ANS Conference

2014 Utility Working Conference and Vendor Technology Expo

Celebrating 20 Years

Official Program

Cost-Effective Excellence

USA
UTILITIES SERVICE ALLIANCE

OMNI Amelia Island Plantation

Amelia Island, FL

August 10-13, 2014

ANS Conference

2014 Utility Working Conference and Vendor Technology Expo

Our most sincere thanks to the following contributors for their support of the 2014 Utility Working Conference and Vendor Technology Expo

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Sunday, August 10, 2014

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Monday, August 11, 2014

Tennessee Valley Authority
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Rolls-Royce
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Westinghouse Electric Company
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Tuesday, August 12, 2014

Sargent & Lundy
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Lockheed Martin
Sponsor of the Mid-Morning Refreshment Break

Celebrating 20 Years

The history of the Utility Working Conference:

In 1994, a small but determined group of leaders within the Operations and Power Division of the American Nuclear Society (ANS) conducted the first Utility Working Conference (UWC) in answer to the following questions:

1. How can the combined perspectives of various utility leaders be focused onto the most immediate needs and most challenging issues currently facing the ever-changing nuclear industry?
2. How can the collected insights from a broad cross section of nuclear experts be shared in frank and timely dialog without the burden of formal presentations or unnecessary organizational barriers?
3. How can pertinent information about significant achievements and successes be effectively disseminated to others having similar requirements and resource limitations?
4. What mode of communication most efficiently satisfies all these objectives in a venue conducive to working, sharing and learning?

The result was a small conference attended by fewer than 200 that many quickly recognized to be a powerful venue for sharing expertise, experience and learning.

Since that first small conference in Amelia Island, FL, the UWC has grown into a major industry meeting. Well over 650 industry professionals attended the 2013 conference with 99 vendors exhibits in the Technology Expo.

We celebrate our 20 Years of collaboration by returning to where it all began – Amelia Island!

Symbolism in the UWC Logo:

- The outer circle represents the world and emphasizes that any problem that happens at any nuclear plant anywhere in the world affects every nuclear plant in the world.
- The inner circle represents the smaller nuclear community to remind us that, although we are part of the world, we are different from the rest of the world by necessity because nuclear is different and requires that we be different.
- The two primary colors are green and blue, for the green earth and the blue skies, to emphasize that nuclear is a clean source of energy.
- Two transmission towers separate "American Nuclear Society" from "Utility Working Conference" to emphasize that the focus on the safe, reliable, and economical production of electricity distinguishes this meeting from the larger goals of the Society.
- Within our nuclear community, the two individuals are sharing an idea, symbolized by the "i" as the nucleus in a common thought bubble with each person contributing via the multi-banded orbitals emanating from their heads. This collaborative sharing of an idea is the true mission of the UWC.
- One multi-banded orbital represents the different factions of ANS (i.e., OPD, Local Sections (especially Plant Branches), and Student Sections) that have an interest in the success of mission of the UWC, with OPD being the broader center band because OPD is responsible for the technical quality of the meeting.
- The other multi-banded orbital represents the different sectors of the nuclear industry (i.e., plant owners, vendors, and regulators) that have an interest in the success of the mission of the UWC, with the plant owners being the broader center band because they are responsible for the safe operation of the plants.

The only thing that remains as an unexplained exercise for the curious is, "Why is color of the 'i', the idea, orange?"

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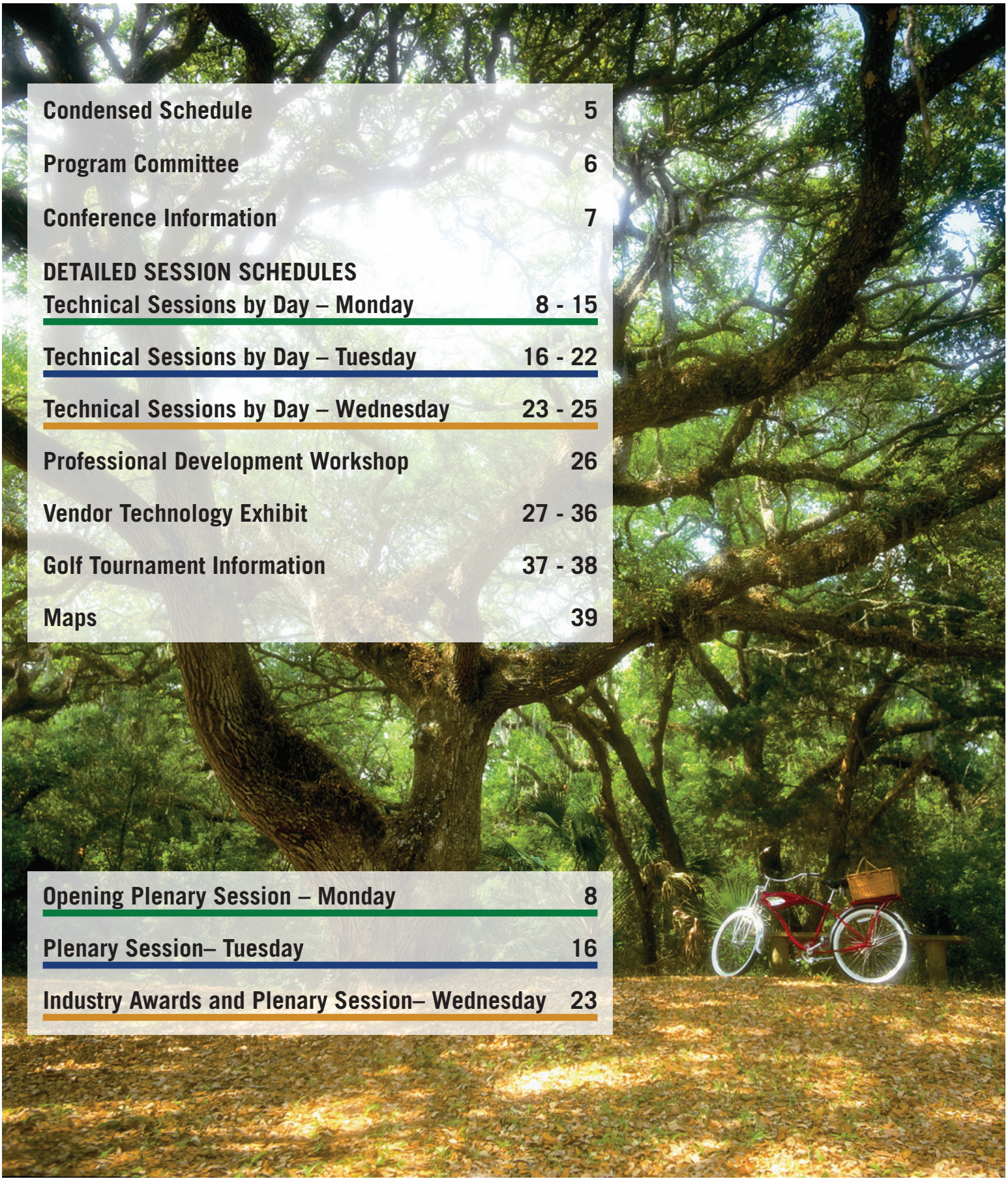

SUNDAY, AUGUST 10, 2014

8:00 a.m.	Golf Tournament "Grab & Go" Breakfast - *Sponsored by System One*
12:00 p.m. – 2:00 p.m.	UWC Golf Tournament Awards Luncheon - *Sponsored by Schneider Electric*
3:00 p.m. – 7:00 p.m.	Meeting Registration
6:00 p.m. – 8:00 p.m.	Student Design Competition
6:00 p.m. – 8:00 p.m.	Opening Reception in the Vendor Technology Expo
6:00 p.m. – 10:00 p.m.	Vendor Technology Expo
8:00 p.m. – 10:00 p.m.	Cordial & Dessert Reception in the Vendor Technology Expo

MONDAY, AUGUST 11, 2014

7:00 a.m. – 5:00 p.m.	Meeting Registration
7:30 a.m. – 8:30 a.m.	Continental Breakfast in the Vendor Technology Expo - *Sponsored by Tennessee Valley Authority*
7:30 a.m. – 4:30 p.m.	Vendor Technology Expo
8:30 a.m. – 10:00 a.m.	Opening Plenary: ***Cumulative Impacts; Back to Cost-Effective Excellence***
10:00 a.m. – 10:30 a.m.	Refreshment Break in the Vendor Technology Expo - *Sponsored by Rolls-Royce*
10:30 a.m. – 12:00 p.m.	Technical Sessions
12:00 p.m. – 1:30 p.m.	Walk-Around Luncheon in the Vendor Technology Expo - *Sponsored by Westinghouse Electric Company*
1:30 p.m. – 3:00 p.m.	Technical Sessions
3:00 p.m. – 3:30 p.m.	Afternoon Refreshment Break in the Vendor Technology Expo
3:30 p.m. – 5:00 p.m.	Technical Sessions

TUESDAY, AUGUST 12, 2014

7:00 a.m. – 8:00 a.m.	Sunrise Breakfast - *Sponsored by Sargent & Lundy*
7:00 a.m. – 5:00 p.m.	Meeting Registration
7:30 a.m. – 7:00 p.m.	Vendor Technology Expo
8:00 a.m. – 10:00 a.m.	Plenary Session: ***The Vendor's Role in Partnering for Cost-Effective Excellence***
10:00 a.m. – 10:30 a.m.	Refreshment Break in the Vendor Technology Expo - *Sponsored by Lockheed Martin*
10:30 a.m. – 12:00 p.m.	Technical Sessions
12:00 p.m. – 1:30 p.m.	Walk-Around Luncheon in the Vendor Technology Expo
1:30 p.m. – 3:00 p.m.	Technical Sessions
3:00 p.m. – 3:30 p.m.	Afternoon Refreshment Break in the Vendor Technology Expo
3:30 p.m. – 5:00 p.m.	Technical Sessions
5:00 p.m. – 7:00 p.m.	Cocktail Reception & Vendor Raffle in the Vendor Technology Expo
7:30 p.m. – 10:30 p.m.	EXCEL Services Corporation Evening Event *"An Evening in Margaritaville"*

WEDNESDAY, AUGUST 13, 2014

7:00 a.m. – 1:00 p.m.	Meeting Registration
7:00 a.m. – 8:30 a.m.	Continental Breakfast in the Vendor Technology Expo
8:30 a.m. – 10:00 a.m.	Industry Awards Presentation & Plenary Session
7:00 a.m. – 9:00 a.m.	Vendor Technology Expo
10:00 a.m. – 10:30 a.m.	Refreshment Break
10:30 a.m. – 12:00 p.m.	Technical Sessions
12:00 p.m. – 1:30 p.m.	Conference Luncheon

THURSDAY, AUGUST 14, 2014

7:00 a.m. – 10:00 a.m.	Meeting Registration
8:00 a.m. – 4:00 p.m.	Professional Development Workshop: Cause Analysis for Safety Culture and Human Performance Improvement

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WORK MANAGEMENT

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Jon G. Anderson, ACA Inc.

CONFERENCE REGISTRATION

Registration is required for all attendees and presenters. Badges and tickets are required for admission to all events. The Conference Registration fee includes one ticket to each of the following events: Sunday Opening Reception; Monday, Tuesday and Wednesday Luncheons; and access to the presentations through the Online Knowledge Center.

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

REGISTRATION HOURS

The Conference Registration Desk will be located in the **Amelia Foyer,** Omni Amelia Island Plantation Resort. You may register, purchase tickets for events or pick up your registration packet during the following hours:

Sunday, August 10, 2014 • 3:00 p.m. – 7:00 p.m.
Monday, August 11, 2014 • 7:00 a.m. – 5:00 p.m.
Tuesday, August 12, 2014 • 7:00 a.m. – 5:00 p.m.
Wednesday, August 13, 2014 • 7:00 a.m. – 1:00 p.m.
Thursday, August 14, 2014 • 7:00 a.m. – 10:00 a.m.

BEST PRACTICES POSTER EXHIBIT

The Best Practices Poster Exhibit showcases individual practices and projects submitted and displayed by many US Nuclear Power Stations and Nuclear Fleet Organizations. An hour spent at the exhibit is like dozens of informal benchmarks all in one place.

Located in the Magnolia Foyer

Continental Breakfast in the Vendor Technology Expo

Sponsored by Tennessee Valley Authority

Magnolia Ballroom – 7:30 a.m. - 8:30 a.m.

OPENING PLENARY

Amelia Ballroom – 8:30 a.m. - 10:00 a.m.

