

# WHY NUCLEAR?

## ENVIRONMENTAL MANAGEMENT

- The field of nuclear environmental management is focused on the monitoring and cleanup of nuclear waste sites brought about from five decades of nuclear energy and weapons research, development, and manufacturing.
- There are over 1,500 nuclear and radiological facilities and 4,000 industrial facilities.
- New radiochemical facilities are being constructed, such as the Waste Treatment Plant at Hanford, the Depleted Uranium Hexafluoride Facilities at Portsmouth/Paducah, the Salt Waste Processing Facility at the Savannah River site, and the Sodium Bearing Waste Facility at the Idaho National Laboratory.
- These sites employ over 600,000 technicians in a spectrum of disciplines, including waste management, inspection, program management, site and facility restoration, and communication and engagement.

## NUCLEAR PROCESSES IN MANUFACTURING

- One of the largest growing sectors in the United States is manufacturing.
- Manufacturing includes multiple nuclear processes and steps to analyze products with nuclear techniques or to incorporate nuclear science into the manufacturing process.
- The manufacturing sector supports over 17.6M jobs with over 3.5M openings by 2025.
- Coupling manufacturing with nuclear skills and developing a nuclear-focused discipline will help students succeed in this growing sector.

## POWER GENERATION

- The United States produces over 20% of its total power from nuclear energy.
- Nuclear energy is the cheapest energy; at 1.7 cents/kWh, nuclear power is 29% cheaper than its closest competitor. Nuclear energy is also the most reliable energy and is the largest steward of greenhouse gases.
- America's nuclear energy industries employ over 475,000 people.
- Nuclear energy technicians earn well above average wages while working in a spectrum of disciplines that includes electrical, mechanical, instrument & controls, health physics, chemistry, and operators.

## LIFE & PLANT SCIENCES

- Radiological isotopes have a wide variety of applications, including industrial radiography, gauging applications, mineral analysis, flow tracing, mixing measurements, sterilization, aircraft manufacturing, oil exploration, and others.
- The economic benefits that arise from these industries add up to hundreds of billions of dollars.
- There is a strong renewed national security interest in having a domestic supply of radioisotopes, mainly technetium-99 and molybdenum-99. Several large facilities are under construction or are in the permitting process.
- Technicians in this growing field are similar to health physics technicians but will need additional education and training in subjects such as hot cell operations, spectroscopic methods, short half-life material handling, and solid state physics.



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# THE FUTURE OF NUCLEAR HAS NEVER BEEN BRIGHTER.

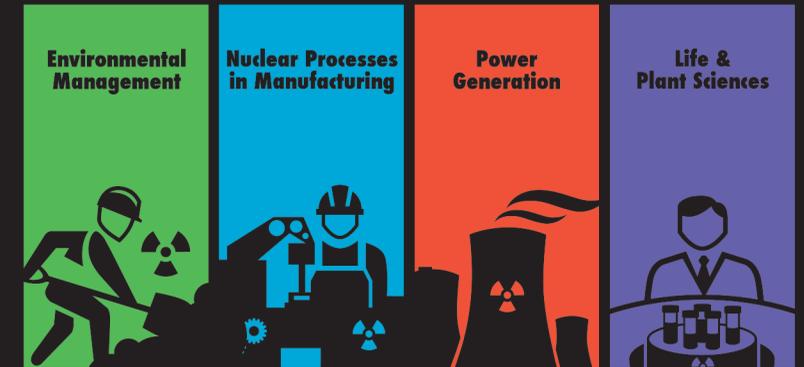


## OVER 65,000 JOBS available by 2030 across multiple disciplines



# RCNET

## Regional Center for Nuclear Education & Training



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