PE MATTERS STATE NEWS

NSPE-WY WYOMING SOCIETY OF PROFESSIONAL ENGINEERS

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State News for NSPE Members

BWX Technologies to Evaluate Microreactor Deployment in Wyoming

US-based BWX Technologies (BWXT) has signed a two-phase, two-year contract with the Wyoming Energy Authority (WEA) to assess the viability of deploying small-scale nuclear reactors in the state, National Engineering International reports.

Under the first phase one of the contract, BWXT "will work with Wyoming industries to define the requirements basis for nuclear applications of base heat and power needs of the trona mining operations within the state". In addition, BWXT will undertake engineering work to further the design of its integrated BWXT Advanced Nuclear Reactor (BANR) system that can integrate into Wyoming's future power needs. The BANR design is a 50 MWt high-temperature gas-cooled microreactor that will use TRISO (TRIstructural-ISOtropic) fuel.

According to the BWXT website, the BANR project "is developing a modular, factory-fabricated system that is small and light enough to be transported via rail, ship or truck and that can deliver 50 MW of thermal nuclear reactor power." It employs "mature and manufacturable high-temperature gas reactor (HTGR) technology with inherent safety features and a high working fluid temperature." It offers flexible options for energy output - including electricity, steam for process heat, or both (cogeneration) while minimizing greenhouse gas emissions. Read more.

University of Wyoming Receives Funding for New Blue Hydrogen Project

The University of Wyoming will receive $693,514 in support of creating a new hydrogen economy from the Wyoming Innovation Partnership (WIP), Sheridan Media reports. According to UW, the project, "Advancing Blue Hydrogen Production and Transport Infrastructure in Wyoming," examines the technical,

economic, environmental, social and policy issues related to nuclear-powered hydrogen produced from conventional and renewable gas resources in Wyoming.

The project phase will be completed at the end of a 12-month period and is led by faculty and researchers in UW's Department of Civil and Architectural Engineering and Construction Management and the School of Energy Resources, and in collaboration with Western Wyoming Community College, the Wyoming Department of Workforce Services, and Idaho National Laboratory.

Haibo Zhai, a UW professor and the Roy and Caryl Cline Distinguished Chair in Engineering, who leads the project said investment in clean hydrogen has potential to foster new technological and business developments and create job opportunities in the clean energy industry. "In order for there to be any kind of success for a new hydrogen economy," Zhai said, "we must simultaneously address the social impacts and educational infrastructure at all levels as we continue to develop the technology." Read more.

Stay up to date on legislative issues through the ***NSPE Advocacy Center*** .

Looking Toward a Promising Future

By Bill Atkinson, P.E., F.NSPE, President 2023–24

As I continue on my professional journey as the NSPE president, I often reflect on what our organization has done since its founding in 1934 and what NSPE needs to do going forward. The next stage of NSPE's future begins with our vision to ensure that the public lives in a world where engineering decisions are made by qualified and ethically accountable professionals. This will require that a unified engineering community step up to protect licensure laws across the nation and maintain high standards for professional practice. It will require that we embrace innovation and emerging technologies. This future will be bolstered by a new generation of engineers that we must encourage to understand that they can truly make a difference in the world. I look forward to playing my part and supporting others in these efforts.

Licensure and Emerging Technologies

Protection of the public health, safety, and welfare is at our core as professional engineers. Licensure is key to ensuring consistent standards of practice and professional competencies. We must make sure that these standards and competencies remain relevant to how we do things today, while looking toward the future.

We must continually question ourselves and the regulations that are in place. Are state licensing laws adequately regulating the profession of engineering without precluding otherwise qualified individuals from practicing? Is our current licensure model adequately serving its purpose? Are engineering licensure exemptions creating gaps where the public could be harmed? The answers to these questions can help drive us to better ways of safeguarding the public.

I believe that most individuals that become engineers do so because they are good at making things better. They are not tied to the world they are in today and are always pursuing excellence and improvement. I believe that by pooling our experiences as engineers, we can bring the best and brightest together to tackle any challenge that we may face as we seek to evolve. This evolution will involve the development and use of emerging technologies to spur innovative solutions. NSPE is supporting members by providing professional development that showcases the use of these technologies in a manner that is ethical and will benefit the public. Read more.

NSPECon24 – Call for Presentation Proposals

Prepare to share your expertise during NSPECon24 in Raleigh, North Carolina, August 7-9, 2024. Review the topics NSPE seeks in the areas of career development, leadership, and issues and trends, and think about how you can contribute. The submission site will open on November 1 and the proposal deadline is **January 10, 2024**.

The NSPECon23 program is still available online and may give potential presenters some ideas about the caliber of sessions needed for next year.

Volunteers are the Heart of NSPE: Get Involved and Share Your Voice

Volunteers are essential to advancing NSPE's vision to ensure a world where the public can be confident that engineering decisions affecting their lives are made by qualified and ethically accountable professionals. Volunteering is also a great opportunity for members to grow their professional network and connect with other leaders in the field.

There are several ways to get involved…here a few opportunities to consider

Serve as a mentor for an engineering student. If interested, send an email to education@nspe.org.

NSPE online community champion. Virtual opportunity to promote community and sharing of ideas through NSPE's online channels. If interested, send an email to membership@nspe.org.

Write an article for *PE* magazine. Share your expertise and insights on professional practice, education, ethics, leadership, licensure, public policy, DEI, emerging technologies, and sustainability and resilience by serving as a guest writer for *PE* magazine. If interested, email pemagazine@nspe.org for submission guidelines.

Collaborate with staff to draft/supply input on federal legislation, regulations or public comments to federal Congressional staff and committees (Identify your area(s) of vocational expertise.) If interested, send an email to governmentrelations@nspe.org.