OPENING REMARKS

Michaele C. Brady Raap *(ANS President)*

KEYNOTE PLENARY SPEAKER

Commissioner Kristine L. Svinicki *(NRC)*

PLENARY SESSION

Cumulative Impacts; Back to Cost-Effective Excellence

Dan Bost *(CNO, Southern Company)*

Refreshment Break in the Vendor Technology Expo

Sponsored by Rolls-Royce

Magnolia Ballroom – 10:00 a.m. - 10:30 a.m.

TECHNICAL SESSIONS

Engineering

Phased Array Ultrasonic Inspection: New Uses in the Nuclear Industry Save Time and Improve Quality

Session Organizer: Len Rajkowski

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

We will discuss the basic fundamentals of phased array ultrasonic inspection; provide perspectives from Utility, EPRI, NRC, and Vendor; show real life examples of technology deployment; discuss cost versus benefit.

Allow participants to understand the basics of phased array ultrasonic inspection, understand the superior capabilities over other inspection methods, learn how critical outage time can be better managed using this technique, see real examples of usage, understand the cost, benefit and limitations.

Session Speakers:

Utility – Mark Huting *(Xcel Energy)*
- High level description of technology
- Success stories with use from utility perspective
- Benefits of substitution for RT
- Encouragement for broader use and support

EPRI – Jack Spanner *(EPRI)*
- EPRI perspective of the technology
- Slightly more technical description of how it works
- World wide applications/ research ongoing
- Specific ongoing activities to substitute for radiography
- Plans for the future

NRC – Anthony Cinson *(NRC)*
- Regulatory perspective of the technology
- Superiority over other NDE methods
- Regulatory reviews ongoing to approve more widespread use
- Where they see the use of the technology in the future

Vendor – Fred Hall *(Curtiss-Wright-LM)*
- Vendors perspective of the technology
- Description of real life usage (success stories)
- Costs compared to other NDE
- Compare data quality with other techniques (Radiography, conventional UT)
- Equipment demonstration

Equipment Innovation/Supply

True Equipment Innovations – Introducing New Technologies to the Nuclear Industry

Session Organizer: Greg Keller

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

Much of the equipment installed in plants is antiquated at best, if not outright obsolete. Most other industries would simply replace analog systems with digital, gate valves with butterfly valves, etc. Although mainly thought of as technical challenges, many equipment decisions are actually financial. With such a small customer base and the extremely high cost of maintaining quality programs and qualifying new equipment, the "nuclear" cost is often many times the cost of the near identical item in the commercial world.

The Equipment Innovations & Supply track is a forum where industry suppliers and utility personnel can discuss nuclear industry specific equipment supply challenges. The sessions are split between the supplier perspective, the utility perspective, and the regulatory perspective.

Session Speakers:

- Joe Cinelli *(Curtiss-Wright - Nova)*
- Craig Irish *(AZZ Nuclear)*

Executive

Cost-Effective Excellence from a Regulatory Perspective

Combined Session with Business

Session Organizers: John Christensen, Aldo Capristo, Don Eggett, Dick Cole, Eric Hale, and Vince Gilbert

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

Track will explore cost-effective excellence from the regulatory perspective with companion presentations by the industry. The session includes speakers from the USNRC, the Nuclear Energy Institute and Entergy Commodities.

Session Speakers:

- Don Eggett *(AMEC AES)*
- Mike Johnson *(NRC)*
- Tony Pietrangelo *(NEI)*
- Bill Mohl *(Entergy Commodities)*

Fukushima Response and Emergency Preparedness

Update on Fukushima Recovery and Inside Perspective of the Event and Response (TEPCO)

Session Organizer: Randy Ebright

Ossabaw A – 10:30 a.m. - 12:00 p.m.

This update on Fukushima recovery and inside perspective of the event and response will provide an update of the status of the Fukushima site and the recovery efforts underway. The 2011 event will also be reviewed including key insights of the site staff and their actions and key decisions. Details of the magnitude of the event and challenges in responding to and recovering from this event will be discussed from a first person perspective by a member of the TEPCO organization.

Session Speaker:

- Kenji Tateiwi*(TEPCO)*

Maintenance/Work Management

2013 / 2014 Work Management and Work Management Overall Performance Summary

Session Organizers: Richard F. Carpenter Jr., Fred B. Mooney, Jon Anderson

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

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

Session Speakers:

- Peter J. Arthur *(INPO)*
- William C. Eckes (Bill) *(INPO)*

Operations

Improving Operational Performance and Reliability

Session Organizer: Shawn Hafen

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

This session will explore lessons learned and opportunities for improvement based on Operating experience in France and China. Mr. Gobert has worked closely with the Chinese and has unique insight on how several of their units have run without an unplanned SCRAM for more than ten years. The INPO operating experience most USA sites receive doesn't capture these foreign opportunities for improvement.

Session Speaker:

- Alain Gobert *(CENG)*

Performance Improvement

CAP-2: Reduce Corrective Actions Created

Session Organizer: Kristin Zastrow

Talbot B – 10:30 a.m. - 12:00 p.m.

Unnecessary or low-value-adding corrective actions are frequently created to address issues. These actions distract management attention and station resources from more important issues. In addition, these actions add to the corrective action program (CAP) backlog, hampering effective monitoring of important issues.

Discuss behavior changes and 'thumb rules" to implement an iterative problem resolution process and control evaluation time, report length, and limit corrective actions, e.g., limiting the number of actions to three for an apparent cause and five for a root cause.

Session Speakers:

- Brad Sawatzke *(Energy Northwest)*
- Kristin Zastrow *(Xcel Energy)*

Regulatory Relations/Oversight

The TSTF Traveler Process, 20 Years of Cost-Effective Technical Specifications Improvement

Combined Session with Regulatory Relations/Equipment Innovation and Supply

Session Organizer: Kristin Zastrow

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

In 1993, the first plants adopting the Improved Standard Technical Specifications (ISTS) formed a group that has grown into the Owners Group Technical Specifications Task Force (TSTF). The TSTF has developed almost 550 improvements to the ISTS which licensees can adopt into their plant-specific Technical Specifications. Working with the NRC, the TSTF developed a streamlined process to allow licensees to adopt approved TSTF Travelers with a minimum of effort. The session panel will consist of the current TSTF members. We will discuss and take questions on how licensees can leverage the tremendous number of Technical Specifications improvements available for plant-specific use.

Session Speakers:

- Brian Mann *(EXCEL Services Corporation)*
- Robert Slough *(Luminant Power)*
- Joseph Clark *(Entergy)*
- Wendi Croft *(Exelon)*
- Otto Gustafson *(Entergy)*
- Robert Elliott *(NRC)*

Risk Management

Ongoing Risk-Informed Applications

Session Organizer: Anil Julka

Talbot A – 10:30 a.m. - 12:00 p.m.

Since the issuance of RG 1.200 rev 2 in March of 2009, majority of the plants have upgraded their PRA models to reflect the latest requirements. These changes include an updated internal events and fire. While the external events still remain a challenge for the industry, we need to make use of these updated models for risk informed applications. Post Fukushima, industry and NRC actions have taken the focus away from the risk informed applications. However, it is essential that we use the insights provided by the PRA models to enhance safety at our plants. The risk informed applications provide a focus on what is important to safety.

In this session the participant will learn: some of the benefits of risk informed applications that improve safety. NRC perspective on risk informed applications as well as industry perspective. We will also hear the current status of the several of the risk informed applications. Leading members of the industry will provide their perspective: NRC, NEI, consultants and utility representatives will provide their experiences in the use of risk informed applications.

Session Speakers:

- Hossein Hamzehee *(NRC)*
- Mike Macfarlane *(Southern Company)*
- Rick Grantom *(Consultant PRA)*

Training

iPad Technology in the Classroom

Session Organizers: Pat Chambers, Marios Kafantaris

Ossabaw B – 10:30 a.m. - 12:00 p.m.

Introduce iPad Technology, share costs savings, and student interactions with the iPads.

Session Speaker:

- Daniel K. Shane *(PPL Susquehanna, LLC)*

Walk-Around Luncheon in the Vendor Technology Expo

Sponsored by Westinghouse Electric Company

Magnolia Ballroom – 12:00 p.m. - 1:30 p.m.

TECHNICAL SESSIONS

Business

How Can Utilities Preserve Diversity in our Generating Mix and Avoid Disruption of Power Markets?

Session Organizer: Myron Kaczmarsky

Amelia 2 – 1:30 p.m. - 3:00 p.m.

U.S. power markets, particularly those in deregulated states, are facing major challenges that threaten reliable, affordable, diverse and secure electricity supply. Market structure and external pressures, many of which flow from state and federal policy, undermine our future power grid reliability. This panel will address the following key questions which will impact the future of nuclear power in the US.

Session Speakers:

- Reiner Kuhr *(Lummus Consultants)*
- Scott Peterson *(NEI)*
- Sam Andrus *(IHS/CERA)*
- Bill Mohl *(Entergy Commodities)*
- Ronald Brise *(Florida Public Service Commission)*

Engineering/Business

Risk-Informed Applications that Result in Station Cost Reduction

Session Organizer: Len Rajkowski

Cumberland B – 1:30 p.m. - 3:00 p.m.

This session includes presentations on utility experience with risk-informed initiatives 4B and 5B (risk informed applications - Risk Managed Technical Specifications and Surveillance Frequency Control Program). The focus of the session is on how these license amendment changes maintain nuclear safety while achieving station cost reduction.

In addition, specific utility examples on the use of these risk-informed applications will be shared.

Participants will leave this session with an understanding of actual utility experience associated with the use Risk Informed Applications that result in station cost savings while maintaining appropriate station focus on nuclear safety.

Session Speakers:

- Roland Dunn *(South Texas Project Operating Company)*
- Brian Mann *(EXCEL Services Corporation)*

Equipment Innovation/Supply

Alloy 600 and Stress Corrosion Mitigation Strategies

Session Organizer: Greg Keller

Conference 1 – 1:30 p.m. - 3:00 p.m.

As the fleet of nuclear plants age and begin to exceed their original 40-year license period, challenges arise. One such challenge is Intergranular Stress Corrosion Cracking (IGSCC). IGSCC affects Alloy 600 welds as well as critical components that are not easily replaced. Water Jet Peening is an underwater peening process that has been successfully used in both BWRs and PWRs to mitigate SCC. This session will describe the basic issue, the several mitigation strategies, and then focus on one strategy – water jet peening – which is the solution that has been successfully implemented at the most plants to date worldwide.

Session Speakers:

- John Tuohy *(Hitachi America, Ltd.)*
- Jim Puzan *(AZZ Nuclear | WSI)*

Executive

Leadership That Drives Cost-Effective Excellence

Session Organizer: John Christensen

Conference 2 – 1:30 p.m. - 3:00 p.m.

This session will focus on those Leadership skills and decisions that can and do impact Operational Excellence. Included in this session are real life examples of how cost decisions can impact performance, and include discussions on INPO Evaluation results, and Cost-Effective decisions under extreme economic and operational conditions.

Session Speakers:

- John Christensen *(USA)*
- Bob Braun *(PSEG)*
- Jim Lynch *(INPO)*
- Tim Rausch *(PPL Susquehanna, LLC)*

Fukushima Response and Emergency Preparedness

Assessing Readiness for Fukushima Response Actions (panel discussion)

Session Organizer: Randy Ebright

Ossabaw A – 1:30 p.m. - 3:00 p.m.

This session will review process for assessing readiness of sites to implement changes resulting from the event at Fukushima including FLEX compliance, Spent Fuel Pool level instrumentation installation, SAFER National Response Center response plan development, and development of sustainability document (program document). Key insights from the conduct of this review at several sites will be discussed as well as managing not only the work scope but also the risk (including cost).

Panelists:

- Mike Crowthers *(PPL - Susquehanna)*
- Greg Sosson *(PSEG- Hope Creek and Salem)*
- Randy Ebright *(USA/AEP-DC Cook)*

Maintenance

SMR the Road to a Nuclear Future

Combined Session with Work Management

Session Organizer: Richard F. Carpenter, Jr.

Cumberland A – 1:30 p.m. - 3:00 p.m.

This session will include a discussion on Nuclear Power and its impacts on our economy and on the Maintenance Staffs --- why for our country to go forward we must spur the government to move ahead on this issue before the window of opportunity is missed.

Session Speakers:

- Richard F. Carpenter, Jr. *(PPL Susquehanna)*
- Mike McGough *(NuScale)*

Operations

Operations Involvement with Chemistry and Maintaining our Nuclear Units Cost-Effectiveness

Session Organizer: Shawn Hafen

Conference 3 – 1:30 p.m. - 3:00 p.m.

This session will introduce the audience to the PSEG model of "Running the Business" and provide background on the considerations involved in closing down Kewaunee, Vermont Yankee, Oyster Creek and the decision surrounding not performing further repairs at SONGS and Crystal River. The emphasis will be on chemistry controls and the role operations plays in ensuring the financial viability of the asset.

