

# GET INTO ENERGY CAREER PATHWAYS

## Non-Nuclear Generation Power Plant Technician: Putting STEM\* to Work

START  
HERE



HIGH SCHOOL  
DIPLOMA OR GED

EARN CREDENTIALS:  
Equivalent military experience  
a plus  
Pass Pre-employment tests to become

### LEARN MORE / EARN MORE

#### EDUCATIONAL OPPORTUNITIES FOR ADVANCEMENT

- Experience as a  
Production Technician I

2 Years

Production Technician I  
(\$62,000 average salary)

Production Technician II - IV  
(\$68,000 - \$81,000 average salary)

- Experience as a Production Technician  
- Long-term On-the-Job Training  
- 2 years of supervisory experience

4 - 6 Years

Shift Supervisor  
(\$96,000 average salary)

- 4 - 6 years experience as Shift Supervisor  
- 6 years supervisory experience  
- College degree preferred

Minimum  
6 years

Operations Manager  
(\$123,000 average salary)

\* Science, Technology, Engineering, and Math  
\*\* Dependent on company requirements

# NON-NUCLEAR GENERATION 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.*

## LEVEL 1:

- Provide assistance to plant operators by reading gauges and checking equipment
- Make work area safe

- Teamwork
- Able to lift 75 lbs
- Listening and following 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

## LEVEL 2:

- Alternating Current / Direct Current
- Valves
- Pumps
- Engines/turbines
- Plant processes and systems (water, electric, etc.)
- Programmable logic controls

- Physical ability to climb stairs and ladders, operate stiff valves manually, lift weights, 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

## LEVEL 3:

- 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

## LEVEL 4:

- 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

