

Controls Engineer

Pinnacle Ozone Solutions

Pinnacle Ozone Solutions is a leader in advanced ozone generation systems for water and air treatment. Based in Cocoa, Florida, we design, manufacture, and support modular, high-efficiency ozone systems powered by our patented QuadBlock® technology. Our complete systems serve municipal drinking water, industrial wastewater, aquaculture, potable reuse, and air purification applications across the United States and Canada. We are ISO 9001:2015 certified and operate an in-house UL 508A listed Industrial Control Panel manufacturing facility.

We are seeking a Controls Engineer who is passionate about designing, programming, and commissioning industrial control systems for ozone generation and process equipment. This role requires a broad controls background combined with the ability to focus on the unique demands of ozone systems—precision residual control, safety interlocks, thermal management, gas handling, and reliable long-term operation. Ideal candidates are “jack-of-all-trades and master of a few,” with strong problem-solving skills and a drive for continuous learning.

How You Make an Impact

- Design, develop, and implement control systems for complete ozone generation platforms, including generators, chillers, oxygen feed systems, injection skids, off-gas destruct, and associated process equipment.
- Program and configure PLC logic (ladder logic, function block, structured text) and HMI/SCADA interfaces to deliver precise Ozone-On-Demand® control, PID residual (dissolved ozone / ORP) loops, sequence control, alarms, and safety interlocks.
- Perform engineering calculations to size and select components critical to ozone systems—pumps, valves, chillers/heat exchangers, and related fluid systems—including thermal analysis and pressure-drop calculations for both compressible (oxygen/ozone) and incompressible fluids.
- Collaborate with project managers, mechanical/electrical engineers, technicians, and fabricators to ensure on-time, successful project delivery from design through factory testing and field commissioning.
- Conduct testing, validation, and commissioning of control systems both in-house and at customer sites to verify functionality, reliability, and process performance.
- Create clear control system documentation including control narratives, test procedures, O&M manuals, and as-built drawings.
- Interface professionally with customers as a technical representative of the company during design reviews, factory acceptance tests, and commissioning.
- Identify potential operational or reliability issues and contribute to product redesigns and continuous improvement of both hardware and software.

Requirements and Skills

- Bachelor's degree in Electrical Engineering, Controls Engineering, Mechatronics, or a related field.
- Prefer 3+ years of hands-on experience with PLC programming (ladder logic, function block, and structured text). Experience with Schneider Electric Modicon platforms is a strong plus; other major platforms (Allen-Bradley, Siemens, etc.) are valued.
- HMI and SCADA network programming experience (Red Lion, Ignition, or similar preferred).
- Familiarity with sizing and thermal analysis of chillers and heat exchangers used in process cooling.
- Ability to perform pressure-drop calculations for compressible and incompressible fluids to support system design.
- Knowledge of integrated industrial control system components including power supplies, transformers, motor controls/VFDs/soft starters, contactors/relays, and process instrumentation (flow, pressure, temperature, dissolved ozone, ORP, ambient ozone, oxygen purity) and safety interlocks.
- Ability to read and interpret electrical schematics, mechanical drawings, and P&IDs.
- Excellent written and verbal communication skills with both technical and non-technical audiences.
- Strong analytical and problem-solving skills with attention to detail and system-level thinking.
- Willingness to travel occasionally for commissioning and customer support (primarily domestic).

Salary is based on experience and alignment with the requirements above.

If you enjoy designing and integrating reliable control systems that make a real difference in water quality and public health, we invite you to join the Pinnacle team.

Job Type: Full-time

Pay: \$85,000 – \$150,000 per year

Location: Cocoa, Florida (on-site)

Pinnacle Ozone Solutions is an equal opportunity employer. We value diversity and are committed to creating an inclusive environment for all employees.