

# 2020 North American ISOE ALARA Symposium Agenda

January 6-8, 2020  
Marriott Key West Beachside  
3841 N. Roosevelt Drive  
Key West, Florida, USA 33040  
Phone: 305-296-8100

## Symposium Theme: ALARA's Role in Maintaining Nuclear Plant Assets For Potentially 80 Years of Operation

### Monday, January 6, 2020

\*All General Technical Sessions will be held in Salon A, B, and C

\*\*Vendors will be set up in Salon A, B, and C

\*\*\* Selected Presentations contain Proprietary or Restricted Information. This information will not be available to attendees outside of the NATC Symposium presentation in accord with new US government nuclear security instructions to the College of Engineering, University of Illinois (see Rizwan Uddin, Head- NPRE, if you have questions.)

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7:00 am      **Registration**      Pre-Function Foyer

### Plenary Session I: 2019 Dose Reduction Successes, Challenges & Future

**Session Co-Chairs:** Colin Pritchard, ISOE Work Management Group Chair & Refurbishment ALARA Director, Bruce Power and Brad Boyer, ISOE Bureau Vice Chair- Utility & Watts Bar RPM, TVA

8:00 am      **Welcome** to the 2020 North American ALARA Symposium, Information System on Occupational Exposure, Paris, Vienna, Tokyo and Illinois  
Brad Boyer, ISOE Bureau Vice Chair- Utility & Watts Bar RPM, TVA

8:15 am      **Restart Status of Japanese NPPs & Climate Change Challenges**  
Dr. Tadashi Narabayashi, Institute of Innovative Research, Tokyo Institute of Technology  
Tokyo, Japan

9:00 am      **Radiation Protection Challenges with Steam Separator \*\*\***  
Andreas Ritter, Deputy Manager, RP/Chemistry/Radwaste  
Leibstadt AG Kernkraftwerk, Switzerland

9:30 am      Coffee Break

9:45 am      **Radiation Protection Professional of the Year Award**  
Brad Cole, Corporate RPM, Entergy

10:00 am      **Safety Case Study at Arkansas One**  
Marty Phalen, RPM, Arkansas Nuclear One, Entergy

**Monday, January 6, 2020 (continued)**

- 10:30 am     **A Case Study on Canada’s Historic Radium/Uranium Mine**  
Douglas Chambers, Vice President; Senior Scientist Risk and Radioactivity,  
ARCADIS, Canada
- 11:15 am     **2019 World Class ALARA Performance Award**  
Prairie Island Nuclear Station, Sam Hobbs, RP Technical Advisor  
Citations presented by Brad Boyer, ISOE Bureau Vice Chair-Utility/Watts Bar RPM, TVA
- 12:00 noon   **Lunch**

**Session II: Current ALARA Topics at Nuclear Facilities**

**Session Chair:** Marty Phalen, RPM, Arkansas Nuclear One, Entergy

- 1:00 pm     **ALARA Aspects of Control Rod Drive Repairs at Braidwood**  
Jeff Cady, RPM, Braidwood 1, 2, Exelon
- 1:30 pm     **Benchmarking Results of Automated RP Survey Systems to Save RP Labor Costs & Improve Real-Time In-Plant Dose Rate Monitoring Accuracy\*\*\***  
John Covey, RP General Foreman ALARA, Diablo Canyon
- 2:00 pm     **Coffee Break**
- 2:15 pm     **Vendor Face-to-Face**
- 4:30 pm     **Cosmic Radiation Effects During Deep Space Missions**  
Dr. Dennis Chamberland, Principal Investigator, NASA Biomedical Engineering and  
Research Lab, Spaceport Integration Office, John F. Kennedy Space Center, Florida NASA
- 5:00 pm     **Adjourn**
- 5:00 pm – 6:00 pm  
**ISOE Website & ALARA Dose Trend Report Generation Help Desk Demonstrations**  
(Help Desk is available throughout the symposium for individual training on global ISOE website.)  
NATC staff (pre-function lobby)
- 6:00 pm – 7:00 pm   **Opening Vendor Reception**  
7:00 pm  
**All Attendees are cordially invited to attend to meet ISOE colleagues and learn about ALARA products and services from 23 vendors.**

**Tuesday, January 7, 2020**

7:00- 8:00 am **Continental Breakfast**

**Session III: Challenges in Radiation Safety**

**Session Chair:** Jeff Cady, RPM Braidwood, Exelon

8:00 am        **2020 - American Astronauts Return to Space and Targets the Moon and Mars**  
Dr. Dennis Chamberland, Principal Investigator, NASA Biomedical Engineering and Research Lab, Spaceport Integration Office SI-E10, John F. Kennedy Space Center, Florida  
NASA

8:45 am        **Bruce Power Major Component Replacement Update\*\*\* \*\***  
Colin Pritchard, Chair, ISOE Working Group on Data Analysis, Corporate RPM & Refurbishment Manager, Bruce Power, Canada

9:15 am        **Source Term Challenges at LaSalle Station**  
Joe Jaeger, Program Manager, LaSalle Station, Exelon

