plant operations, maintenance, security, international developments, waste management, fuel, and industry. The magazine has been published by ANS since 1959.

#### Nuclear Plant Journal Downers Grove, IL (Booth 411)

Nuclear Plant Journal, a US publication now in its 34th 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; facebook. com/nuclearplantjournal; youtube.com/user/nuclearplantjournal; twitter.com/npjtweet. Representatives: Newal Agnihotri and Michelle Gaylord.

#### Nutherm International, Inc. Mt. Vernon, IL (Booth 114)

Nutherm International, Inc. established in 1979, is dedicated to providing 1E products to the nuclear power industry. Nutherm's 1E products have evolved to include electrical power distribution equipment, control and instrumentation panels, instruments and instrumentation systems and over 8000 qualified parts and assemblies.

# Exhibitors

#### Onet Technologies Marseille, France (Booth 414)

Major actor of the French and European nuclear market, ONET develops genuine reactor solutions for complex maintenance, safety upgrade modifications, long-term operations, primary loop component replacement for PWR as well as nuclear materials handling and management. With the recent acquisition of EPM Inc. in the US, ONET continues its international development to offer proven solutions to utilities in North America.

#### P1 Group, Inc. Lenexa, KS (Booth 609)

P1 Group Inc. supplies the nuclear industry with electrical, mechanical, welding, and professional staffing expertise, including fabrication capabilities. Whether it is maintenance or shutdown work for a nuclear power plant, you can be sure you are working with a professional, experienced company dedicated to quality and safety.

#### Premier Technology, Inc. Blackfoot, ID (Booth 315)

Premier Technology, Inc. is a women-owned company, providing innovative solutions to nuclear industries. Our Quality Assurance Program includes a NQA-1 certificate, ASME Section III and (U-S-R) stamps, is NUIPC audited and more. With 210,000 square feet for manufacturing, Premier offers engineering, fabrication, machining, industrial coatings, NDE, I&C, and CGD services.

#### PSC

#### East Chicago, IN (Booths 507 & 509)

For 30 years, PSC has provided nuclear plants with engineered solutions, highly skilled craft, heavy rigging and hauling equipment. In 2015, we unveiled the patent-pending PIPE MODULAR LIFT SYSTEM which makes it faster, easier and safer to access elevated equipment hatches. PSC specializes in solutions for challenging projects.

# Radiation Protection Systems, Inc. Groton, CT (Booth 209)

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.

#### RCS Corporation Charlotte, NC (Booth 506)

RCS Corporation is a staffing solutions provider for best-ofclass companies with an emphasis in the Energy Industry. RCS recruits top talent for direct hire and contract staffing positions, as well as provides payroll services. Recruiting specialties consist of Engineering Disciplines, Project Management, Project Controls, Information Technology, Construction Management, Operations Management and Business Professionals.

#### ReNuke Services, Inc. Oak Ridge, TN (Booth 13)

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 309)

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 205)

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

#### S&ME, Inc. Raleigh, NC (Booth 104)

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 608)

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.

# Exhibitors

#### Seitz Valve Wetzikon Switzerlan

### Wetzikon, Switzerland (Booth 516)

Seitz Valve, Switzerland is a lead provider of class 1E solenoid operated valves (SOVs) for nuclear power plants all over the world. Seitz Valve products have 40 years of successful operation in NPPs with no reported or known malfunction. Please feel free to visit our website at http://www.seitz.ch/en/home.html

#### Structural Group Columbia, MD (Booth 607)

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 511)

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 404)

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

#### Ontario, Canada (Booth 611)

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

#### System One Pittsburgh, PA (Booth 207))

For more than 35 years, System One has delivered a full suite of staff augmentation, managed staffing, quality assurance, quality control, and NDE solutions to nuclear power producers, utilities, OEMs, EPCs, and service providers. We support the full production lifecycle, from licensing and construction to operations and maintenance. www.systemoneservices.com.

#### Team Furmanite Houston, TX (Booth 106)

Team Furmanite monitors, maintains and renews energy, industrial and municipal infrastructures through a wide portfolio of specialty mechanical products and services. The company serves a broad range of industry sectors: including refining, offshore, sub-sea, nuclear, pipeline, power generation, chemical, petrochemical, pulp and paper, water utilities, mining, marine and steel manufacturing.