Session Speaker:

- Dick Labott *(PSEG)*

Performance Improvement

CAP-1: Define the CAP and Reduce the CAP Backlog

Session Organizer: Kip McCabe

Talbot B – 1:30 p.m. - 3:00 p.m.

Many actions in the corrective action program do not need the level of management attention and station resources the program provides to manage, track, and complete the action. As a result, the focus on the most important actions is diluted, and station supervisors, managers, and staff are distracted from more value-adding work.

Effectively managing CAP inputs and 'right-sizing' the backlog directly contributes to an operationally focused and cost-effective corrective action program. Discuss industry best practices to define what needs to be in CAP and reduce the backlog.

Session Speakers:

- Kip McCabe *(PPL Susquehanna, LLC)*
- Chris McClain *(Dominion Generation)*

Risk Management

External Event Risk Assessment and Management

Session Organizer: Mike Macfarlane

Talbot A – 1:30 p.m. - 3:00 p.m.

External hazards and Fire Risk for Nuclear Power Plants have received special attention in recent risk-informed applications, Fire PRA supporting NFPA 805 seismic and external flood evaluations have been a major focus for plant modifications and risk evaluations. Due to large uncertainties, many challenges remain for these hazards. Risk-informed insights gained from recent risk assessment and management activities will be discussed by industry representatives.

Session Speakers:

- Mike Macfarlane *(Southern Nuclear)*
- Richard (Rick) Anoba *(Hughes Associates)*
- Gene Kelly *(Exelon)*

Training

Addressing Cumulative Impact with DevonWay

Session Organizers: Pat Chambers, Marios Kafantaris

Ossabaw B – 1:30 p.m. - 3:00 p.m.

A cumulative effects update of early adopters' experience in reducing cost while improving desired outcomes. We will review and discuss enterprise and departmental solutions that DevonWay customers are implementing as part of their cumulative impact action plan. This report includes performance improvement metrics and early adopters' findings that can help peers tune their approach to reducing cumulative impacts.

Session Speaker:

- Matt Sacks *(DevonWay)*

Work Management

Implementing the Use of Single Person Tasks at your Station (Cumulative Impact WM3)

Session Organizer: Jon Anderson

Amelia 3 – 1:30 p.m. - 3:00 p.m.

This session will include a discussion on how the industry has implemented the use of single person tasks, the tools used and the leadership needed to implement this strategy. Plant personnel that have made the greatest gains or lessons learned in this topical performance today. Today's market is driving the need for plants to safely become more efficient.

Session Speakers:

- Peter J. Arthur *(INPO)*
- William C. Eckes (Bill) *(INPO)*

Refreshment Break in the Vendor Technology Expo

Magnolia Ballroom – 3:00 p.m. - 3:30 p.m.

TECHNICAL SESSIONS

Business

Lessons Learned and Economic Consequences for Recent Nuclear Plant Closures

Session Organizer: Margaret Harding

Amelia 2 – 3:30 p.m. - 5:00 p.m.

U.S. power market structures and other causal factors have resulted in several recent nuclear plant closures. This session will explore the lessons learned and economic consequences impacting the local community, state and regional areas affected. Speakers have been invited that have first-hand knowledge of the facts in each case. Attendees will be able to develop a full appreciation for why nuclear power plants should be considered as strategic national energy and economic assets. The panel will also identify specific strategic actions the U.S. Government could explore to mitigate the current situation concerning preservation of strategic assets.

Session Speakers:

- Margaret Harding *(4 Factor Consulting)*
- Edward Kee *(Independent Consultant)*
- John Mahoney *(Entergy/Retired)*
- Elise N. Zoli *(Goodwin-Proctor)*

Engineering

Cyber Security for Nuclear Power Plants: Regulatory Status and Lessons Learned

Session Organizer: Len Rajkowski

Cumberland B – 3:30 p.m. - 5:00 p.m.

This session addresses the current status of the NRC regulatory framework for cyber security as well as utility lessons learned in addressing these updated requirements. Since the NRC publication of Regulatory Guide 5.71, new inspection criteria have been issued to the utilities by the NRC, and a number of inspections have been conducted by the NRC to verify the adequacy of the actions implemented following 10 CFR 73.54 and Regulatory Guide 5.71. On the industry side, a lot of progress has been made in application of NEI 08-09 R6 and associated documents in implementing the cyber security program at each nuclear station. Speakers will address the latest information from the perspective of NRC, NEI, and industry in this fast changing area of nuclear regulation, including NRC-endorsed NEI 13-10 guidance.

Session Speakers:

- Jim Shank *(PSEG)*
- Nathan Faith *(Exelon)*
- Russ Felts *(NRC)*
- John Thorp *(NRC)*

Equipment Innovation/Supply

Systems Upgrades - Introducing New Methodologies to the Nuclear Industry

Session Organizer: Bill Davidson

Conference 1 – 3:30 p.m. - 5:00 p.m.

Many systems and equipment within the systems are old technology; the equipment and methods of installation today are far superior to what was previously available. The presentations look at collaboration of the contractor, owner, engineers, and consultants to put together an innovative solution to the problem in a short time, while going through the process of fully vetting out the design to assure that the installation would meet all design requirements and ensuring the safest, most efficient replacement allowable, while significantly reducing the risk of equipment degradation for the remaining life of the plant.

Session Speakers:

- Steve McIntosh *(GE Hitachi Nuclear Energy)*
- Duane Krehbiel *(SPX Cooling Technologies)*

Executive

Operational Insights into Cost-Effective Excellence

Session Organizers: John Christensen

Conference 2 – 3:30 p.m. - 5:00 p.m.

This session will include presentations and a discussion on how Operating Commercial Nuclear Power plants have implemented specific Cost-Savings initiatives that may be applied at other facilities.

Session Speakers:

- John Christensen *(USA)*
- Chris Schwarz *(PSEG)*
- Pat Burke *(Capital Projects)*
- Tom Taylor *(Xcel Energy)*
- Bob Tilton *(PSEG Nuclear)*

Fukushima Response and Emergency Preparedness

Beyond Design Bases Natural Disaster - SAFER National Response Center Update

Session Organizer: Randy Ebright

Ossabaw A – 3:30 p.m. - 5:00 p.m.

This session will provide an update on commissioning of the two SAFER National l Response Centers (Memphis and Phoenix) including equipment procurement, proof of concept tests, response readiness schedule and equipment delivery /request process. Utility roles and responsibilities will be reviewed together with key insights from the initial response plan previsits. Criteria for staging areas will be discussed as well as utility responsibilities for equipment operation after delivery and set up.

Session Speakers:

- Sergio Vazquez *(AREVA)*
- Randy Mundy *(SAFER/PIMS)*
- Randy Ebright *(USA / AEP)*
- Marty Trum *(AREVA)*
- Deanna McComb *(Safer/PIMS)*

Maintenance

Cumulative Impact (Burden Reduction) Use and Benefits of the Electronic Work Order

Combined Session Business, Performance Improvement

Session Organizers: Richard F. Carpenter Jr., Fred B. Mooney

Cumberland A – 3:30 p.m. - 5:00 p.m.

The session will include presentations and a discussion on how the industry is implementing technology to improve getting work to the field.

Session Speakers:

- Lee Rogers *(DATA Glance)*
- Richard F. Carpenter Jr. *(PPL Susquehanna, LLC)*
- Fred B. Mooney *(PSEG Nuclear)*

Operations

Load Following and the Impacts on Fuel Costs and Reliability

Session Organizer: Shawn Hafen

Conference 3 – 3:30 p.m. - 5:00 p.m.

This session will center on lessons learned by AREVA from load following operations at several European plants. This information will be directly applicable to utilities as they look at load following operations and the affect that will have on unit and fuel reliability.

Session Speakers:

- Doris Pasler *(AREVA)*
- *(Energy Northwest Columbia Generating Station)*

Regulatory Relations/Oversight

Working with New Regulatory Affairs Staff

Session Organizers: John Tripoli, Trent Wertz

Cumberland C – 3:30 p.m. - 5:00 p.m.

This session will focus on the training of personnel new to nuclear licensing. With the vast amount of retirements expected across the industry in the coming years, the next generation of licensing professionals needs to be ready to hit the ground running. Training will be an integral part of that preparation. Industry-wide and site-specific training of new hires will be explored in this session, and compared to the manner by which the NRC trains its new hires.

Session Speakers:

- Shane Jurek *(PPL Susquehanna, LLC)*
- Laurie Lahti *(Certrec Corporation)*
- Eva Brown *(U.S. NRC)*

Risk Management

Cumulative Impact of Regulation and Role of PRA

Session Organizer: Gerald Loignon

Talbot A – 3:30 p.m. - 5:00 p.m.

The Industry is becoming overwhelmed by the need to respond to an increased regulatory burden to address regulatory issues related to physical security, cyber security, seismic hazards, flooding hazards, extended loss of power events, and other undefined beyond design basis events. As a result NEI and NRC are engaged in developing processes to reduce the cumulative effects of these regulatory issues (CER). A prioritization process, that includes consideration of nuclear safety, security, emergency planning, and ALARA aspects, has been drafted and table top exercises conducted at several nuclear plants. If the commission approves, several utilities will pilot the process later this year.

Utility, NEI, and NRC will discuss the draft prioritization process, insights gained from the table top exercises, use of PRA results/ insights, their perspectives on how the prioritization will be reflected in the plant project schedule, and their vision of the final process.

Session Speakers:

- John Butler *(NEI)*
- Don Dube *(ERIN)*
- Jim Chapman *(Scientech Curtiss-Wright Nuclear)*
- Joe Giitter *(NRC)*
- John Grubb *(Xcel Energy)*

Training

Eliminating Emergency Diesel Generator (EDG) Errors and Associated Burdens Using EDG Simulator

Session Organizers: Pat Chambers, Marios Kafantaris

Ossabaw B – 3:30 p.m. - 5:00 p.m.

This is a proven tool for training and evaluating Operator Fundamentals, HU tools implementation, providing JIT Training, and reinforcement of Operating Experience (OE).

Session Speaker:

- Bryan D. Crone *(DTE, Fermi)*

Work Management

Topic (1): First Line Supervisor Effectiveness – Actions taken to drive responsibilities and accountability to the first line supervisors (Cumulative Impact HU2)

Topic (2): Improvement to increase wrench time and getting workers in the field earlier in the workday (Cumulative Impact HU1)

Combined Session with Maintenance, Business and Performance Improvement

Session Organizer: Jon Anderson

Amelia 3 – 3:30 p.m. - 5:00 p.m.

This session will include a discussion on how the industry has implemented First Line Supervisor Effectiveness and Improvements in Wrench Time, the tools used and the leadership needed to implement this strategy. Plant personnel that have made the greatest gains or lessons learned in this topical area will lead the discussion on that area. Reducing burdens is one of the most talked about areas of plant performance today. Today's market is driving the need for plants to safely become more efficient.

Session Speakers:

- Peter J. Arthur *(INPO)*
- William C. Eckes (Bill) *(INPO)*
- Tim Schlimpert *(MCR Performance Solutions)*
- Adam Dow *(MCR Performance Solutions)*

ANS Conference
2014 Utility Working Conference and Vendor Technology Expo

Exhibitor Feedback Session

This session will give you the opportunity to provide feedback on this meeting; positive comments or any concerns you may have are welcome.

Tuesday, August 12
3:30 pm - 5:30 pm
Conference Room 3

The American Nuclear Society and the meeting officials of the UWC Conference would like to thank the Utilities Service Alliance for its generous support.

Cost-Effective Excellence
USA
UTILITIES SERVICE ALLIANCE

Sunrise Breakfast

Sponsored by Sargent & Lundy

Magnolia Terrace and Garden – 7:00 a.m. - 8:00 a.m.

Plenary Session

Amelia Ballroom – 8:00 a.m. - 10:00 a.m.

OPENING REMARKS

Donald R. Hoffman *(ANS Immediate Past President, CEO EXCEL Services Corporation)*

PLENARY SESSION

The Vendor's Role in Partnering for Cost-Effective Excellence

Facilitator: Timothy Rausch

Vendor panel; Presentations and panel discussion based on questions from the audience.

Session Speakers:

- Michael McMahon *(President, Engineering, Construction & Maintenance, Day & Zimmermann)*
- Dave Studley *(VP Power Group, Enercon Services)*
- Craig Ranson, Sr. *(AREVA)*
- Delfo Bianchini *(Senior Vice President, Sargent & Lundy)*

Refreshment Break in the Vendor Technology Expo

Sponsored by Lockheed Martin

Magnolia Ballroom – 10:00 a.m. - 10:30 a.m.

