

Texas Municipal Power Agency

Personnel Vacancy Notification

(Qualified employees interested in applying for this position should contact the HR Department.)

Posting Dates: October 12, 2011 – until filled

Position Title: Electrical Engineer, Power Production

Reports To: Senior Maintenance Engineer

Salary:

<u>Min</u>	<u>1/3</u>	<u>Mid</u>	<u>2/3</u>	<u>Max</u>	
51,365	60,782	64,491	70,199	79,616	Date: October 7, 2011

Basic Function:

- Provide multi-discipline engineering as required by the Maintenance Department, assist outage coordinators, assist with planning of outage projects, oversee plant engineering projects and assist craftsmen or supervisors as deemed necessary.
- This position is responsible for providing engineering support of the process control and computer systems for a reliable operation of a modern coal fired generation station.
- This position is responsible for providing engineering support for maintenance and operation of the instrumentation and electrical systems and to ensure safe, reliable and economical operation of those systems at the Gibbons Creek Steam Electric Station.
- Nature & Scope: The incumbent is responsible to provide plant engineering support and overall management of major projects affecting plant operations and efficiency of systems and associated equipment.
- The incumbent will perform O&M engineering services including troubleshooting, evaluation of systems and components, review electrical designs and control logic changes.
- The incumbent will assist with technical reviews for labor, materials, and equipment. This will provide specification assistance in cost estimating, bidding, bid evaluations and recommendations, and monitoring of contractor performance, QA/QC and providing alternatives for obsolete equipment as required.
- The incumbent shall be responsible for administration of major/minor Capital Improvement and Renewal and Replacement Projects (CIRRP) to include development planning, project justification, scopes of work, equipment specifications and construction management.
- The incumbent is responsible for the review of as-built drawings and the preparation/review of turnover packages for Capital Improvement Projects and major engineering projects. The incumbent shall assist the Document Control Coordinator with recording and archiving said documentation.
- In addition to technical skills, the incumbent must have leadership skills acquired through either Agency training, college education, and other sources approved by management.
- The incumbent must have an understanding of control system engineering relative to design, operation, and maintenance.
- The incumbent will assist in the maintenance and monitoring of the process control system.

Principal Accountabilities:

- Review present and future maintenance practices for improvement potential. Perform diagnostics and troubleshooting of instrumentation, controls, electrical systems (including but not limited to generator, transformers, bus ducts, switchgear, motors, motor control centers, and breakers) and computer data systems.
- Assist in planning, coordinating and participation with plant outage work.
- Prepare and provide input regarding equipment specifications, equipment preventative maintenance, and scopes of work for major maintenance expenditures.
- Adhere to Electrical Codes & Standards; apply good judgment for repairs, construction and operation of electrical equipment. Track and report changes in specification, mechanical equipment, and plant systems.

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- Analysis of failed equipment to determine possible causes of failure and ways to prevent future failures.
- Review operational/maintenance problems which have not been resolved by “replacement in kind”, Maintenance/Operations efforts, or which require significant engineering analysis.
- Research/develop projects which will enhance unit operation, reliability, generation cost, etc. at the direction of the Senior Maintenance Engineer, Plant Superintendents and/or Plant Manager.
- Perform equipment inspections and evaluations.
- Direct and/or assist plant personnel in the successful completion of engineered and maintenance projects.
- Keep abreast of new technology and maintenance trends.
- Communication – Oral, e-mail, and written with all levels of the organization.
- Assist Agency Staff by providing engineering support.
- Technically assist Agency departments by performing procurement research, specifications, contract preparation, and assistance in bidding, evaluation, and recommendations. (to include maintenance, operations and purchasing departments)
- Assist Operations with regulatory testing such as the periodic lead/lag generator reactive capability tests.
- Assist with reviewing all contractor maintenance work to ensure compliance with technical specifications, that value is received for charges against projects, and that completion dates are met.
- Develop cost/benefit analysis, organizational requirements, and design criteria for future projects.
- Review of as-builts, Design Change Request (DCR's), and turnover packages.
- Troubleshooting equipment problems.
- Assist in maintaining and executing the Agency's regulatory procedures for generation.
- Interface with the Controls System Specialist on a routine basis.
- Assist in the development of Power Production Maintenance Procedures.

Typical Qualifications:

- This position requires a BS degree in Electrical Engineering with 2-3 years experience preferred.
- Proficient computer skills related to network hardware, cabling, protocols, peripheral equipment and software, etc. along with the use of data historians and MS Office products.
- Basic knowledge of distributed control systems, programmable logic controllers, computerized maintenance management systems, for operating industrial processes.
- Candidates should have a strong work ethic, the ability to work as part of a team, and good communication and organizational skills.
- A valid driver's license.

**PHYSICAL REQUIREMENTS OF THE
Power Production Electrical Engineer**

Does This Person:	Frequency	Not Done
Drive a vehicle	1	
Climb stairs	3	
Climb ladders	1	
Wear respiratory equipment	1	
Become exposed to climate changes	3	
Work with hand tools	2	
Lift over 30 pounds	1	
Carry over 30 pounds more than 20 feet		NA
Do strenuous labor (pushing, pulling, digging)		NA
Work more than 8 hours in anyone day	2	
Work alone	3	
Work in confined spaces	1	
Work in high places	1	
Work with/around solvents	1	
Work in areas with hazardous footing	1	
Work with/around temperature extremes	2	
Work with/around hazardous chemicals		NA
Have to distinguish colors	4	

Frequency	
1	Monthly – Less than 4 times a month
2	Weekly – Less than 7 times a week
3	Daily – Less than 24 times a day
4	Hourly