2019 REGION II CONFERENCE

APRIL 10-12TH, 2019

OAK RIDGE, TENNESSEE

HOSTED BY THE OAK RIDGE AND UNIVERSITY OF TENNESSEE CHAPTERS OF U.S. WOMEN IN NUCLEAR

Join us this spring as we examine the "Past, Present, and Future of Nuclear" at the Women in Nuclear Region II Conference! Guest speakers will discuss East Tennessee's integral role in pioneering the fields of nuclear science and technology. We will also examine the current state of nuclear energy and the industry while looking to the future by exploring advances in nuclear technology in our region. Professional development, networking, and chapter development will be key elements included as part of the conference.

ACTIVITIES AND EVENTS:

- **April 10th 6:00pm - 8:00pm** – Welcome and Registration Mixer at DoubleTree Oak Ridge (map link)
- **April 11th 8:00am - 4:30pm** – Conference at Y-12 National Security Complex's New Hope Center (map link) featuring theme speakers and breakout sessions for professional and technical development and chapter best practices. There will also be an exhibition of local companies, showcasing the strength of the nuclear community in our region.
- **April 11th 6:00pm - 10:00pm** – Networking Social at DoubleTree Oak Ridge including dinner and fun with fellow attendees. There will also be an option to visit the American Museum of Science and Energy. Guest tickets are also available.
- **April 12th (time varies)** – Technical tours or a professional development seminar – see more information on the next page. All tours will depart from Y-12's New Hope Center. There is an additional fee for these activities.

REGISTRATION INFORMATION:

- How to register: http://buytickets.at/winoakridge/220800 or through the WIN-US News & Events webpage
- Registration deadline: March 15th, 2019. Attendance is limited. Conference general admission tickets and Friday, April 12th options can be purchased separately if needed.
- Hotels with group rates available at the following locations (use the links to book a room):
    - DoubleTree by Hilton – Non-government rate
    - DoubleTree by Hilton – Government rate
    - Comfort Inn
    - Hampton Inn by Hilton – Non-government rate
    - Hampton Inn by Hilton – Government rate
    - Town place Suites by Marriott

**If you have any questions, please contact Julie Cramer (WIN-OR@cns.doe.gov) or Amanda Bachmann (abachma2@vols.utk.edu).

FRIDAY, APRIL 12TH OPTIONS

Please note that the tours and professional development seminar will begin around the same time, so you may only register for one event.

ENHANCING HUMAN CAPITAL – PROFESSIONAL DEVELOPMENT SEMINAR – 8:00AM – 12:00PM

Within the next five years, approximately one quarter of the workforce is projected to be over the age of 55. That compares to only about 12 percent of the workforce in 1994. This trend has resulted in a new phenomenon: more generations in the workplace. That diversity can certainly provide benefits in terms of the unique backgrounds and perspectives that each generation brings. It can also lead to misunderstandings and conflict. Recognizing the potential for conflict and taking steps to proactively minimize that potential can help create a positive culture for all – one in which multiple perspectives and generations can thrive.

In order to drive a positive and innovative culture, you must be willing to invest in the people around you. This is vital to building and sustaining an organization where people can be their best and can work together effectively with others. Enhancing Human Capital is an optimistic opportunity to help us focus on bringing out a better version of ourselves and those around us. This session will provide an opportunity to learn how to start the journey of building trust, loyalty, and commitment to strengthen our personal and professional relationships. The results can make your work more productive, your job more enjoyable, and make your profession a more personal experience.

This interactive and educational seminar is presented by Chief Master Sergeant Christine Shawhan. Chief Shawhan is the Chief, Professional Continuing Education Division at the Air National Guard I.G. Brown Training and Education Center in East Tennessee. She leads a staff of 17 who support effective communications in public affairs and education for the ANG. Chief Shawhan has spent over 20 years developing future leaders in various roles such as Nursing Services, Clinical Medicine, Professional Military Education, and Continuing Education. She is a subject matter expert on Strategic Communication, Team Building, Leadership Development, and Diversity. Her years of military experiences have equipped her to deal with ambiguous, fast-changing environments where adapting is paramount to success. Her leadership has been recognized at various professional levels, including her teams receiving Command and Air Force Level Awards including the Enlisted Professional Military Education Center of the Year for 2013.

