

## POWER PLANT OPERATOR

**RAPIDS: 0440D**

O\*NET/SOC: 51-8013.00

REVISION DATE: 09/2019

**TRADE DESCRIPTION:** Control, operate, or maintain machinery to generate electric power. Includes auxiliary equipment operators.

**TASK PERFORMANCE:** Demonstrate knowledge and skill for qualifying as Journeyman. Applicable Job Qualification Requirements will be used as a guide in performing tasks and demonstrating knowledge in the following skill areas. Actual work time must be recorded in the Work Experience Log; each skill area must be completed.

### Applicable Ratings/MOS/NEC

**USMC MOS:** None

**USCG:** None

**USN:** B03A, GS, GSE, GSM, MM, MMA, MMN

**USA MOS:** 12P, 881A, 88L

### Related Instruction:

Trade related On-The-Job-Training (OJT) or Any Trade related schools/courses totaling 432 or more hours.

### Additional Requirement:

Hold and billeted by NEC 5633 OR B03A personnel may qualify.

Total Hours: **6000**

Skill	Description	Hours
A	OPERATING AND CONTROLING POWERPLANT	2300

	<ul style="list-style-type: none"> <li>-- Control generator output to match the phase, frequency, or voltage of electricity supplied to panels.</li> <li>-- Control or maintain auxiliary equipment, such as pumps, fans, compressors, condensers, feedwater heaters, filters, or chlorinators, to supply water, fuel, lubricants, air, or auxiliary power.</li> <li>-- Control power generating equipment, including boilers, turbines, generators, or reactors, using control boards or semi-automatic equipment.</li> <li>-- Operate, control, or monitor equipment, such as acid or gas carbon dioxide removal units, carbon dioxide compressors, and pipelines, to capture, store, or transport carbon dioxide exhaust.</li> <li>-- Operate or maintain distributed power generation equipment, including fuel cells or microturbines, to produce energy on-site for manufacturing or other commercial purposes.</li> </ul>	
<b>B</b>	<p><b>OIL AND WATER TESTING</b></p> <ul style="list-style-type: none"> <li>-- Collect oil, water, or electrolyte samples for laboratory analysis.</li> </ul>	<b>200</b>
<b>C</b>	<p><b>POWERPLANT OPERATIONS</b></p> <ul style="list-style-type: none"> <li>-- Adjust controls to generate specified electrical power or to regulate the flow of power between generating stations and substations.</li> <li>-- Start or stop generators, auxiliary pumping equipment, turbines, or other power plant equipment as necessary.</li> <li>-- Open and close valves and switches in sequence to start or shut down auxiliary units.</li> <li>-- Regulate equipment operations and conditions, such as water levels, based on instrument data or from computers.</li> <li>-- Communicate with systems operators to regulate and coordinate line voltages and transmission loads and frequencies.</li> </ul>	<b>2000</b>
<b>D</b>	<p><b>MAINTENANCE</b></p> <ul style="list-style-type: none"> <li>-- Monitor power plant equipment and indicators to detect evidence of operating problems.</li> <li>-- Take regulatory action, based on readings from charts, meters and gauges, at established intervals.</li> <li>-- Clean, lubricate, or maintain equipment, such as generators, turbines, pumps, or compressors, to prevent failure or deterioration.</li> <li>-- Make adjustments or minor repairs, such as tightening leaking gland and pipe joints.</li> <li>-- Examine and test electrical power distribution machinery and equipment, using testing devices.</li> </ul>	<b>1300</b>

	<ul style="list-style-type: none"> <li>-- Replenish electrolytes in batteries and oil in voltage transformers, and reset tripped electric relays.</li> <li>-- Inspect thermal barrier coatings on integrated gasification combined cycle (IGCC) equipment for sintering, phase destabilization, or temperature variances to ensure compliance with standards and insulation efficiency.</li> <li>-- Place standby emergency electrical generators on line in emergencies and monitor the temperature, output, and lubrication of the system.</li> </ul>	
<b>E</b>	<p><b>LOGS AND OUTAGE REPORTS</b></p> <ul style="list-style-type: none"> <li>-- Inspect records or log book entries or communicate with plant personnel to assess equipment operating status.</li> <li>-- Record and compile operational data by completing and maintaining forms, logs, or reports.</li> <li>-- Receive outage calls and request necessary personnel during power outages or emergencies.</li> </ul>	<b>200</b>