#### TECNATOM, S. A. Madrid, Spain (Booth 108)

TECNATOM is an engineering company owned by the Spanish Electricity Utilities that provides products & services to the nuclear industry since 1957. Its main technical capabilities are: Inspection & Structural Integrity, Testing, Plant Operational Support, Training Centres, Development & Manufacture of Equipment & Systems, Long Term Operation, New Comers, Safety Management and Emergency Response, carrying out projects in a wide range of technological areas for all type of reactors in more than 30 countries worldwide.

#### Teledyne Brown Engineering Huntsville, AL (Booth 204)

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 San Diego, CA (Booth 203)

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 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.

#### Tobolski Watkins Engineering Inc. San Diego, CA (Booth 110)

Tobolski Watkins Engineering, Inc. (TWEI), is a structural engineering firm with diverse experience in design, analysis, construction, and consulting. From seismic design to anti-terrorism/force protection, tornado missile impact evaluation to seismic certification of nonstructural components, we provide innovative and practical solutions to complex problems that maximize project value.

#### Toshiba America Energy Systems Corporation Charlotte, NC (Booth 503)

Toshiba America Energy Systems (TAES) Corporation is a fully integrated provider of turbine/generator equipment and services for the power generation industry, including thermal, hydro and nuclear power plants. We pride ourselves on being a technology leader, providing cost-effective, timely and sustainable solutions that address current and future power generation needs.

#### UniTech Services Group Springfield, MA (Booth 313)

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 01)

For over 40 years, United Controls International has delivered "The Quality Behind the Power" to a global nuclear clientele. Some of our services include: commercial grade dedication, harsh environment qualification, testing services, engineering services, motor services, and panel and MCC design/fabrication/ integration, all performed under our NQA-1, 10CFR50 Appendix B, and ISO 9001 quality program.

#### 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.

#### Williams Industrial Services Group, LLC Tucker, GA (Booth 11)

Williams founded in 1958, provides a comprehensive range of industrial maintenance, modification and construction services to the Power Generation, Pulp & Paper, Chemical, Refining, Manufacturing and other industrial markets. The service disciplines have ranged from mechanical, electrical, and civil scopes in addition to specialty services such as coatings applications, lead and asbestos abatement, insulation, valve maintenance and repair, roofing systems, and fire protection.

### Zachry Group Stonington, CT (Booth 201)

Zachry Group 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<sup>™</sup>, RELAP, RETRAN, RADTRAD-NAI<sup>™</sup>, and CentralStor<sup>™</sup>, as well as modification package development. For more information please visit www.ZachryGroup.com and www.numerical.com.

# Vendor Raffle Schedule

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 pm. on Tuesday. Winners will be selected and announced at each individual booth between 5:15 and 7:30 pm. (*Please refer to the raffle schedule below*). You must be present to win. All registered attendees are invited.

#### AISLE 100: 5:15-5:25 PM

- 101 Black & Veatch
- 103 Howden North America
- 104 S&ME, Inc.
- 107, 109 & 111 Envirovac Holdings, LLC
  - 110 Tobolski Watkins Engineering Inc.
  - 112 Edwards Analysis and Consulting
  - 113 Ceradyne, Inc., a 3M Company
  - 114 Nutherm International, Inc.

#### AISLE 600: 5:35-5:45 PM

- 601 ChemStaff
- 603 Jensen Hughes
- 605 James C. White Company, Inc.
- 606 DataGlance
- 607 Structural Group
- 608 Saulsbury Industries
- 609 P1 Group, Inc.
- 610 Allied Technical Resources, Inc.
- 611 SWI

#### AISLE 200: 5:55-6:10 PM

- 201 Zachry Group
- 202 ValvTechnologies
- 203 Thermo Fisher Scientific
- 205 RSCC Wire & Cable, LLC
- 206 GLSEQ, LLC
- 208 Black Diamond Services, Inc.
- 209 Radiation Protection Systems, Inc.
- 211 Energy Steel & Supply Company
- 214 LPI, Inc.
- 216 CableLAN Products, Inc.

