



## SOUTHEAST ALASKA POWER AGENCY (SEAPA)

JOB TITLE	<b>Control Systems Engineer</b>	REPORTS TO	<b>Chief Executive Officer</b>
LOCATION	<b>All SEAPA Facilities</b>	FSLA Status	<b>Exempt (Staff Position)</b>
		SCHEDULE	<b>Standard 5 days/week 8 hours/day</b>

### **LOCATION**

The base location for this position is SEAPA Headquarters in Ketchikan, Alaska. Job duties will include travel to all SEAPA facilities.

### **POSITION SUMMARY**

The Control Systems Engineer maintains control systems, performs project management, and provides technical expertise to ensure the continued safe and reliable operation of SEAPA assets. This is a hybrid position that supports a wide variety of hydropower generation and transmission control systems. The successful applicant will possess a broad range of knowledge, skills, and experience in areas such as SCADA, PLC-based power plant controls, governors, turbines, auxiliaries, relays, RTU's, networking and communications equipment.

### **ESSENTIAL DUTIES & RESPONSIBILITIES**

- Maintains PLC-based control systems and communications interfaces required to reliably operate SEAPA's generation and transmission facilities (programming, I/O configuration, scaling, alarming).
- Responsible for SCADA HMI configuration, graphical development, data historian, trending, OS patches, and security.
- Configures and maintains networking equipment (firewalls, routers, switches, VLAN, encryption, TCP/IP, UDP, VPN).
- Supports protective relay maintenance and testing, and remote terminal units (RTU's).
- Maintains security elements (facilities, networks, risk modeling/remediation, intrusion monitoring).
- Optimizes control systems (generators, turbines, auxiliary equipment, batteries, etc.).
- Integrates new equipment (design, configuration, testing, implementation).
- Performs routine control systems maintenance, updates, and upgrades.
- Supplements information technology (IT) technical resources.
- Troubleshoots problems, conducts root cause analysis, and implements engineered solutions.
- Proactively manages all facets of assigned projects from concept through project close-out. Ensures scope, schedule, and budget are clearly defined and objectives are met.
- Provides project management support to others (develops wiring diagrams, layout drawings, and engineering specifications for system modifications).
- Maintains positive and supportive working relationships, providing guidance and instruction to less experienced personnel.
- Provides off-hour support for emergencies and major system events.
- Performs other duties as assigned.

## **QUALIFICATIONS**

### **Education/Licenses:**

- Bachelor of Science degree in a related Engineering discipline is required.
- Additional education and/or certifications in project management, control systems, instrumentation, electronics, and data communications are highly desirable.
- Valid Alaska driver's license (may be secured following recruitment if candidate is relocating from another state).

### **Desired Knowledge/Experience/Skills:**

- Must be a team player, self-motivated, and exhibit professional skills that reflect well on SEAPA.
- Minimum five (5) years of electric utility experience installing, maintaining, troubleshooting, and repairing control systems and data communications equipment. Hydro experience preferred.
- Strong ability to maintain control systems, including programming and implementation of complex SCADA and critical infrastructure communications equipment.
- Ability to quickly learn site-specific applications and system control concepts.
- Thorough understanding of electrical generation and transmission equipment.
- Practical knowledge of instrumentation control theory, electrical theory, networking, and security principles.
- Advanced ability to interpret electrical and control drawings and schematics.
- Experience with Schweitzer multifunction relays, GE PLC equipment, and Cisco switches.
- Strong troubleshooting and analytical skills.
- Good documentation and technical writing skills.
- Proficient in Microsoft Office Suite.
- Telemetry (modbus, DNP, serial RS-232 / RS-485, RTU, I/O).
- Telecom (VoIP, POTS, DDS, T1, etc.).
- Fiber Optics (OTDR, Maintenance, etc.).
- Ability to work with minimal supervision.

### **Physical Requirements:**

- Ability to speak English clearly and hear well when communicating over the telephone, radios, and in person.
- Physically able to walk, climb stairs, climb ladders more than 100 feet, and lift up to 60 lbs.
- Ability to safely traverse uneven, wet, slippery, challenging terrain.
- Work in different types of personal protective equipment (PPE).
- Work indoors in an industrial power plant environment.
- Occasional work outdoors and exposure to all seasonal weather conditions.
- Occasionally work around and over water.
- Occasionally required to work in elevated positions.
- Travel in fixed wing aircraft, helicopters, and boats.
- Risk of exposure to energized equipment, noise, rotating machinery, falling from heights and other hazards associated with remote field work or an industrial setting.
- Exposure to indigenous wildlife.

*This job description does not constitute a written or implied contract for employment. SEAPA reserves the right to revise or change duties and responsibilities as the need arises. Requirements are representative of minimum levels of knowledge, skill and abilities and in no way all inclusive.*