

MAJOR FUNCTION

This is highly skilled technical and analytical journey level work associated with the maintenance of water quality control for steam electric power plant equipment. Work is performed in accordance with established policies and procedures under the general supervision of a technical supervisor, and is reviewed through observations, inspections and by results obtained.

ESSENTIAL AND OTHER IMPORTANT JOB DUTIES**Essential Duties**

Performs quantitative chemical analysis of water used in various plant systems and addition of water treatment additives as required. Operates water demineralization (ion-exchange) or reverse osmosis equipment for periodic regeneration and maintenance. Records daily results of analytical work performed and completes operational reports. Reviews results of analytical work and operational reports and determines if deviation from normal or expected conditions exists. Develops and implements programs designed to determine causes of abnormal deviation and expected water quality of plant systems and causes of plant water treatment malfunctions. Prepares and mixes chemicals. Checks well pumps and water conservation. Studies and researches new analytical procedures. Maintains chlorination system and cooling tower acid system. Cleans water boxes, steam/mud drums, water screens, etc. as needed. Participates in the inspection of internal and external plant equipment and vessels and assesses the results of various treatment programs. Performs related work as required.

Other Important Duties

Performs general maintenance work in the lab on system equipment. Performs administrative and routine clerical work. May direct the work of subordinate personnel. Performs related work as required.

DESIRABLE QUALIFICATIONS**Knowledge, Abilities and Skills**

Considerable knowledge of the methods and principles of quantitative chemical analysis and chemical treatment of water used in industrial cooling water and steam generation systems, including the ability to identify sources of error in applying these methods. Considerable knowledge of all safety precautions and occupational hazards associated with handling supplies of chlorine, acid, caustic and other water treatment chemicals and reagents. Considerable knowledge of the principles and operations of water chlorination equipment, heat exchangers and steam generators. Considerable knowledge and/or recognition of water pollutants and the ability to assist in the implementation of programs designed to abate and/or monitor same. Ability to establish and maintain effective working relationships as necessitated by the work. Ability to analyze the chemical composition of water. Ability to systematically maintain records. Ability to recognize malfunction of chemical laboratory analytical equipment. Ability to follow complex oral and written instructions. Ability to prepare reports. Good physical condition. Skill in the use of microcomputers and the associated programs and applications necessary for successful job performance.

Minimum Training and Experience

Completion of the Electric Department's apprenticeship program covering the maintenance of water quality control for steam electric power plant equipment; or completion of an external equivalent apprenticeship program and one year of journey level work experience in power plant and/or industrial water treatment and analysis; or two years of college that included courses in chemistry and two years of experience in power plant and/or industrial water treatment and analysis; or possession of a high school diploma or an equivalent recognized certificate and four years of experience in industrial

water treatment and analysis after obtaining a class "C" or higher license for water treatment; or an equivalent combination of training and experience.

Necessary Special Requirements

Must be medically certified to wear a respirator and pass a respirator fit test prior to employment.

An employee assigned to the Purdom Power Plant, or who may be occasionally required to have unescorted access to the Port Facility portion of the Purdom Power Plant, (as determined by the General Manager - Electric and/or the Director of such employee's department), must obtain Transportation Workers Identification Credentials (TWIC) within 90-days of employment, and must maintain such credentials throughout his/her period of employment in that capacity, as a condition of continued employment.

At the department director's discretion, a valid Class E State driver's license appropriate for the vehicle(s) to be operated may be required at the time of appointment for any designated positions allocated to this class.

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