

## JOB DESCRIPTION

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**JOB TITLE: Chemistry Manager**

**COMPANY/DEPARTMENT: Arizona Electric Power Cooperative/Apache Station**

**EFFECTIVE DATE: October 2018**

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**Purpose:** Oversee and manage all chemistry programs, laboratory and staff to ensure optimum boiler, SDAS, and circulating cooling water chemistries. Manage water programs, including water conservation and reuse, as well as water supply. Provide leadership and development to chemistry staff.

### **KNOWLEDGE, SKILLS AND ABILITIES:**

- Bachelor of Science degree with major in chemistry or related field
- 5 or more years' experience in chemistry programs, laboratory and water conservation
- Minimum 2 years of management experience
- Strong knowledge of the chemistry of steam electric generator processes, including circulating cooling water, steam and wet limestone scrubber.
- Experience with computer applications to include: database, spreadsheet, word processing, etc.
- Excellent written and verbal communication skills
- Any equivalent combination of education, training and/or experience can be substituted for requirements listed above

### **ESSENTIAL FUNCTIONS:**

- Management of Chemistry, water sources, Laboratory Lead and manage chemistry staff in all aspects of plant chemistry control
- Train and develop chemistry support staff
- Prepare and maintain chemistry procedures
- Prepare and implement chemistry alarm warning and response protocol
- Stay current on new technology of chemistry & water treatment
- Continually work to optimize plant chemistry control as it relates to industry chemical performance metrics and Balance of Plant/unit heat rate

### **MARGINAL FUNCTIONS:**

- Prepare and manage water treatment/chemistry budget
- Documenting and reporting for history

### **PRINCIPLE CHALLENGES:**

- Communicating with all levels of the organization, the importance of chemistry to boiler and process equipment durability
- Coaching team members in order to develop power industry chemistry knowledge and troubleshooting skills

- Optimizing chemistry control costs
- Exercise good judgement prior to implementing chemistry control changes
- Managing multiple priorities

**FUNCTIONAL GUIDANCE:**

- Safety and Environmental group – Regulatory issues
- Operations Managers/Maintenance Managers – Conveying equipment specific information
- Manager Plant O&M – Special priorities
- Engineering – System capabilities/specs

**REVIEW AND APPROVALS:**

Recommend, advise and counsel on:

- Specific chemistry issues
- Chemistry program changes
- Personnel issues

**PERFORMANCE MEASUREMENTS:**

- Success of chemistry programs from economic and effectiveness perspective
- Success of water programs
- Success of Chemistry team development
- Effectiveness of coordination efforts
- Ability to communicate chemistry-specific needs

**ENVIRONMENTAL EXPOSURES**

What percent of your job is	Inside:50%	Outside: 50%
Temperature range, ° F	From: 0	To: 120

**EQUIPMENT, MACHINES, TOOLS**

Computer use expected to be <u>  3  </u> hours per day
Rare 1 - 5%    Occasional 6-33%    Frequent 34 - 66%    Constant 65% +

**POSTURES / MOVEMENTS**

	Frequency	Essential?	Description	Can employee change position?
Balancing				
Bending	10%	YES		
Crawling	10%	YES	Getting into condensor, boiler drum, testing for pipe	

			thickness	
Crouching / Squatting	10%	YES	Obtain supplies, inspecting	
Kneeling	10%	YES	Obtain supplies, inspecting	
Twisting/Turning	10%	YES		
Grasping	10%	YES	During installation use of hand tools and repairs	
Pinching	10%	YES	Coal testing ...preparation of bomb	
Sitting	40%	YES		
Standing	30%	YES		
Keyboarding	10%	YES		
Working in prone position (stomach)	10%	NO		
Working in supine position (back)				
Reaching Up	10%	YES	Collecting samples	
Reaching Out	70%	YES	Testing, analyzing, computer	
Wrist Turning	10%	YES	Turning valves	
Walking	70%	YES		
Finger manipulation	70%	YES	Keyboard operation	

## DRIVING

	Frequency	Essential ?	Description
Regular vehicle	5%	YES	

## SAFETY EQUIPMENT

	Frequency	Essential?	Description / Comments
Shoes	100%	YES	
Eye	70%	YES	

Head	70%	YES	
Hearing protection	70%	YES	
Respirator	5%	YES	
Other			

### VISION & HEARING

	Frequency	Essential?	Description/Comments
Near vision	65%	YES	Reading gauges
Far vision	65%	YES	Must read gauges from adjacent control panels
Color discrimination	65%	YES	Gauge tape, lights on control panel
Hearing sensitivity	30%	NO	

### PUSH / PULL

Force	Frequency	Essential?	Description/Comments
0 - 300 pounds	10%	YES	Assisting operators in duties
Describe what assistance would be available to assist in pushing/pulling (example other personnel, dolly, etc.)			

### CARRYING

Pounds	Frequency	Essential?	One hand or two hand carry?	Objects Carried	Maximum Distance Carried
0 - 35	10%	YES			
Describe what assistance would be available to assist in carrying (example other personnel, dolly, etc.)					

### LIFTING

Pounds	Frequency	Essential?	Objects	Lowest Point Lift / Lower	Highest Point Lift / Lower
0 - 10	80%	YES			
11 - 20	10%	YES			
21 - 35	5%	YES			
Describe what assistance would be available to assist in lifting (example other personnel, dolly, etc.)					

**CLIMBING**

	Frequency	Essential?	How many / How high?	Do you need to carry equipment while you climb? Describe equipment and frequency.
Stairs	60%	YES		
Ladder		YES		
Other	10%	NO		Varies depending on project, vertical ladders

**EXPOSURES**

	Frequency	Essential?	Description
Chemical contact	5%	YES	
Chemical inhalation	10%	YES	Coal Dust, Fly Ash
Confined spaces	5%	YES	Inspection, high elevations
High elevations	0%		
Radiation, ionizing	0%		
Radiation, non-ionizing	0%		
Moving objects	50%	YES	Rotating equipment
Noise	60%	YES	
Vibration	0%		
Wetness	10%	YES	
Slippery Surfaces	10%	YES	
Other			

I have read this job description and I fully understand all my job duties and responsibilities. I am able to perform the duties and responsibilities as outlined, with or without reasonable accommodation. I understand that my job duties and responsibilities may change on a temporary or regular basis according to the needs of my department or the company and if so I will be required to perform such additional duties and responsibilities. If I have any questions about job duties not specified on this description that I am asked to perform, I should discuss them with my immediate manager or a member of the HR staff. I further understand that this job description does not constitute an employment contract with Arizona Electric Power Cooperative, Inc.

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Employee Signature

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Date