Y-12 NATIONAL SECURITY COMPLEX TOUR – 8:30AM - 11:30AM

Y-12 National Security Complex is a premier manufacturing facility dedicated to making facility dedicated to making our nation and the world a safer place and plays a vital role in the Department of Energy's Nuclear Security Enterprise. Since 1943, Y-12 has played a key role in strengthening our country's national security and reducing the global threat from weapons of mass destruction. Y-12 helps ensure a safe and effective U.S. nuclear weapons deterrent. We also retrieve and store nuclear materials, fuel the nation's naval reactors, and perform complementary work for other government and private-sector entities.

Learn about the history of the City of Oak Ridge and the history and future of Y-12 National Security Complex. The tour will include a tour of the Oak Ridge History Museum led by the city historian, D. Ray Smith. Back on site, participants will visit Building 9731, the first building completed on site during the Manhattan Project. In this building, which is also known as the Pilot Plant, scientists proved they could produce sufficient uranium to fuel an atomic weapon and developed isotopes for medical applications. While Building 9731 is part of the Manhattan Project National Historical Park, access to the public is still limited, so this is a rare opportunity to visit this historical site. Participants will also see the Uranium Processing Facility construction site and receive an overview of the site. **Must be a U.S. citizen and present a valid driver's license to participate.**

ANALYSIS AND MEASUREMENT SERVICE CORPORATION TOUR – 8:30AM - 11:30AM

Analysis and Measurement Services Corporation (AMS), a leading provider of instrumentation and control testing services for the worldwide nuclear power industry, is pleased to offer a tour of their state-of-the-art facilities in Knoxville, TN. The AMS campus spans over 100,000 square feet of office, laboratory, and expansion space staffed by highly qualified specialists and consultants with degrees in electrical, mechanical, nuclear, chemical, computer, and materials engineering. The tour will include demonstrations by AMS expert engineers on performance verification of critical nuclear power plant instrumentation such as response time testing and calibration verification of temperature and pressure sensors, rod control and rod position indication system testing and verification, cable condition monitoring and aging management, EMI/RFI troubleshooting and faultfinding, and Electromagnetic Compatibility (EMC) qualification of digital I&C equipment.

ORNL TOUR 1 – 8:30AM - 11:30AM

Oak Ridge National Laboratory was established in 1942 as part of the Manhattan Project. Today, it is the largest science and energy national laboratory in the Department of Energy. ORNL partners with the state of Tennessee, universities and industries to solve challenges in energy, advanced materials, manufacturing, security and physics. This tour will include two different facilities – the High Flux Isotope Reactor and the Radiochemical Engineering Development Center.

The High Flux Isotope Reactor (HFIR) is an 85MW research reactor providing one of the highest steady-state neutron fluxes of any research reactor in the world. The thermal and cold neutrons produced by HFIR are used to study physics, chemistry, materials science, engineering, and biology. The intense neutron flux, constant power density, and constant-length fuel cycles are used by more than 500 researchers each year for neutron scattering research into the fundamental properties of condensed matter.

The Radiochemical Engineering Development Center (REDC) is a hot cell facility used to produce irradiation targets and chemically separate and purify desired elements from irradiated targets. HFIR and REDC are the source of the majority the world's 252Cf supply, a critical radioisotope which serves as a strong neutron source used in radiography applications, the energy industry, and for nuclear reactor startup.

ORNL TOUR 2 – 8:30AM - 11:30AM

Oak Ridge National Laboratory was established in 1942 as part of the Manhattan Project. Today, it is the largest science and energy national laboratory in the Department of Energy. ORNL partners with the state of Tennessee, universities and industries to solve challenges in energy, advanced materials, manufacturing, security and physics. This tour will include two different facilities – Summit supercomputer and the Graphite Reactor.

Summit, ORNL's newest supercomputer, has a peak performance of 200,000 trillion calculations per second—or 200 petaflops, making it the fastest computer in the world. Summit provides unprecedented computing power for research in energy, advanced materials and artificial intelligence (AI), among other domains, enabling scientific discoveries that were previously impractical or impossible.

The Graphite Reactor, designed and built in ten months, went into operation on November 4, 1943, and supplied the first significant amounts of plutonium as part of the Manhattan Project. The Graphite Reactor produced the first electricity from nuclear energy, was the first reactor used to study the nature of matter and the health hazards of radioactivity, and for years after the war it was the world's foremost source of radioisotopes for medicine, agriculture, industry, and other purposes.