

GET INTO ENERGY CAREER PATHWAYS

Nuclear Power Plant Operator: 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*

• Government License 3-6 YEARS*

• Bachelor's Degree*
• Government License 6-8+ YEARS*

NON-LICENSED
OPERATOR
(\$70,000)

REACTOR OPERATOR
(\$77,000)

SENIOR REACTOR
OPERATOR
(\$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 OPERATOR: 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 NON-LICENSED OPERATOR:

- Provide assistance to outside plant operators by reading gauges, checking equipment
- Make work area safe
- Auxiliary equipment operations and maintenance
- Check gauges and levels
- Alternating Current / Direct Current
- Valves
- Pumps
- Engines / turbines
- Plant processes and systems (water, electric, etc.)

- 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
- Coming 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 to work environment

REACTOR OPERATOR:

- Ensure generating equipment runs when needed
- Prepare reports of unusual incidents or problems

- Use information to diagnose and solve problems
- Manage multiple tasks at one time
- Understand and apply basic mechanical principles (e.g., gear trains, centrifugal force, heat flow)
- Comprehend entire systems and how they function
- Foresee system implications of malfunctions or of own actions
- Anticipate required future conditions in numerous interacting systems

SENIOR REACTOR OPERATOR:

- Prepare and place systems and components in and out of service to support normal and off-normal system operations
- Conduct plant walk-downs and inspections
- Identify plant problems and generate trouble tickets
- Maintain operations logs, reports, and records regarding equipment performance
- Take action required to address abnormal occurrences

- Knowledge about state and federal regulations, guidelines, controls, and procedures to protect the public and plant workers
- Implement and maintain effective planning and operating practices to maximize efficient operation
- Supervise plant operations
- Direct and implement emergency operation procedures and event reporting



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."