CINTAC

Civil Nuclear Trade Advisory Committee

July 18, 2024

The Honorable Gina M. Raimondo Secretary U.S. Department of Commerce 1401 Constitution Ave., NW Washington, DC 20230

Dear Madame Secretary:

The Civil Nuclear Trade Advisory Committee (CINTAC) appreciates your leadership and support for America's civil nuclear energy. The Biden Administration's leadership shown in this area helps strengthen our economy, achieve U.S. climate change and clean energy priorities, bolsters U.S. competitiveness overseas, creates high-paying jobs, and strengthens U.S. energy and national security.

The rapid pace of technological advancement, coupled with the changing nature of work, has created a pressing need for a skilled and adaptable nuclear workforce. To ensure the continued prosperity and competitiveness of our nation, it is crucial that we invest in comprehensive nuclear workforce development programs that address the evolving needs of employers and workers alike.

Firstly, we emphasize the importance of accessible and affordable education and training opportunities. Many individuals, particularly those from disadvantaged backgrounds, face barriers to accessing quality education and training programs. By prioritizing funding for scholarships, grants, and vocational training initiatives, we can empower individuals to acquire the skills and knowledge necessary to thrive in the modern nuclear job market.

Furthermore, we draw your attention to the need for accurate nuclear industry data collection and analysis to inform nuclear workforce development policies, initiatives, and individuals. By gathering and analyzing accurate data on labor market trends, skills gaps, and future job prospects, policymakers can make informed decisions and allocate resources effectively. Additionally, this data can empower individuals to pursue a rewarding and fulfilling career in the nuclear industry.

Lastly, stronger outreach is essential in the K-12 arena to supply the nuclear workforce of the future. By increasing support for nuclear power education in STEM programs, the nation can grow the interest required to fill the workforce pipeline.

In this regard, the CINTAC offers the following suggestions for your consideration:

1. Collaboration with the Department of Labor to increase the funding and expand the programs for skilled craft labor training to support the growing need in the nuclear industry for domestic and international deployment of small modular reactors and microreactors: The expanded program

would support programs at technical and community colleges. It is crucial to invest in accessible and affordable nuclear education and training opportunities. By providing financial support to individuals from disadvantaged backgrounds, promoting scholarships and grants, and expanding vocational training initiatives, we can ensure that everyone has equal access to quality education and training.

With the growth of energy hungry industries such as Artificial Intelligence and Chip Manufacturing, a workforce to support the timely construction and operation of domestic small modular reactors is essential to the growing competition for clean, secure energy in the U.S. The U.S. will produce 20% of the world's leading-edge chips by the end of the decade. Semiconductor fabrication facilities are among the most energy-intensive facilities in the world. The process of producing silicon for chips requires high temperatures, with most plants using 11–13 kWh of electrical energy per kilogram of silicon produced.

2. Promote accurate data collection and analysis: Comprehensive data on nuclear labor market trends, skills gaps, and future job prospects is essential for informed decision-making. We urge action to address the outdated information present in the Department of Labor's Occupational Outlook Handbook (OOH) regarding nuclear-related jobs. The OOH serves as a critical resource for individuals seeking information on various occupations, and it is crucial that it provides accurate and reliable data.

Currently, the OOH contains information that is outdated, which can have serious consequences for those considering careers in the nuclear industry. This outdated information not only misguides individuals but also fails to accurately represent the potential opportunities and benefits associated with nuclear-related jobs. For example, the OOH currently states that: "Employment of nuclear engineers is projected to show little or no change from 2022 to 2032." However, the nuclear industry is preparing to deploy a variety of new technology designs within the decade with demand in the US forecasted to double or even triple current nuclear power generation. The U.S. Department of Energy Liftoff to Commercialization Report published in 2023 predicts that 236,000 workers will be needed to manufacture, construct, and operate advanced reactors through 2035 and that the current workforce could triple to more than 375,000 direct employees by 2050.

It is imperative that the Department of Labor revises and updates the OOH to accurately reflect the current state of the nuclear industry. By doing so, aspiring professionals will have access to reliable information that will enable them to make informed decisions about their career paths. Additionally, addressing this issue will contribute to fostering a more positive perception of nuclear-related jobs and their vital role in our nation's energy sector.

3. Increase nuclear workforce outreach with STEM programs: The CINTAC recommends working with the Department of Education by adding Energy into the modernized Career Clusters Framework. Some states have already embraced this cluster, but establishing Energy at a Federal level will drive a broader implementation required for an education in Energy.