10:15 am       **Coffee Break in Exhibition Ballroom**  
Please continue to meet vendors and have Passport Card  
Marked by each vendor for prize drawing at Wednesday AM Break

**Session IV: Challenges in Radiation Safety (continued)**

**Session Chair:** Jerri Walters, RPM, Point Beach, NextEra Energy

10:45 am       **Chemical Engineering Approaches for Solving Co-58, Co-60 and Ag-110m Source Term Challenges\*\*\***  
Patricia Robinson, n.p Energy, Paul Skinner, Turkey Point Chemistry (retired)

11:15 am       **Update from Beznau Nuclear Power Plant, Netherlands**  
Stefan Schaeuble, Netherland (Invited)

11:30 am       **MSIV ALARA Case Studies (NATC study for NRC)**  
Richard Doty, NATC, University of Illinois

12:00 noon    **Lunch**

**Tuesday, January 7, 2020 (continued)**

**Session V: Radiological Work Management at Nuclear Power Plants**

**Session Chair:** Brad Boyer, NATC Board Chair & Watts Bar RPM, TVA

- 1:30 pm      **Prairie Island First Use of CZT Spectra Technology on PWR CRUD Burst**  
Sam Hobbs, RP Technical Advisor, Prairie Island, Xcel Energy
- 2:00 pm      **Integration of Simulated Sources & Virtual Reality Technology into RP Training**  
Colin Pritchard, Chair, ISOE Working Group on Data Analysis, Corporate RPM  
Refurbishment Manager, Bruce Power, Canada
- 2:30 pm      **Coffee Break**

**Session VI: Regulatory RP Update**

**Session Chair:** U.S. Nuclear Regulatory Commission, Region III (Steven Orth)

- 3:00 pm      **NRC Headquarters' ALARA Update**  
Mike Smith, Office of Nuclear Reactor Regulation (NRR), Division of Risk Assessment,  
Radiation Protection and Consequences Branch
- 3:30 pm      **Discussion on Accident Range Stack Monitors at Nuclear Plants**  
Steven Garry, NRR, Division of Risk Assessment, Radiation Protection and Consequences  
Branch
- 3:45 pm      **NRC Regional Inspector Panel Discussion**  
Steven Garry, Moderator, NRR, Sr. Health Physicist  
Harry Anagnostopolous, U.S. NRC, Region I, Sr. Health Physicist  
Bill Pursley, U.S. NRC, Region II, Health Physicist  
Valerie Myers, U.S. NRC, Region III, Sr. Health Physicist  
Natasha Greene, U.S. NRC, Region IV, Sr. Health Physicist  
John O'Donnell, U.S. NRC, Region IV, Health Physicist
- 5:00 pm      **Adjourn**

## Wednesday, January 8, 2020

7:00- 8:00 am Continental Breakfast

### **Session VII: ALARA Program Improvement that Achieve Costs Savings**

Session Chair: David Nestle, RPM, Palisades, Entergy

- 8:00 am        **Palo Verde Record Low Dose Refueling Outage Achievement**  
Joe Steward, General ALARA Supervisor, Palo Verde 1, 2, 3, APS
- 8:30 am        **Next Generation CZT Technology for Military, Industry & Science\*\*\***  
Andy Boucher, H3D, Ann Arbor, Michigan
- 9:00 am        **ClearView Radiation Shielding – Transparent Shielding for Daily Operations and Outage Support/Evolution of Wireless Audio Communications Systems in NPPs Tackling FCC Band Auction**  
Jayeesh Bakshi, Radium Incorporated
- 9:30 am        **Silflex Shielding Innovations**  
Richard Culbertson, American Ceramic Technology (Silflex Shielding)
- 10:00 am       **Coffee Break** (Vendor Passport Drawing)
- Session VIII: Future Go Green Nuclear Power Initiatives & ISOE Country Highlights**  
Session Chair: Mike Hale, Perry RPM, First Energy Corporation
- 10:30 am       **Taiwan Experience with Go Green Nuclear Referendum**  
Min Lee, Distinguished Prof. Min Lee, Dean of College of Nuclear Science  
Department of Engineering and System Science, National Tsing Hua University
- 11:30 am       **Country Dose Highlights in Canada, Mexico, France, UK, South Korea, Japan, Sweden, Swiss and USA**  
Richard Doty, NATC ISOE, University of Illinois
- 11:45 am       **2020 Symposium Summary & Adjournment**  
Brad Boyer, ISOE Bureau Vice Chair- Utility OECD IAEA & Watts Bar RPM, TVA
- 12:00 Noon    **Lunch**

**Note:** Region III & IV RPM Meeting will be held from 1:00 pm to 5:00 pm in the same Ballroom as the Symposium. Meeting features neutral ground discussion on Radiation Protection topics with regulatory and utility health physics. Sixty-first regional meeting since 1988 chaired by John Moser, LaSalle County RPM. All Attendees and vendors are welcome to attend at no additional costs.