### AISLE 500: 6:15-6:25 PM

- 502 Alphasource, Inc.
- 503 Toshiba America Energy Systems Corporation
- 505 EnergySolutions
- 506 RCS Corporation
- 507 & 509 PSC
  - 508 Doosan HF Controls Corp.
  - 513 Altran
  - 515 Engineered Solutions, Inc.

## FOYER: 6:35-6:45 PM

- 1 United Controls International (UCI)
- 2 Nuclear News
- 04, 05 & 06 EXCEL Services Corporation
  - 7 Electrical Builders, Inc. (EBI)
  - 8 Invensys/Schneider
  - 9 Certrec Corporation
  - 10 GE Hitachi Nuclear Energy
  - 11 Williams Industrial Services Group, LLC
  - 14 BWX Technologies, Inc.

### ASILE 300: 6:55-7:05 PM

- 302 Mitsubishi Nuclear Energy Systems, Inc. 301, 303 & 305 AZZ Nuclear | NLI
  - 304 Crane Nuclear Inc.
  - 306 & 308 ATC Nuclear
    - 309 Rolls-Royce
    - 311 AECOM
    - SII ALCOM
    - 313 UniTech Services Group
  - 314 & 316 Kinectrics

#### AISLE 400: 7:10-7:20 PM

- 402 Curtiss-Wright Nuclear Division
- 404 Sulzer Pumps (US) Inc.
- 405 Day & Zimmermann
- 407 Burns & McDonnell
- 408 & 410 Flowserve Corporation
- 409 Joseph Oat Corporation
  - 412 EPM, Inc.
- 413 & 415 Atkins
  - 414 Onet Technologies
  - 416 DRS Consolidated Controls, Inc.

#### 7:20-7:30 PM

ANS announces winners for Passport to Prizes.



# 2016 Utility Working Conference and Vendor Technology Expo

Our most sincere thanks to the following contributors for their support of the 2016 UWC Golf Tournament



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# **ANS** Meetings

# 2016

## **TOFE 2016**

22<sup>nd</sup> Topical Meeting on the Technology of Fusion Energy AUGUST 22-25, 2016 PHILADELPHIA, PA

# Top Fuel 2016

SEPTEMBER 11-15, 2016 BOISE, ID

## Advances in Nuclear Nonproliferation Technology and Policy Conference

SEPTEMBER 25-30, 2016 SANTA FE, NM

## ANS Winter Meeting and Nuclear Technology Expo

NOVEMBER 6-10, 2016 LAS VEGAS, NV

## Embedded Topical: HTR2016

International Topical Meeting on High Temperature Reactor Technology NOVEMBER 6-10, 2016 LAS VEGAS, NV

# Visit www.ans.org for more details

# 2017

# **CONTE 2017**

**Conference on Nuclear Training and Education** FEBRUARY 5-8, 2017 JACKSONVILLE, FL

# Nuclear and Emerging Technologies for Space

FEBRUARY 27-MARCH 2, 2017 CAPE CANAVERAL, FL

# **IHLRWM 2017**

**International High-Level Radioactive Waste Management** APRIL 9-13, 2017 CHARLOTTE, NC

# **ANS Annual Meeting**

JUNE 11-15, 2017 SAN FRANCISCO, CA

# **Embedded Topical**

**10th International Topical Meeting on Nuclear Plant Instrumentation, Control and Human Machine Interface Technology** JUNE 11-15, 2017 SAN FRANCISCO, CA

# AccApp'17

13<sup>th</sup> International Topical Meeting on Nuclear Applications of Accelerators JULY 31-AUGUST 4, 2017 QUEBEC, CANADA

## UWC 2017

**Utility Working Conference and Vendor Technology Expo** AUGUST 6-9, 2017 AMELIA ISLAND, FL

# Notes

# Notes







# Utility Working Conference and Vendor Technology Expo

August 14-17, 2016 Omni Amelia Island Plantation Amelia Island, FL



American Nuclear Society 555 N. Kensington Ave. La Grange Park, IL 60526 www.ans.org