Production Operators

OVERVIEW
Production operators are conscientious, alert, safety-oriented, independent professionals who visit oil and gas sites to ensure their efficient operation. They carefully check tanks, meters, pipelines, and production equipment to gather information and detect issues such as blocked pipes. As needed, they take steps to maintain the site’s productivity, such as restarting gas compressors when they are shut down or adding chemicals to water during cold weather to prevent freezing. They create and maintain records related to well production and ensure that digital applications for monitoring production work correctly. They ensure that site equipment is used in accordance with safety and environmental rules and report spills. Production operators must be available at a moment’s notice to help resolve equipment failures and other issues.

EVALUATE YOUR INTEREST
☐ I enjoy diagnosing problems and then fixing things, especially items with engines and motors.

☐ I am observant. I can use my senses to detect changes or issues with items around the house, such as appliances, devices, motorized equipment, and vehicles.

☐ I have a knack for collecting data and then analyzing it to make decisions about how to address problems or issues.

☐ I am dexterous. I have excellent hand-eye coordination and can use my fingers and hands to work on parts that might be in tight places.

☐ I can detect a single sound in the presence of other loud sounds and use my sense of vision to focus on small details at close range.
I am a problem-solver. I have a knack for asking smart questions that help others identify problems and issues. I work with others to formulate solutions to problems.

- I am independent-minded and willing to travel long distances by myself.
- I enjoy working with a wide variety of tools. I enjoy bringing people together from different areas of expertise with different strengths.

**CAREER CONNECTION**

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<th>How does this career affect me?</th>
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<td>Most of the energy you and your family and friends use for transportation, heating your home, and electricity comes from petroleum and natural gas products. Petroleum and natural gas are extracted from onshore and offshore deposits underneath the Earth's surface. Production operators travel to wells and oil and gas production facilities. They collect data and inspect machines and equipment to ensure their efficient operation. They also make sure oil and gas sites comply with laws and regulations to protect the environment. Reliable, safe, efficient, and clean wells and refineries make oil and gas production more efficient and less costly. This keeps energy products affordable for you and other customers.</td>
<td><strong>Chemical and Power Plant Operators</strong> operate and maintain machines and equipment at electric power and chemical plants. <strong>Industrial Engineering Technologists and Technicians</strong> apply principles of engineering to address problems related to manufacturing and production. <strong>Stationary Engineers and Boiler Operators</strong> operate and maintain engines, boilers, and other equipment for providing heat, electricity, and water to buildings and industry. They operate equipment, such as steam engines, generators, turbines, and boilers. <strong>Control and Valve Installers and Repairers</strong> install, maintain, and repair regulating devices, such as meters, gas regulators, thermostats, and safety valves.</td>
<td>Nearly 70% of Americans’ primary energy consumption comes from petroleum or natural gas products. The energy needs of countries, such as India and China, with large populations and rapidly expanding economies, are also increasing quickly. Petroleum and natural gas are extracted from wells that provide oil and gas companies with access to deposits below the Earth's surface. Production operators travel to wells and oil and gas production facilities. They collect data and inspect machines to make sure they operate efficiently and in compliance with environmental rules. Their work makes oil and gas production safe and less costly. This helps to ensure that energy products are affordable for consumers around the world.</td>
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TAKE ACTION

☐ Consider attending an open house at an area vocational school to gather information about programs offered for training students to operate specialized vehicles and equipment, particularly those that involve interpreting gauges and regulating the flow of energy.

☐ Consult manuals and online resources to learn more about the workings of mechanized items in your home, such as appliances, vehicles, and yard equipment. When possible, assist with repair work on these items, learning to use a variety of tools and your hands to replace, adjust, and manipulate parts.

☐ Visit a flea market or thrift store and acquire an old and inexpensive bicycle, appliance, power tool, or other mechanized item. Use tools and your hands to take the item apart, study how it works, and reassemble it. Make observations about differences between the item you acquired and newer, improved versions.

☐ Join an organization or take a class at school that diagnoses issues and then repairs mechanized items. Examples might include a small engine repair course, the robotics team, or mechanical sculpture.