TECHNICAL SESSIONS

Engineering

Advanced Engineering Training Initiative – Working with Industry to Address Industry Knowledge Transfer at an Affordable Cost

Session Organizer: Len Rajkowski

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

Engineering training programs have relied heavily on mentoring in order to transfer knowledge from experienced engineers to less experienced engineers. This is becoming more of a challenge as our experienced work-force is retiring. The nuclear industry needed to develop "advanced engineering" computer based training modules to facilitate the knowledge transfer process and reinvigorating the Design Basis knowledge so importing to the Design Engineering staffs in our companies.

This session will discuss the challenges and lessons learned with formulating the structure and contracts, allowing participating utilities to pool resources, issue Purchase Orders, and benefit from a combined effort that was cost prohibitive for any one utility to pursue, in these economically challenging times.

Participants will leave this session with an understanding of actual experience associated with working together, combining assets to develop products that, due to the cost, have been out of reach for the individual utilities. In addition participants will have the opportunity to experience the most leading edge computer training available, hands-on. (Computer Based Training Modules for Accident Dose Consequence & High Energy Line Break will be made available)

Session Speaker:

- John Andrew Wilkerson *(Southern Company)*
- Kavita Lad *(Info Pro Learning)*

Equipment Innovation/Supply

Excellence in Supplier Performance- Long-term "Win-Win" Relationships with True Supplier-Partners are a Critical Part of Optimizing the Supply Chain and Lowering Total Cost of Ownership.

Session Organizer: Jim Kitchens

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

Does the low bid always result in the lowest overall cost? While often difficult to specifically quantify, poor supplier performance quickly drives cost upward with adverse results ranging from blown budgets to catastrophic operating consequences. Such issues quickly consume any initial pricing advantage that may have existed. Today's competitive environment demands competitive pricing as well as customers and suppliers committed to excellence in execution from supply of the most mundane parts to the most complex and difficult services. This session will explore the processes and benefits of effective management of the customer – supplier relationship.

Session Speakers:

- Tim Johnson *(Xcel Energy)*
- Sarah Vandermast *(USA)*

Executive

New Construction Insights into Cost-Effective Excellence

Session Organizer: Eric Hale

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

This session will include presentations and a discussion on how companies involved in construction at new Nuclear Power plants have implemented specific Cost-Savings initiatives that may be applied at other facilities.

Session Speakers:

- Eric Hale *(Day & Zimmermann)*
- Mike Skaggs *(TVA)*
- Doug Lee *(B&W mPower)*
- David McKinney *(Southern Company)*

Fukushima Response and Emergency Preparedness

Changes to the Role of Emergency Preparedness as a Result of the Fukushima Accident

Session Organizer: David Burgin

Ossabaw A – 10:30 a.m. - 12:00 p.m.

This session will explore the changing role of the Emergency Preparedness organization in the nuclear industry as a result of the accident at Fukushima. Included will be a discussion of changes to regulation and industry guidance / standards.

Session Speaker:

- David Young *(NEI)*

Maintenance

Lifting and Rigging, Learning from our Past

Session Organizers: Richard F. Carpenter Jr., Fred B. Mooney

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

Mr. Gelskey will present a 90 minute seminar for the ANS Utility Worker Conference which will educate, inspire and entertain. "Rigging for Success" will not only provide the information which enables sling users to successfully rig loads, but also offers the fundamental steps and procedures to establish and maintain a viable system of sling and rigging inspection.

"Rigging for Success" will provide deliverables that when employed will produce results. If you think you know all there is about sling inspection, an interactive exercise will test your inspection knowledge. Mr. Gelskey will do much more than present proper sling use and inspection techniques. He will inspire you with a quest for excellence that does not allow compromise.

Session Speakers:

- Mike Gelskey, Sr. *(Lift-It Corporation)*

Operations

Operational Cost Savings

Session Organizer: Shawn Hafen

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

This session will center on reducing the cumulative administration burden, the management of overtime and enhancing productivity by the operations staff in an effort to maximize cost-effective operations. In addition, the importance of unit reliability during peak power demand periods, capital management and contractor cost controls will be discussed.

Session Speaker:

- Brian Booth *(PSEG)*

Performance Improvement

CAP-3: Manage Actions in Other Processes

Session Organizer: Mark Venaas

Talbot B – 10:30 a.m. - 12:00 p.m.

Issues that can be more effectively and efficiently managed by other station processes are managed in the corrective action program (CAP). As a result, unnecessary station resources are applied to manage priorities, review backlogs, and close out items using the rigid administrative requirements established in the CAP. In addition, management expectations have driven a due date mentality, resulting in issues being worked to an inappropriate priority.

Discuss industry best practices to manage tracking and completion of corrective actions using other processes where appropriate.

Session Speakers:

- Mark Venaas *(Exelon)*
- Carrie Gilbreath *(Southern Company)*

Regulatory Relations/Oversight

Cumulative Effects of Regulation and Risk Prioritization

Session Organizers: John Tripoli, Trent Wertz

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

This session will focus on a discussion on the Cumulative Effects of Regulation (CER) and the Risk Prioritization Initiative, including industry views whether regulatory analyses estimates are more accurate now that CER process enhancements have been established for three years, and the possible paths forward in regulatory space. The session will also inform some regulatory basis interaction improvements that the NRC staff is considering.

Session Speakers:

- Jennifer Uhle *(NRR/NRC)*
- John McCann *(Entergy)*
- Adrian Heymer *(NEI)*
- Brian McCabe *(Duke)*
- Scott Bauer *(STARS Alliance)*

Risk Management

Defense in Depth (Applying PRA Insights in a Defense in Depth Framework)

Session Organizer: Jim Chapman

Talbot A – 10:30 a.m. - 12:00 p.m.

Defense in depth is foundational principle of nuclear power plant design and operation. Based on operating experience and the development and application of methods such as Probabilistic Risk Assessment (PRA) NRC and Industry have refined the approaches to Defense in depth for some risk informed applications. Activity continues to explore possible further refinements in response to the events at Fukushima Daiichi and NRC and Industry initiatives to further advance the understanding and management of safety.

In this session the participant will learn: how a risk informed approach to defense in depth compares and contrasts to the traditional approach; actual examples where the risk informed approach supports improved decision making; NRC plans to further explore possible changes in the approach to defense in depth; and corresponding Industry plans. Leading members of the US Industry will present: Joseph Giitter of NRC; Victoria Anderson of NEI; Amir Afzali of Southern; and Doug True of ERIN. Jim Chapman of Scientech Curtiss Wright will chair the session and also present.

Session Speakers:

- Victoria Anderson *(NEI)*
- Joe Giitter *(NRC)*
- Jim Chapman *(Scientech Curtiss-Wright Nuclear)*
- Doug True *(ERIN)*

Training

Simulator Modeling

Session Organizers: Pat Chambers, Marios Kafantaris

Ossabaw B – 10:30 a.m. - 12:00 p.m.

This session will describe the benefits of modeling the simulator to show the effects of internal and external flooding and the effects of extreme beyond design basis events.

Session Speaker:

- Tom Shortell *(Xcel, Monticello)*

Work Management

Increasing the Use of Minor Maintenance at your Station (Cumulative Impact WM5)

Maintenance Welcome

Session Organizers: Jon Anderson, Tim Schlimpert

Amelia 3 – 10:30 a.m. - 12:00 p.m.

This session will include a discussion on how the industry has increased the use of minor maintenance, the tools used and the leadership needed to implement this strategy. Plant personnel that have made the greatest gains or lessons learned in this topical area will lead the discussion on that area. Reducing burdens is one of the most talked about areas of plant performance today. Today's market is driving the need for plants to safely become more efficient.

Session Speakers:

- Peter J. Arthur *(INPO)*
- William C. Eckes (Bill) *(INPO)*
- Tim Schlimpert *(MCR Performance Solutions)*
- Adam Dow *(MCR Performance Solutions)*

Walk-Around Luncheon in the Vendor Technology Expo

Magnolia Ballroom – 12:00 p.m. - 1:30 p.m.

TECHNICAL SESSIONS

Business/Engineering

Optimizing Preventive Maintenance

Session Organizers: Tim Schlimpert, Len Rajkowski

Cumberland B – 1:30 p.m. - 3:00 p.m.

This session will explore preventive maintenance optimization from several perspectives. An effective PM program is vital in the prevention of unexpected corrective maintenance work which in turn drives up maintenance costs and reduces revenue received for energy production. Session subtopics include how to significantly reduce the time to process pm feedback items by Increasing the effective of the preventive maintenance feedback/review process and transitioning from T-26 to T+1 review as well as an engineering view of how to optimize the pm process and a business view of the relationship between overall equipment reliability and nuclear asset management.

Session Speakers:

- Jason Stairs *(PSEG Power)*
- Tim Schlimpert *(MCR Performance Solutions)*
- Adam Dow *(MCR Performance Solutions)*

Fukushima Response and Emergency Preparedness

Beyond Design Bases National Disaster - SAFER National Response Center Update

Session Organizer: Randy Ebright

Ossabaw A – 1:30 p.m. - 3:00 p.m.

This session will provide an update on commissioning of the two regional response centers (Memphis and Phoenix) including equipment procurement, proof of concept tests, response readiness schedule and equipment delivery /request process. Utility roles and responsibilities will be reviewed together with key insights from the initial response plan previsits. Criteria for staging areas will be discussed as well as utility responsibilities for equipment operation after delivery and set up.

Session Speakers:

- Randy Mundy *(Safer/PIMs)*
- Sergio Vasquez *(AREVA)*

Equipment Innovation/Supply

Meeting the Challenge to Thrive - Supply Chain Opportunities in a Changing Nuclear Landscape

Session Organizer: Jim Kitchens

Conference 1 – 1:30 p.m. - 3:00 p.m.

The ever-changing world of nuclear power offers exciting and seemingly unending opportunities for supply chain professionals and their suppliers to contribute to safe, effective, low-cost plant operation. This session will look at several of those opportunities and the innovative solutions implemented or being considered.

Session Speakers:

- Randy Ebright *(USA/DC Cook)*
- Rob Littles *(PPL Susquehanna, LLC)*

Executive

UWC Governance

Conference 2 – 1:30 p.m. - 3:00 p.m.

This session is co-hosted by the 2014 General Chair, Industry Executives and current and future track leaders. We will discuss what went well during the 2014 UWC, such that the 2015UWC can build on the success from the 2014 UWC.

Session Speakers:

- Various

Fukushima Response and Emergency Preparedness

Evolution of Site Emergency Preparedness Organizational Responsibilities as a Result of the Accident at Fukushima (panel discussion)

Session Organizer: David Burgin *(PSEG)*

Ossabaw B – 1:30 p.m. - 3:00 p.m.

This session will review the changes to each site Emergency Preparedness organization as new responsibilities from the accident at Fuksuhima are incorporated into the existing site emergency preparedness organizations. Key learnings from completion of actions relating to INPO IER 13-10 will be discussed as well as going forward actions which will require a strong change management plan or strategy.

Panelists:

- David Burgin *(PSEG)*
- Mike Slobodien *(EP Consultant)*
- Randy Ebright *(USA / AEP)*

Maintenance

Establishing and Maintaining an Effective Leak Control Program

Session Organizers: Richard F. Carpenter Jr., Fred B. Mooney

Cumberland A – 1:30 p.m. - 3:00 p.m.

Mr. Hart will go over what makes an efficient and effective Leak Management Program and the nuts and bolts of keeping it sound. Mr. Ken Hart is a leading expert in all things valve related and promises an interactive program with take aways not usually found at a conference.

Session Speaker:

- Ken Hart *(API)*

Operations

Minimizing Events Through Improved Awareness and Identification of Triggers

Conference 3 – 1:30 p.m. - 3:00 p.m.

This session will focus on a review of cause evaluations, it has been determined that there are cues or "triggers" that precede an undesirable event. Although these triggers are present, people often rationalize or justify moving forward without STOPPING, resulting in an event. We will use industry case studies to identify "triggers".

Session Speaker:

- Rey Gonzalez *(HOPE Consulting, LLC)*

Performance Improvement

CAP-4: Analyze Fewer Individual Issues and More in Aggregate

Session Organizer: Mark Venaas

Talbot B – 1:30 p.m. - 3:00 p.m.

In many cases, station personnel overly focus on analyzing individual issues instead of collecting bins of similar problems and analyzing data in aggregate. Analysis of individual issues is often less accurate than performing an aggregate analysis because the behaviors and organizational factors that contribute to the issue are not as clear when focusing on a single event.

Although every station is different, 70 to 80 percent of the issues identified should require no action or can be closed to trend with the actions initially taken by managers and supervisors. Discuss industry best practices to reduce the number of single issues evaluated, and increase the number of aggregate issues evaluated.