In conclusion, we urge you to prioritize nuclear workforce development as a critical national agenda. By investing in accessible education, training and utilizing data-driven approaches, we can ensure that our nuclear workforce remains competitive, resilient, and adaptable in the face of growing energy needs.

Thank you for your attention to this matter. I look forward to your leadership and support in addressing the nuclear workforce development needs in the United States.

Sincerely and on behalf of the members of the CINTAC,

Carol Berrigan, Chairman

Carol 24

CC: U.S. Secretary of Labor

U.S. Secretary of Education

U.S. Secretary of Energy

Chair, U.S. Nuclear Regulatory Commission

CINTAC Members:

- 1. Mr. Billy Mack, President and CEO, Accelerant Solutions
- 2. Mr. Craig Piercy, Executive Director and CEO, American Nuclear Society (ANS)
- 3. Dr. Hash Hashemian, President, Analysis and Measurement Services Corporation (AMS)
- 4. Ms. Colleen Deegan, Vice President and Manager, Bechtel Power Corporation
- 5. Dr. Danielle Castley, Founder & CEO, Becq
- 6. Mr. Glenn Neises, Nuclear Director, Burns & McDonnell
- 7. Mr. Joshua Parker, Director of Business Development, BWX Technologies, Inc.
- 8. Dr. Yassin Hassan, University Distinguished Professor and Director, Center for Advanced Small Modular and Microreactors (CASMR) at Texas A&M University
- 9. Mr. Sean Oehlbert, Vice President, Corporate Business Strategy, Centrus Energy
- 10. Mr. Nicholas McMurray, Managing Director, Public Policy, ClearPath
- 11. Mr. Gary Wolski, Vice President, Sales, Curtiss-Wright
- 12. Mr. Rod Baltzer, Chief Operating Officer, Deep Isolation
- 13. Mr. Colin Austin, Senior Vice President of International Business, EnergySolutions
- 14. Mr. Donald Hoffman, Founder/President/CEO, EXCEL Services Corporation
- 15. Mr. Jarret Adams, Founder and CEO, Full On Communications, LLC
- 16. Mr. Adam DeMella, Senior Vice President, Global Government Affairs and Policy, GE Hitachi Nuclear Energy
- 17. Mr. Brandon Brooks, Senior Manager, Strategic Business Development, General Atomics Electromagnetics (GA-EMS)
- 18. Ms. Amy Roma, Partner and Global Energy Practice Area Leader, Hogan Lovells
- 19. Mr. Myron Kaczmarsky, Vice President, Holtec Government Services, Holtec International
- 20. Mr. Paul Amico, Director, International Industrial Practice, Jensen Hughes
- 21. Mr. Peter Hastings, Vice President, Regulatory Affairs & Quality, Kairos Power LLC
- 22. Mr. Seth Grae, President and CEO, Lightbridge Corporation
- 23. Mr. Paul Murphy, Managing Director, Murphy Energy & Infrastructure Consulting
- 24. Mr. Alex Polonsky, Partner, Morgan, Lewis, & Bockius LLP
- 25. Dr. Michael McMahon, Vice President, Transportation and Strategic Projects, NAC International
- 26. Ms. Carol Berrigan, Executive Director, Federal Programs and Supplier Relationships, Nuclear Energy Institute
- 27. Mr. Ted Garrish, International Nuclear Trade Advisor, New Horizons Nuclear Associates (NHNA), LLC
- 28. Mr. Clayton Scott, Executive Vice President, Business Development, NuScale Power, LLC
- 29. Mr. Robert Sweeney, Head of Energy and Infrastructure, nXSolutions
- 30. Mr. Jeff Merrifield, Partner and Energy Section Leader, Pillsbury Winthrop Shaw Pittman, LLP
- 31. Mr. Nathan Schukei, Sales and Business Development Manager, Rosemount Nuclear Instruments, Inc.
- 32. Ms. Marcia Burkey, Executive Vice President and Chief Financial Officer, TerraPower, LLC
- 33. Mr. Joseph Green, Chief Nuclear Officer, Thermal Engineering International (USA), Inc.
- 34. Mr. Alan Ahn, Senior Resident Fellow for the Climate and Energy Program, Third Way
- 35. Mr. Michael McMurphy, Senior Fellow, U.S. Nuclear Industry Council (USNIC)
- 36. Mr. Elias Gedeon, Senior Vice President, Commercial Operations, Westinghouse Electric Company