

GET INTO ENERGY CAREER PATHWAYS

Nuclear Power Plant Technicians: Putting STEMTM to Work

START
HERE

HIGH SCHOOL DIPLOMA
OR GED¹

OPTIONAL CREDENTIALS AVAILABLE

- National Career Readiness Certificate
- Energy Employability Skills Certificate
- Industry Fundamentals Certificate

Apprenticeship
(Union NMAP² and
Non-Union)

2 Year College

U.S. Navy

LEARN MORE / EARN MORE

Pass Pre-Employment
Tests — FFD³ Test

EDUCATIONAL OPPORTUNITIES FOR ADVANCEMENT

• Associate Degree (NUCP)

0-2 YEARS*

TECHNICIAN
(\$50,000)

• On the Job Experience

3-6 YEARS*

SENIOR TECHNICIAN
(\$77,000)

• Bachelor's Degree*
• On the Job Experience

6-8+ YEARS*

SUPERVISOR
(\$85,000)

STEM = Science, Technology, Engineering, and Math

¹ GED = General Education Development

² NMAP = Nuclear Mechanic Apprenticeship Program

³ FFD = Fitness For Duty

* Dependent on company requirements



NUCLEAR POWER PLANT TECHNICIAN: What will you do?

What competencies will you need? (built on energy foundational competencies—incremental as career advances)

Note: Most utilities use a pre-employment test—to pass you will need math, communications, problem solving, and mechanical reasoning skills.

STARTING OFF AS AN ELECTRICAL, MECHANICAL, OR INSTRUMENT & CONTROL TECHNICIAN:

- Provide assistance to plant operators by reading gauges, checking equipment
- Make work area safe
- Install and maintain equipment based on manufacturer's specifications
- Read instrumentation schematics to diagnose circuit trouble
- Teamwork
- Able to lift heavy equipment
- Listen and follow directions
- Be comfortable with heights
- Be able to work in noisy conditions
- Math skills including algebra, trig, and geometry
- Come to work on time and prepared
- Physical ability to climb stairs and ladders, operate stiff valves manually, lift weights, and control pneumatic or hydraulic wrenches
- Apply knowledge obtained during training in the work environment
- Work with various types of test equipment, including multi-meters
- Work with various types of tools
- Perform soldering

SENIOR TECHNICIAN:

- Inspect equipment, including motors and belts, fluid levels, and filters
- Take apart machines, then repair and replace parts using hand or power tools
- Use large equipment such as hoists and cranes
- Use repair manuals to determine problems and then fix them
- Do preventive maintenance checkups on machines, mechanical equipment, and on buildings
- Use information to diagnose and solve problems
- Be able to manage multiple tasks at one time
- Ability to understand basic mechanical principles (e.g., gear trains, centrifugal force, heat flow)
- Ability to comprehend entire systems and how they function
- Ability to foresee system implications of malfunctions or of own actions
- Ability to anticipate required future conditions in numerous interacting systems

SUPERVISOR:

- Determine schedules and work activities of team members
- Review team member performance and provide feedback
- Inspect records and log book entries to determine plant efficiency
- Prepare and manage budgets
- Report to management
- Deal with potentially stressful situations
- People management
- Communications skills
- Financial management
- Computer skills for report preparation
- Assign priority or sequence to the steps for completing a job
- Coordinate several, competing activities for efficient use of time and material
- Adapt work procedures or priorities in response to changing or unforeseen requirements or conditions



ENERGY INDUSTRY COMPETENCY MODEL



Energy industry careers offer:

- Excellent salaries
- Job growth & stability
- Great benefits
- Opportunities for advancement
- Community service

Where can I find training?

Go to the Get Into Energy web site at www.getintoenergy.com/training.php and check "Training Programs" or "Work-Based Training."

Where can I find a job?

Go to the Get Into Energy web site at www.getintoenergy.com/training.php and check "Featured Employers."