Session Speakers:

- Mark Venaas *(Exelon)*
- Don Wheeler *(Arizona Public Service)*

Regulatory Relations/Oversight

Use of Technology Within Regulatory Processes

Session Organizers: John Tripoli, Trent Wertz

Cumberland C – 1:30 p.m. - 3:00 p.m.

Imagine the work environment of the future…Paper will be obsolete; technology will be paving the way to increased efficiency and cost-reduction. Employees may carry iPads or tablets, enabling them to query procedures, photos, or work instructions; voice recognition software will allow personnel to (with three part communication of course) document action taken without writing or typing. Sophisticated algorithms will facilitate prompt trending. Information will be available to the work force, to NRC, and to the public in real-time. These changes could happen within next 5 years. Wait until you hear about the possibilities for the future at this exciting session.

Session Speakers:

- Regina Genovese *(PPL Susquehanna, LLC)*
- Theresa Sutter *(Curtiss-Wright (Scientech))*
- KG Golshan *(NRC)*
- Matt Sacks *(DevonWay)*

Work Management

Increasing the Effectiveness of the Preventive Maintenance Feedback/Review Process and Transitioning from T-26 to T+1 Review (Cumulative Impact WM1)

Combined Session with Engineering with Welcome by Maintenance Track

Session Organizer: Jon Anderson

Talbot A – 1:30 p.m. - 3:00 p.m.

This session will include a discussion on how the industry has increased the effectiveness of preventive maintenance feedback at T+1, the tools used and the leadership needed to implement this strategy. Plant personnel that have made the greatest gains or lessons learned in this topical area will lead the discussion on that area. Reducing burdens is one of the most talked about areas of plant performance today. Today's market is driving the need for plants to safely become more efficient.

Discussion of industry implementation to, lessons learned and benefits gained. Plant personnel with the greatest gains or lessons learned will lead the discussion on this area.

Session Speakers:

- Peter J. Arthur *(INPO)*
- William C. Eckes (Bill) *(INPO)*

Refreshment Break in the Vendor Technology Expo

Magnolia Ballroom – 3:00 p.m. - 3:30 p.m.

TUESDAY AFTERNOON TECHNICAL SESSIONS

Engineering

Industry "Best Practices" in Equipment Obsolescence and Critical Spares Programs (w/Supply Chain)

Session Organizer: Len Rajkowski

Cumberland B – 3:30 p.m. - 5:00 p.m.

In today's environment Equipment Obsolescence and Critical Spares are cornerstones to a solid Equipment Reliability Program. These programs help reduce the risk and vulnerabilities associated equipment downtime, extended outages and loss of capacity factors. These presentations will focus on leading Industry programs that will provide solid Benchmarking opportunities in the areas of Critical Spares and Equipment Obsolescence. Each presentation will cover the industry requirements, current issues and corrective actions associated with those processes. This is an excellent opportunity for utilities to improve their stations Programs and Processes in these specific areas.

Session Speakers:

- Howard T. LeCompte *(DTE Electric)*
- Robert Martin Jr. *(APG&E)*
- Paul Tobin *(Rolls-Royce)*

Equipment Innovation/Supply

Burden Reduction through Equipment and Process Solutions- Merging Creativity and Technology to Improve Operations and Relieve Stress on Personnel, Equipment and Processes Already Stretched to their Limits

Session Organizer: Jim Kitchens

Conference 1 – 3:30 p.m. - 5:00 p.m.

Success, if not outright survival, in today's environment of ever increasing expectations for both output and error-free execution dictate implementation of enhanced technology and processes that are both effective and user-friendly. This session will examine the issues from a variety of perspectives and demonstrate innovative approaches to a thorny challenge that isn't going away.

Session Speakers:

- Heather Roth *(Babcock & Wilcox)*
- Nick Sutherland *(Burns & McDonnell)*
- Jim Lash *(Xcel Energy)*

Fukushima Response and Emergency Preparedness

Disposition of Seismic Study Results (panel discussion)

Session Organizer: Randy Ebright

Ossabaw A – 3:30 p.m. - 5:00 p.m.

Session will explore options for the adjudication of site Seismic study results including Ground Motion Response Spectra (GMRS). Cost-effective options for resolution will be examined including crediting existing IPEEE studies. Need for the conduct and managing the results of a Seismic Margin Analysis (SMA) or a seismic Probabilistic Risk Analysis (SPRA) will be reviewed as well as other options. Session will include assessment of GMRS results and comparing them to existing Design Bases Safe Shutdown Earthquake levels at both low and high frequency levels.

Panelists:

- Bruce Lory *(Stevenson & Associates)*
- Walter Djordjevic *(Stevenson and Associates)*
- Greg Sosson *(PSEG)*

Performance Improvement

HU-2: Supervisor Coaching and Observation Program

Session Organizer: Don Goble

Tabot B – 3:30 p.m. - 5:00 p.m.

Supervisors are burdened with the administrative requirements of cumbersome observation programs. This detracts from the supervisor role of coaching and de-emphasizes supervisor-worker engagement. As a result, workers are not receiving adequate coaching necessary to improve proficiency and reduce errors.

Discuss industry best practices to increase supervisor coaching and significantly reduce the effort to capture and trend observations.

Session Speakers:

- Don Goble *(Xcel Energy)*
- Brandon Marlow *(Southern Nuclear)*

Work Management

Combined Session with Business, Engineering, Operations and Maintenance

Session Organizers: Richard F. Carpenter Jr., Fred B. Mooney, Jon Anderson

Burdens that require multiple departments to solve that are not currently part of Cumulative Impact will be discussed and realistic solutions developed. Facilitated breakout sessions with representatives from each department will be conducted. Breakout sessions will develop a problem statement and realistic actions that can be taken to solve that burden.

3:30 p.m. - 5:00 p.m.

Breakout 1

Cumberland A

Topic: Establishing a Risk Informed Plant Accountability for Work Load Management. Facilitator: Jason Stairs *(USA, PSEG)*

Breakout 2

Cumberland C

Topic:* (Business Track) *Reducing Urgent / Emergent Work That is Disrupting Work Schedules, Facilitator: Vince Gilbert *(EXCEL Services Corporation)*

Breakout 3

Ossabaw B

Topic:* (Business Track) *Establishing a Gatekeeper to Ensure New Work is Technically and Cost Justified, Facilitator: Tim Schlimpert *(MCR Performance Solutions)*

Breakout 4

Talbot A

Topic:* (Business Track) *Fully Utilizing Existing Computer Tools and Plant Data, Facilitator: Adam Dow *(MCR Performance Solutions)*

Session Speakers:

- Jon Anderson *(ACA, Inc.)*
- Peter J. Arthur *(INPO)*
- William C. Eckes (Bill) *(INPO)*
- Jason Stairs *(USA, PSEG)*

Reception in the Vendor Technology Expo

Magnolia Ballroom – 5:00 p.m. - 7:00 p.m.

EXCEL SERVICES CORPORATION Invites You to *"An Evening in Margaritaville"*

Amelia Ballroom – 7:30 p.m. - 10:30 p.m.

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Westinghouse

Continental Breakfast in the Vendor Technology Expo

Amelia Ballroom – 7:00 a.m. - 8:30 a.m.

INDUSTRY AWARDS AND PLENARY SESSION

Amelia Ballroom – 8:30 a.m. - 10:00 a.m.

OPENING REMARKS

Michaele C. Brady Raap *(ANS President)*

INDUSTRY AWARDS PRESENTATION

Utility Leadership Award

This award was established in 1994 by the Operations and Power Division (OPD) and became a national award in 2005 to recognize an individual who has demonstrated outstanding leadership and has contributed greatly to the success of the nuclear power industry. The criteria are nonspecific. Therefore the nomination must provide supporting details and enough facts for the selection committee to make an informed decision.

The 2014 Utility Leadership Award recipients are Jeffrey B. Archie *(South Carolina Electric & Gas)* and Danny G. Bost *(Southern Nuclear Operating Company).*

Utility Achievement Award

This award was established in 1994 by the Operations and Power Division (OPD) and became a national award in 2005 to recognize the commercial nuclear power plant(s) that demonstrate outstanding achievements in performance. The criteria are non-specific, but the achievement may be either sustained outstanding performance or outstanding improvement in performance.

The 2014 Utility Achievement Award recipient is Palo Verde Nuclear Generating Station.

Walter H. Zinn Award

Established in 1976, this award is administered by the Operations and Power Division to recognize outstanding contributions to the advancement of nuclear power. It honors Walter H. Zinn, the Society's first president. This award is granted to an individual for a notable and sustained contribution to the nuclear power industry that has not been widely recognized. It may be a technical contribution, one of leadership, or other notable service to the industry.

The 2014 Walter H. Zinn award recipient is Kyle H. Turner, Ph.D.

PLENARY SESSION

EPRI Products and Services Available to Utilities to Contribute Towards Cost-Effective Excellence

Session Speaker: Neil Wilmshurst *(Vice President & CNO, EPRI)*

Refreshment Break

Magnolia Foyer – 10:00 a.m. - 10:30 a.m.

TECHNICAL SESSIONS

Engineering/Business

Project Reliability: Path to Excellence for Systems Return to Operations

Combined Session with Operations
Session Organizer: Len Rajkowski

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

Topic: Reducing Urgent / Emergent Work that disrupts station work schedules

- The industry average for critical component failures is about 1 per unit per quarter. However, the amount of urgent / emergent work is a major disruption at many stations.
- Forward looking process must be implemented with high uncompromising standards for Challenge Boards to ensure that work is technically justified, a cost benefit, and rigorously evaluated relative to risk.
- Challenge Boards must be comprised of highly proficient, fully engaged Stakeholders that are supported by Station Leadership to sustain forward looking process and ensure appetite control.

Topic: Evaluate Design Processes to Remediate Process Deficiencies and Inefficiencies

- Ensure robust Failure Modes and Effects Analysis (FMEA) for design output
- Provide initial and continuing training (e.g., lessons-learned review) for FMEA analysis.
- Benchmark RTO Process to industry best practices.
- Improve document detail provided at RTO to ensure process is transparent and provides adequate detail for review from a performance perspective.

Session Speakers:

- Jim Ross *(AEP- DC Cook)*
- Tim Schlimpert *(MCR Performance Solutions)*
- Rick Stadtlander *(XCEL Nuclear)*
- Adam Dow *(MCR Performance Solutions)*

Equipment Innovation/Supply

Commercial Grade Dedication Guidance Update

Session Organizer: Marc Tannenbaum

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

Wide success and adoption of EPRI's commercial grade dedication methodology first published in 1988 (NP-5652) has resulted in it being used for applications never imagined by the team that wrote it.

EPRI will be rolling out an update to the original guidance in 2014 that provides a more detailed look at the process and the ways in which it is currently used. In addition, the guidance is aligned with currently proposed changed to the dedication requirements in 10CFR Part 21.

In this session, principle authors of proposed changes to the regulation and the updated guidance will take a look at the NRC's proposed clarification to the dedication requirements in 10CFR Part 21, and provide an overview of EPRI's new guidance including a summary of the report's contents, technical clarifications, and key points.

Session Speakers:

- Marc Tannenbaum *(EPRI)*
- Rich McIntyre *(US NRC)*
- Vic Hall *(US NRC)*

Executive

Executive Perspectives

Session Organizer: Eric Hale

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

This session will include executive leadership insights on additional aspects of nuclear power, from power marketing to the future of nuclear in the U.S.

Session Speakers:

- Eric Hale *(Day & Zimmermann)*
- David Kaskie *(Empyrean Systems, Inc.)*
- Preston Gillespie *(Duke Energy)*

Fukushima Response and Emergency Preparedness

Disposition of Flooding Level Study Results

Session Organizer: Randy Ebright

Ossabaw A – 10:30 a.m. - 12:00 p.m.

Session will explore utility options to disposition a variety of flooding study results in a cost-effective manner. Included will be current industry analysis tools and insights. Alternative flooding options will be reviewed as well as key learnings from walk downs and the flooding event at Ft Calhoun.

Panelists:

- Joe Gasper *(OPPD)*
- Christopher Bender *(Taylor Engineering)*

Maintenance

Nuclear Power: Managing Technology

Session Organizers: Richard F. Carpenter Jr., Fred B. Mooney

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

The first session will introduce new methods to manage various technologies to make them easier to use and more productive.

The second part will explore how remote devices are savings us dose, time and money and will star "SUSI the Magnificent."

Session Speakers:

- Brian Rymer *(PCG)*
- Richard F. Carpenter, Jr. *(PPL Susquehanna, LLC)*

Operations

Project Implementation and Successful Turnovers Between Engineering and Operations

Combined Session with Engineering

Session Organizer: Shawn Hafen

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

This session will be a combined session with Operations, Engineering and, Business tracks to discuss the most effective ways to implement plant projects. Particular emphasis will be placed on how the engineering to operations hand offs should occur to facilitate plant readiness and minimize costs involved.

