

City of Fort Worth, Texas Job Description

Classification Title	Turbine Operator		
Job Code:	TC5780	Job Family:	Technical / Para-professional
Pay Grade	508	Date Reviewed:	10/23/2019
FLSA Status	Nonexempt	Date Revised:	

GENERAL SUMMARY

Under direct supervision, responsible for the safe, efficient and continuous operation of a combined heat and power plant which includes two turbine/generator sets, a heat recovery steam generator (HRSG), two turbine/blower sets, and various ancillary equipment; operates/monitors the equipment and makes minor adjustments as necessary; maintains records and record changes in operation that can lead to possible problems.

ESSENTIAL DUTIES & RESPONSIBILITIES

The intent of this job description is to provide a representative summary of the major duties and responsibilities performed by incumbents of this job. Incumbents may be requested to perform job-related tasks other than those specifically presented in this description.

1. Operates various mechanical and electrical systems which include high pressure steam systems, auxiliary steam systems, combustion air systems, plant and control air systems, fuel systems, fabric filter baghouse, cooling water systems, feed water systems, and other auxiliary systems.
2. Identifies equipment problems, reports abnormal conditions and documents properly using logs, records, and our work request system.
3. Reads and interprets basic blue prints, technical specifications and operating manuals.
4. Understands and ensures electrical and mechanical equipment are de-energized and made safe for working conditions as required. Ensures appropriate permits are filed to complete required work.
5. Conducts routine rounds on equipment to ensure proper operation of equipment.
6. Assists with equipment maintenance when necessary to support overall maintenance of plant.
7. Performs routine maintenance of work area as required.
8. Ensures work area is environmentally safe and free of physical hazards. Reports any problems immediately.
9. Participates in area meetings, training and other plant meetings when applicable.

10. Performs other related duties as required.
11. Adheres to assigned work schedule as outlined in the Department and City attendance policies and procedures; ensures all behaviors comply with the City's Personnel Rules and Regulations.

KNOWLEDGE, SKILLS & ABILITIES

- **Knowledge of:**
 - Computerized maintenance management systems.
 - Heat Recovery Steam Generators (HRSG), steam turbine, gas turbines, plant auxiliary operations, equipment and systems during normal and emergency operation.
 - Microsoft Excel and Word applications.
 - Power plant operations, systems, and equipment.
 - Reading and interpreting blueprints, schematic diagrams, Piping and Instrumentation Diagrams (P&IDs), procedures and technical manuals.
 - Water analysis of HRSG water and necessary adjustments to chemical feed to maintain water quality to within desired specifications.

- **Skill in:**
 - Data entry.
 - Discerning and responding to verbal and auditory signals from control panel (i.e., Distributed Control System (DCS), Continuous Emissions Monitors (CEMs), and Programmable Logic Controller (PLC) systems).
 - Hand and power tools and equipment.
 - Making observations.
 - Operating assigned equipment.
 - Prioritizing work activities.
 - Trouble-shooting to solve problems.

- **Ability to:**
 - Analyze and interpret data to make sound recommendation on plant components.
 - Discern and respond to verbal and auditory signals from control panel (DCS, CEMs, PLC systems).
 - Perform water analysis of HRSG water and make necessary adjustments to chemical feed to maintain water quality to within desired specifications.
 - Properly operates HRSG, steam turbine, gas turbines, plant auxiliary equipment and systems during normal and emergency operation.
 - Read and interpret blueprints, schematic diagrams, P&IDs, procedures and technical manuals.
 - Trouble-shoot power plant operations, systems, and equipment to solve problems.
 - Understand and execute the equipment clearance lockout/tagout (LOTO) procedure, as well as, Job Safety Analysis/Work Authorization/Confined Space/Hot Work Permits.
 - Use addition, subtraction, multiplication and division to perform flow, pressure and meter calculations.
 - Use hand and power tools and equipment.

MINIMUM JOB REQUIREMENTS

Associate's degree in Mechanical Engineering, Industrial Engineering, or Electrical Engineering or a related field and three (3) years of experience working with Heat Recovery Steam Generators (HRSG), steam turbine, gas turbines, plant auxiliary operations, or related equipment and systems.

OTHER REQUIREMENTS

Valid Texas Class C driver's license.

WORKING CONDITIONS

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Depending on assignment, positions in this class typically require touching, talking, hearing, seeing, grasping, standing, stooping, kneeling, crouching, reaching, walking, repetitive motions, climbing, balancing, pushing, pulling and lifting; depending on assignment. Incumbents may be exposed to moving mechanical parts, odors, dusts, poor ventilation, chemicals, oils, extreme temperatures, inadequate lighting, intense noises, gases, vibrations, chemicals, oils and workspace restrictions.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Heavy Work – Depending on assignment, positions in this class typically exerting up to 100 pounds of force occasionally, up to 50 pounds of force frequently, and/or up to 20 pounds of force constantly having to move objects.