Session Speaker:

- Rick Stadtlander *(Xcel Energy)*

Performance Improvement

Preserving a Healthy Safety Culture while Implementing Cumulative Impact Initiatives

Session Organizer: Kristin Zastrow

Talbot B – 10:30 a.m. - 12:00 p.m.

The industry has grown accustomed to generating multiple actions within a station's corrective action program for high level evaluations for emotional issues, low safety significant issues, and have used CAP to manage working level issues such as performance management and tracking items. Closing to trend has been viewed as ineffective at addressing CAP issues and is not embraced as an effective tool to improve performance. The challenge is to ensure that low level issues continue to be entered in CAP with confidence that the right performance improvement tools will be used.

Session Speakers:

- Diane Sieracki *(NRC)*
- Michelle Kelly *(Xcel Energy)*
- Kristin Zastrow *(Xcel Energy)*

Work Management

Work Management and Maintenance Challenges at your Station and the Next Steps to Improve Efficiency

Welcome By Maintenance Track

Session Organizer: Jon Anderson

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

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

Session Speakers:

- Peter J. Arthur *(INPO)*
- William C. Eckes (Bill) *(INPO)*

Conference Luncheon

Magnolia Terrace and Garden – 12:00 p.m. - 1:30 p.m.

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

Thursday, August 14, 2014
8:00 a.m.-4:00 p.m.
Conference 3

Workshop Organizer and Instructor:

Dick Swanson, PE, President, Performance Management Initiatives, Inc., St. Joseph, Michigan
269-428-7447
RNS@PMI-inc.com

Materials provided: 1) Hard copy of PowerPoint™ Slide Show for note taking, 2) PowerPoint file (PPT) of slideshow for use in cascade training in attendees' organizations, 3) Portable document format (Adobe PDF) file of ***The Phoenix Handbook***, the ultimate investigation manual for finding profit improvement in adverse experience (a $150.00 value).

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

Who Should Attend:

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

- Sponsoring or conducting root cause analyses of adverse events or their precursors
- Training event investigation teams
- Assessing the effectiveness of event investigations
- Managing the outcomes of event investigations
- Managing or assessing corrective action programs
- Defending the regulatory aspects of event investigations
- Safety Conscious Work Environment
- Employee Concerns Program

Who Should not Attend:

This workshop is **not** for people who want to continue thinking that:

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

What Will Happen in Class:

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

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

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

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

Workshop topics will include:

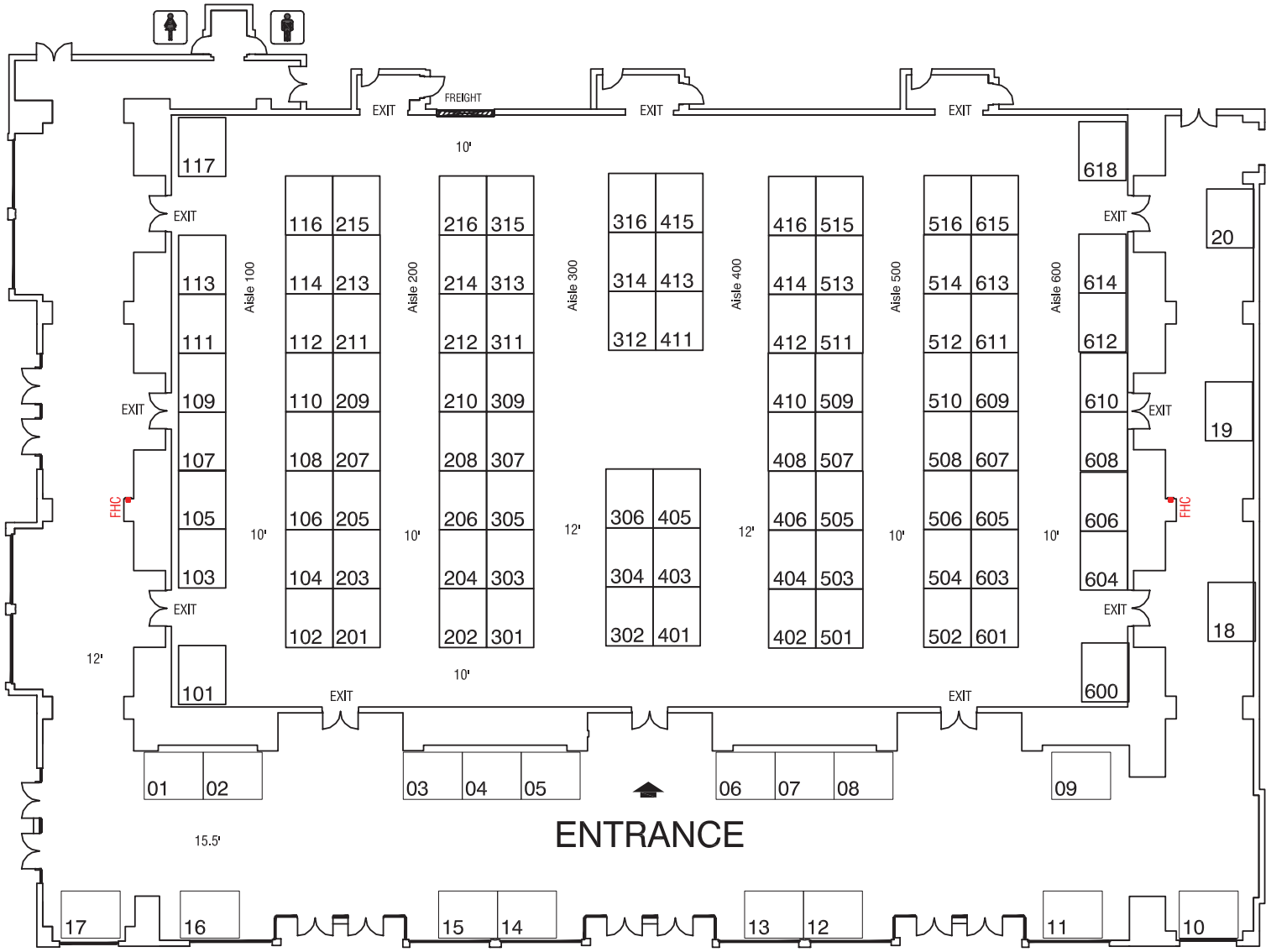
- Business Assessment of RCA Reports
- Regulatory Assessment of RCA Reports
- Using Event Investigation as a Window into the Culture
- Safety Culture in Root Cause Analysis
- Standard Approaches to RCA
- Business Incentives for Cost-effective Investigations
- Advance Preparation for Effective Investigation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

American Nuclear Society

2014 UWC Expo

Omni Amelia Island Plantation Resort

Amelia Island, Florida



Magnolia Ballroom & Foyer
92- 8'x10' booths
20-8x10 booths (Foyer)
Ceiling height 22' max.
Aisle widths as noted

Rev. 3/20/14

0' 5' 10' 20' 30'

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Advanced Inspection Technologies
Melbourne, FL (Booth 608)

A leading supplier of remote visual inspection equipment to industrial customers. AIT also rents video borescopes and pipe cameras for a variety of inspections. We are committed to providing the best possible inspection tools, the highest level of customer service and technical expertise.

ADZ
Charlotte, NC (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.

Aerofin
Lynchburg, VA (Booth 116)

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.

Alaron Nuclear Services
Wampum, PA (Booth 09)

Alaron's services include licensed facility access, a hot machine shop, large component processing and metals recycling, volume reduction and disposal, motor test and rebuild, pump rebuild and balance, fabrication and repair, Service Level I and other specialty coatings, decontamination for free release, waste segregation and processing services, and special projects.

Alphasource, Inc.
Philadelphia, PA (Booth 502 & 504)

Alphasource is a 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 compliance needs and deadlines are met.

Altran North America
Bordentown, NJ (Booth 503)

Altran North America is an engineering firm founded in 1986 to provide high quality engineering to the Power Industry. Altran provides services in Civil/Structural, Mechanical, Electrical and I&C engineering, Material Science, Failure Analysis, Aging Management Trainings, FAC, Buried Piping and Cyber Security. Altran currently employs over 300 highly qualified professionals in 13 offices across North America and over 20,000\ consultants worldwide.

AMEC
Naperville, IL (Booth 101)

AMEC is a global nuclear services provider delivering safe, high quality, cost-effective, and predictable engineering and construction solutions. Committed to the nuclear industry for more than 60 years, AMEC today has over 3,000 dedicated nuclear specialists. Our full range of professional services covers the life cycle from site selection through plant modification to plant decommissioning.

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

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

American Society of Mechanical Engineers
New York, NY (Booth 112)

The American Society of Mechanical Engineers is offering an NQA–1 Certification program, intended to strengthen and recognize an organizations quality assurance program when in compliance with the ASME NQA–1 standard. It provides a high level of confidence to a purchaser that a supplier will have the knowledge and resources to meet and implement a QA program in compliance with the NQA-1 standard.

AREVA Inc.
Lynchburg, VA (Booth 401)

AREVA provides its customers with solutions for low-carbon power generation in North America and all over the world.

As the leader in nuclear energy and a significant, growing player in the renewable energies sector, AREVA combines U.S. and Canadian leadership, access to worldwide expertise and a proven track record of performance. www.us.areva.com/

ATC Nuclear
Oak Ridge, TN (Booth 412)

ATC-Nuclear offers a variety of innovative services. Our warehouse holds over $70 million in surplus, unused parts and components. ATC-Nuclear's sourcing team are experts at finding obsolete parts in inventory at other utilities or via their extensive network of other sources. We offer a full line of commercial grade dedication, qualification and repair/refurbishment services. In addition we perform reverse engineering as well as engineering and qualifying replacement components for your maintenance and operational needs.

AZZ Nuclear
Fort Worth, TX (Booth 312)

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

AZZ Nuclear | NLI
Fort Worth, TX (Booth 314)

AZZ Nuclear | NLI is the largest third-party supplier of equipment, service, and engineering to the nuclear industry. NLI offers a vast array of electrical, mechanical, I&C, and HVAC products and services that minimize the engineering impact to nuclear plants. Equipment and services are supplied under NLI's 10CFR50 Appendix B NQA-1 QA Program as well as ASME Section III.

AZZ | WSI LLC
Norcross, GA (Booth 316)

AZZ Nuclear | WSI is the leading provider of specialty welding, corrosion mitigation strategies, equipment repair and installation, water jet peening, and other critical and highly engineered field services to the global nuclear industry. Services are supplied under WSI's 10CFR50 Appendix B / ASME NQA-1 compliant quality assurance program applicable to ASME Section III & XI work activities.

The Babcock & Wilcox Company
Charlotte, NC (Booth 14 & 15)

Headquartered in Charlotte, N.C., The Babcock & Wilcox Company is a leader in clean energy technology and services, primarily for the nuclear, fossil and renewable power markets, as well as a premier advanced technology and mission critical defense contractor. B&W has locations worldwide and employs approximately 12,000 people, in addition to approximately 10,200 joint venture employees. Learn more at www.babcock.com.

Barnhart
Memphis, TN (Booth 105)

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

Bechtel Power Corp.
Frederick, MD (Booth 402)

Since its founding in 1898, Bechtel has worked on more than 22,000 projects in 140 countries on all seven continents. Today, our 53,000 employees team with customers, partners and suppliers on diverse projects in nearly 50 countries. We stand apart for our ability to get the job done right—no matter how big, how complex, or how remote. www.bechtel.com

BHI Energy
Plymouth, MA (Booth 601)

BHI Energy is a leading provider of specialty maintenance, technical and professional solutions with more than 35 years of experience serving nuclear power facilities nationwide. We deliver turbine, valve and civil maintenance, specialty welding, radiation protection and professional/technical staff augmentation services individually or as a turnkey offering. Additionally, BHI provides innovative equipment and technologies such as Excel modular scaffolding, automated monitoring systems and contamination control materials.

Black & Veatch
Overland Park, KS (Booth 201)

Black & Veatch is a global leader in building Critical Human Infrastructure™. We provide leading consulting, project management, engineering, procurement, construction and operations solutions that span the life cycle of power projects. With nearly 70 years of industry experience, we understand the need for safe, reliable nuclear energy and are equipped to act as the full-service EPC provider for your nuclear power plant. (www.bv.com)

Black Diamond Services, Inc.
Grayslake, IL (Booth 213)

BDS has specialized resources that have held key leadership positions on major plant modifications, decommissioning projects, other maintenance and plant reliability modification projects, EPU Projects, RVCH projects, and SGR Projects. The BDS Team differentiates itself from its competitors with a core team of industry professionals that demonstrate high quality performance while meeting plant safety, schedule, and budget goals.

Burns & McDonnell
Kansas City, MO (Booth 104)

Founded in 1898, Burns & McDonnell is a full-service engineering, architecture, construction, environmental and consulting solutions firm. With the multidisciplinary expertise of more than 4,300 employee-owners in more than 30 offices, Burns & McDonnell plans, designs, permits, constructs and manages facilities worldwide with one mission in mind — to make our clients successful.

Candu Energy
Mississauga, Ontario (Booth 507)

Candu Energy Inc. (Candu) is a leading full-service nuclear technology company providing nuclear power reactors, products and services to customers worldwide. Candu is the designer of CANDU® reactors. Candu provides CANDU and LWR engineering services, plant lifemanagement programs, specialized tools and products enhancing plant safety, reliability and performance.

Certrec Corporation
Fort Worth, TX (Booth 13)

Founded in 1988, CERTREC is a regulatory compliance process expert that helps utilities manage the regulatory process to their advantage. With more than 300 cumulative years of regulatory and industry experience with the Nuclear Regulatory Commission (NRC), the Federal Energy Regulatory Commission (FERC), the North American Electric Reliability Corporation (NERC), and other Regional Entities, Certrec's Office of Licensing and Compliance, Office of NERC Compliance, Office of Assessment and Recovery, and New Plant services are used by utilities across North America.

CHAMPS Software, Inc.
Crystal River, FL (Booth 117)

CHAMPS "The Original CMMS" providing Work Control, Materials Management, Procurement, LOTO & Permits for Nuclear Power for 38 years. The latest in .Net web architected EAM for desktop and mobile computing on premises or in the Cloud. www.champsinc.com

Crane Nuclear Inc.
Kennesaw, GA (Booth 501)

CRANE Nuclear designs and manufactures a variety of valves, valve parts, and valve testing equipment for domestic and international nuclear power plants. Our trusted brands (PowerhouseTM, ViperTM, and Votes® Infinity) and reliable services provide complete valve solutions that help ensure nuclear plant safety through the reliable performance of motor-operated valves, air-operated valves, and checkvalves.www.cranenuclear.com

CSA, Inc.
Atlanta, GA (Booth 204)

CSA's PanoMap® is database-driven laser scanning technology that provides an as-built 3D laser scan model of the plant. PanoMap® offers powerful features which allow viewing and measuring, modeling, interference checking, equipment removal simulation, pre-job briefings, and integration with radiation monitoring equipment. Typical projects using PanoMap® include FWH, RC pumps, chillers, MSR, transformers, valves, and breakers, and supporting engineering changes. PanoMap® helps with knowledge retention offering a capability that the younger workforce expects.

Curtiss-Wright Corporation
Brea, CA (Booth 306)

Curtiss-Wright Nuclear Division is dedicated to providing unparalleled support to the power generation industry. For more than fifty years, global nuclear power utilities have relied on us for systems and solutions that set the benchmark for safety, quality, innovation and high performance. With thousands of installations at plants worldwide, we have long been recognized as an industry leader for our unmatched knowledge, experience & technical superiority.

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 placed DataGlance as the leading eWP solution provider.

Day & Zimmermann
Lancaster, PA (Booth 405)

Day & Zimmermann is the #1 ranked O&M contractor in the power industry. We are the leading provider of maintenance, modifications, and major projects to the nation's nuclear power generation fleet. Specialty services include condensers, valves, turbines, scaffolding, asbestos abatement & insulation, radiological protection, security screening, and professional & technical staffing.

Diakont
San Diego, CA (Booth 511)

Diakont is a full-cycle engineering, manufacturing, and service company that provides high-tech solutions which enhance the safety and economy of the nuclear power and pipeline industries. With a North American facility located in California, Diakont is a leading manufacturer of pipeline inspection robotics, digital I&C systems, fuel handling equipment, and radiationtolerant camera systems. Diakont products and services are utilized worldwide by power plants of all designs.

Doosan HF Controls Corp.
Carrollton, TX (Booth 404)

Doosan HF Controls supplies nuclear-grade safety and non-safety digital instrumentation and control system solutions to both nuclear and nonnuclear customers world-wide. Our safety platform has received approval from the US NRC, Korean KINS, and TUV-Rheinland and used extensively in major international I&C programs.

DRS Consolidated Controls, Inc.
Danbury, CT (Booth 202)

DRS Consolidated Controls, Inc. (DRS-CCI) has been a premier supplier of Class 1E and non-1E Instrumentation and Control (I&C) systems to the nuclear industry for more than fifty years.

DRS-CCI designs, qualifies, and manufactures both safety critical and nonsafety I&C systems for commercial nuclear power plants and the U.S. Navy.

Edgen Murray
Charlotte, NC (Booth 208)

Edgen Murray is an accredited ASME Material Organization (QSC-614) and compliant with NQA-1 and 10 CFR 50 App B. The scope of our safety and non-safety related materials includes pipe, tubing, fittings, forgings, flanges, plate, bars, fasteners, and valves in ferrous and non-ferrous grades. Our global stocking program offers quick scalability from our nuclear operations located in Charlotte, NC.

ENERCON
Kennesaw, GA (Booth 305)

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

EPM, Inc.
Framingham, MA (Booth 408)

EPM is the leader in Risk-Informed Performance-Based Safe Shutdown Analysis, PRA, Fire PRA, and Fire Modeling for 30 years. We have also been active participants in several other program areas, such as EQ, Q-List and Design and Licensing Bases Reconstitution (DLBR). We offer Software Tools for Automated Safe Shutdown Analysis, Cable and Raceway Management and EQ Analysis. Our team provides a one stop shop for all accident and fire safety analysis services.

EXCEL Services Corporation
Rockville, MD (Booth 06, 07 and 08)

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 over 28 years.

Flowserve Corporation
Charlotte, NC (Booth 410)

Since the late 1940's, Flowserve has been a pioneer of pump and seal technology for the nuclear power industry. We continue to support existing installations with OEM parts, repairs, upgrades, engineering, on-site technical service and new complete units. We also support new construction with new pumps, seals, valves and service.

Flowserve is a global supplier, here to support all nuclear utilities today and tomorrow. For more information, please contact Jim Cook at 1-845-548-9275.

G.D. Barri & Associates, Inc.
Peoria, AZ (Booth 102)

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

GE Hitachi Nuclear Energy
Wilmington, NC (Booth 207)

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

General Dynamics Information Technology
Chesapeake, VA (Booth 109)

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

GLSEQ
Owens Cross Roads, AL (Booth 610)

GLSEQ, LLC has developed a Severe Accident Instrumentation Line (SAIL) of Nuclear Grade Sensors and a Severe Accident Hydrogen Monitoring System (HCMS) for Design Basis Events and Beyond

Design Basis Events, that Provides Nuclear Power Plants with the tools to follow and track Severe Accident progression, provide Risk of Detonation to assess Containment Integrity, and Provide Plant Operators with the Best Mitigation Options. We are 10CFR 50 Appendix B with 40+ years of Experience.

Goodnight Consulting
Ashburn, VA (Booth 513)

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

Howden North America
Columbia, SC (Booth 515)

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

HukariAscendent, Inc.
Wheat Ridge, CO (Booth 510)

HukariAscendent is a Service Disabled Vietnam Veteran-Owned small business that provides quality engineering, technical, and professional support services to the nuclear industry. We are a recognized leader in nuclear licensing, engineering, safety analysis, and project management. Our network provides our clients access to over 11,000 engineers and industry professionals. Our employees have an average of more than 25 years experience.

Hurst Technologies Corp.
Angleton, TX (Booth 505)

Hurst Technologies Corp. is a professional engineering and consulting organization that has been providing expert assessment, design, licensing, and implementation of conventional and digital based nuclear plant control systems, protection systems and electrical systems to the nuclear power industry nationally and internationally for over 25 years.

Idaho National Laboratory
Idaho Falls, ID (Booth 02)

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 Nuclear
Lake Forest, CA (Booths 313 & 315)

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

Joseph Oat Corporation
Camden, NJ (Booth 309)

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

Kardex-Remstar / V&H Material Handling
Huntington Valley, PA (Booth 605)

KardexRemstar offers one of the broadest selections of automated storage and retrieval solutions designed to increase productivity and maximize storage space. Products include: VLMs, Horizontal and Vertical Carousels and Inventory Management Software. KardexRemstar's industry leading reputation is based on years of experience and successful applications storing parts and tooling within the Nuclear Industry. V&H Material Handling has been recognized as one of their best distributors and has applied the High Density Storage Solutions in many energy producing facilities.

Kiewit Power Nuclear Co.
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 full EPC services, maintenance/modifications and decommissioning.

Kinectrics
Toronto, Ontario, Canada (Booth 607 & 609)

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

KnightHawk Engineering
Houston, TX (Booth 216)

Specialists in Design, Failure Analysis and Troubleshooting of Static and Rotating Equipment. We are a Technology based Specialty-Engineering company offering Consulting, Field Services, Analysis and Testing. Wehave Nuclear Qualified, Registered Professional Engineering Staff. We have extensive experience in troubleshooting and solving problems in Nuclear power facilities.

Konecranes Nuclear Equipment & Services, LLC
New Berlin, WI (Booth 110)

Konecranes is a worldwide supplier of virtually every type of crane, hoist and lifting device including single failure proof dry cask storage cranes, cask transporters, and nuclear fuel handling equipment. Konecranes also provides a full range of engineering and field services for its own as well as all competing brands.

L-3 MAPPS
Montreal, Quebec, Canada (Booth 04)

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

Lockheed Martin
Dallas, TX (Booth 203)

Lockheed Martin Nuclear Systems & Solutions provides total systems solutions and services for civil nuclear power applications. Lockheed Martin is a lead systems integrator and provider of discrete and digital safety-critical instrumentation and control (I&C) systems for civil and Department of Defense customers for over 55 years.

Mesa Associates Inc.
Knoxville, TN (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 108)

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 303)

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

Nuclear News
LaGrange Park, IL (Booth 615)

"The World's Premier Nuclear Magazine" delivers your monthly marketing message to nearly 13,000 readers throughout 46 countries. Published by the ANS since 1959, Nuclear News is an integral part of the annual business development plans for hundreds of vendors and suppliers who advertise their nuclear-related products, services, and employment opportunities.

Contact Jeff Mosses
Phone 708-579-8226
E-mail advertising@ans.org
Web www.ans.org/advertising

Nuclear Plant Journal
Downers Grove, IL (Booth 411)

Nuclear Plant Journal, a US publication now in its 32nd 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. Representative: Anu Agnihotri.

Nuclear Safety Associates (NSA)
Charlotte, NC (Booth 415)

NSA is a premier provider of specialty engineering expertise serving a broad client base within the commercial nuclear industry including power reactor operators, reactor vendors, new build projects, and within nuclear fuel cycle operations from enrichment, to fabrication, transport, reactor core design and fuel management,

spent fuel and nuclear waste handling and disposal. NSA is a privately held company with headquarters in Charlotte, NC, with more than 150 employees in six offices across the US.

Performance Contracting Inc. (PCI)
Overland Park, KS (Booth 603)

Performance Contracting Inc. (PCI) has been an expert in the nuclear industry and is the largest insulation contractor in the U.S. Complete testing support for GSI-191 issue with the only NRC-accepted large flume test protocol that allows debris to settle. KAEFER PCI Reflective Metal Insulation (RMI) – Available with ACT Silflex® radiation shielding capabilities without LEAD

Radiation Protection Systems, Inc.
Groton, CT (Booth 211)

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 516)

RCS Corporation is a workforce solutions provider with an emphasis in the Energy Industry. RCS specializes in recruiting for all Engineering Disciplines, Project Management, Project Controls, Information Technology, Cyber Security and Business Professionals. RCS recruits top talent for Direct Hire and Contract Staffing positions as well as offering customized, efficient and low-cost Payroll Services. Job opportunities are updated daily on www.rcscorporation.com. RCS is WBE certified by the California Public Utilities Commission (CPUC).

Red Wolf Associates
Cary, NC (Booth 509)

Red Wolf Associates is an engineering service firm providing analysis services to the commercial nuclear power industry with expertise in areas such as thermal hydraulics, HVAC, Environmental Qualification (EQ), mechanical engineering, fire protection and dose analysis.

ReNuke Services, Inc.
Oak Ridge, TN (Booth 05)

ReNuke was built specifically to bring innovative human capital consulting and staffing programs to the commercial nuclear power market. The name is emblematic of our commitment to nuclear energy. ReNuke's service offerings are supported by a leadership staff with over 300 years of collective nuclear industry experience. We are technically qualified in project management, project controls, contract administration, engineering, operations, outage management, procurement, health physics, decommissioning, transportation, and quality assurance.

Rolls-Royce
Huntsville, AL (Booth 307)

Rolls-Royce provides a broad range of commercial nuclear expertise with a focus on providing nuclear utilities with integrated, long-term 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.

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

S&ME provides award-winning engineering and environmental services to the nuclear power industry. Since 1973, we have partnered with owners, operators and their consultants and contractors assisting them with permitting, construction and refurbishing nuclear power plants, fuel facilities and other nuclear energy related programs. As an employee-owned firm operating from 26 offices in the Southeast and Midwest, our goal is to provide the engineering and scientific services our clients require to achieve success.

SAP America
Newtown Square, PA (Booth 111)

As the market leader in enterprise application software, SAP helps nuclear operators run better. From back office to boardroom, plant floor to control room, desktop to mobile device – SAP empowers nuclear power plant operators to work more efficiently and use business insight more effectively to achieve operational excellence. www.sap.com/utilities

Saulsbury Industries
Odessa, TX (Booth 107)

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

SCHOTT Electronic Packaging
Southbridge, MA (Booth 508)

SCHOTT Electronic Packaging produces Electrical Penetration Assemblies (EPA's) for nuclear power plants and submarines. SCHOTT Electronic Packaging is a leading manufacturer of high-quality hermetic housings and components for the reliable, long-

term protection of sensitive electronics. Core technologies include glass-to-metal and ceramic-to-metal sealing, thermal sensing components and cutting-edge specialty glass competencies.

SPX Corporation
Charlotte, NC (Booth 416)

Based in Charlotte, North Carolina, SPX is a global Fortune 500 multi-industry manufacturing leader with approximately $5 billion in annual revenue, operations in more than 35 countries and over 14,000 employees. The company's highly-specialized, engineered products and innovative technologies are helping to meet rising global demand for electricity and processed foods and beverages, particularly in emerging markets.

SPX Flow Technology
Charlotte, NC (Booth 414)

Part of SPX Corporation (NYSE: SPW), the Flow Technology segment designs, manufactures, installs and services highly engineered solutions used to process, blend, meter and transport fluids, in addition to air and gas filtration and dehydration. The segment supports the food and beverage, dairy, pharmaceutical, oil and gas, energy, and industrial markets worldwide.

Structural Group
Hanover, MD (Booth 210)

Structural Group is firmly committed to its ongoing mission of sustaining and enhancing our customers' infrastructure. As a recognized leader in the specialty construction industry, Structural Group delivers turnkey solutions that integrate technology, engineering, and construction. 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 514)

Structural Integrity Associates, Inc. is an internationally recognized engineering leader in the prevention and control of structural and mechanical failures. We've provided world-class support and engineering services to domestic and international nuclear utilities for nearly 30 years. Call 1-877-4SI-POWER or visit www.structint.com to learn more about our services and solutions.

Sulzer Pumps (US) Inc.
Chattanooga, TN (Booth 413)

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.

SWDE, LLC
Charlotte, NC (Booth 604)

SWDE, LLC specializes in Asset Management and Equipment Reliability to safely maximize profitability. Our support will help solve the complex challenges facing companies today. With an earned reputation for excellence in the field of consulting services, we offer advice and support for every process and structure within your company.
www.swdeconsulting.com

System One
Pittsburgh, PA (Booth 209)

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

Teledyne Brown Engineering
Huntsville, AL (Booth 214)

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 212)

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 have demonstrated high immunity to EMI and noise and are qualified to meet U.S. NRC RG 1.97 Post Accident Monitoring requirements. The company also offers radiation measurement systems, personnel dosimetry, data recorders, and radiation hardened cameras.

Toshiba America Nuclear Energy Corporation
Charlotte, NC (Booth 304)

Toshiba America Nuclear Energy Corporation (TANE), established in 2008, operates to provide North American customers with Toshiba's nuclear expertise gained from 50+ years engineering, constructing and operating nuclear power plants. TANE's mission is to provide advanced nuclear technologies & services to ensure safe, economical & reliable operations to these customers.

Transco Products Inc.
Chicago, IL (Booth 106)

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

UniTech Services Group
Springfield, MA (Booth 301)

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 of their workers with minimal generation of radioactive waste.

United Controls International
Norcross, GA (Booth 614)

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

URS Corporation
Fort Mill, SC (Booth 311)

URS is a comprehensive 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, and our client base covers the industry-regulated and unregulated generators, U.S. and international NSSS suppliers, including SMR suppliers, and developers of uranium enrichment facilities.

ValvTechnologies
Houston, TX (Booth 206)

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, w 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.

Wanner Engineering, Inc.
Minneapolis, MN (Booth 612)

17 Machinery in conjunction with Hydra-Cell, has assembled a project team with a goal to address the **FLEX Seal RCS Injection Pump System** initiative. Combining experts from; fluid handling, power drive, system integration, and fabrication industries. The team's focus is to develop a simplistic approach without sacrificing integrity or reliability.

Westinghouse Electric Company
Cranberry Township, PA (Booth 302)

Westinghouse Electric Company is the only company with a single focus on nuclear power, providing a wide range of nuclear plant products and services to utilities throughout the world. Our nearly 13,000 employees worldwide provide fuel, spent fuel management, service and maintenance, instrumentation and control, and advanced nuclear plant designs. With the world's largest base of installed plants, no company has more nuclear experience.

Williams Industrial Services Group, LLC
Tucker, GA (Booth 205)

Williams is a family of companies providing a comprehensive range of industrial maintenance, modification and construction services to Power Generation, Pulp and Paper, Chemical, Refining, Manufacturing and other industrial markets.

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

Wolverine Fire Protection Co.
Mount Morris, MI (Booth 506)

Since 1958, Wolverine Fire Protection Co. has been committed to the preservation of life and property through the design, installation, maintenance, and service of fire protection sprinkler and alarm systems.

Zachry Nuclear Engineering, Inc.
Stonington, CT (Booth 113)

Zachry Nuclear Engineering, Inc. and our Numerical Applications Division is a full service engineering firm that provides Engineering, Analysis, Design, and Project Management services to the Nuclear Power Industry. Zachry's 11 design centers offer the services of experienced mechanical, electrical, controls, civil/structural engineers and designers who are skilled in power plant systems, engineering analysis, including GOTHIC™, RELAP, RETRAN, RADTRAD-NAI™, and CentralStor™, as well as modification package development. For more information please visit www.zhi.com and www.numerical.com.

Ocean Links Golf Course

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

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

Our most sincere thanks to the following contributors for their support of the 2014 UWC Golf Tournament

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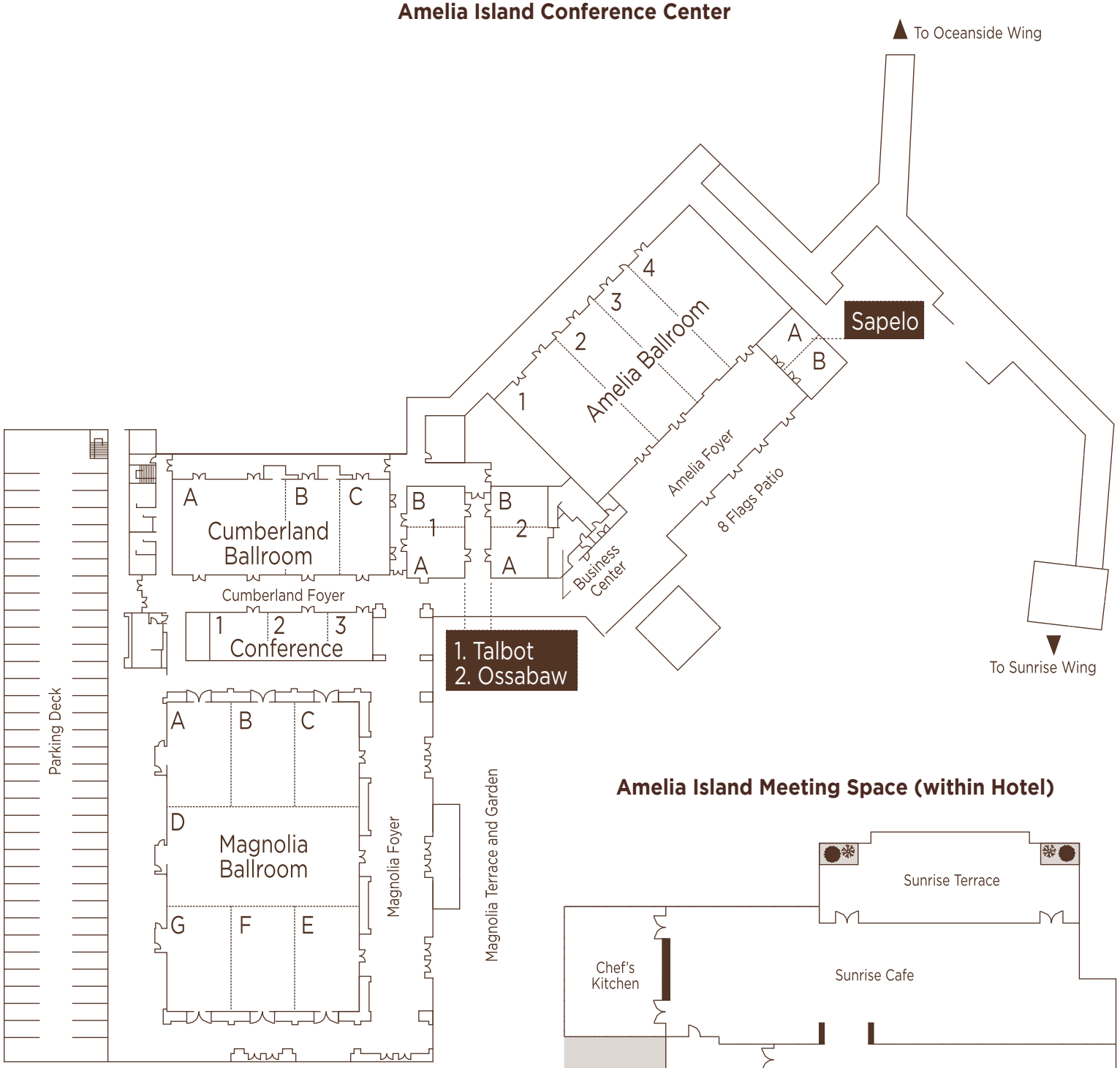
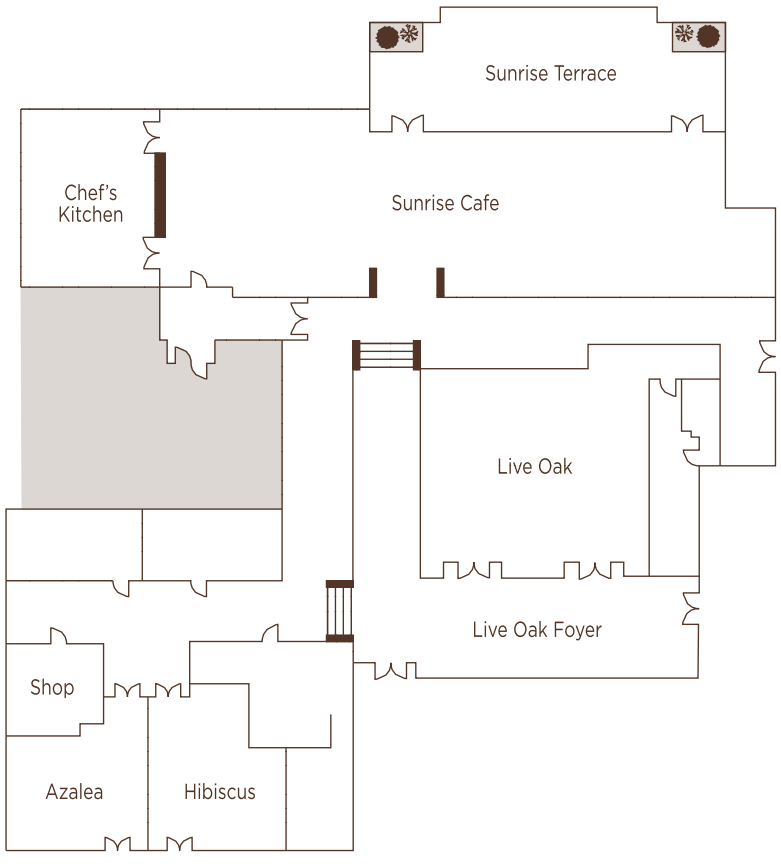
Amelia Island Conference Center



Amelia Island Meeting Space (within Hotel)



Omni Amelia Island Plantation

ANS Conferences

August 9-12, 2015 **August 14-17, 2016**

Amelia Island, FL