

Job Title:	INSTRUMENTATION & CONTROLS ENGINEER	Original Date: Revised Date:	November 2019
Department:	Operations	Reports to:	Director of Eng. and Operations
FLSA Status:	Exempt		

BASIC PURPOSE

Responsible for design and sourcing of control systems and instrumentation equipment for multiple water treatment projects.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The following are the essential functions of the position. The list is not exhaustive, and may be supplemented as necessary.

- Expand and develop detailed electrical design, schematics and P&ID drawings based upon design engineer or customer specifications;
- Interpret SolidWorks mechanical design drawings for electrical requirements;
- Research and source supplier products that meet required functionality and compatibility;
- Recommend design and manufacturing changes necessary to maximize product quality and performance while minimizing production costs;
- Assist in development of control panel layout and schematic;
- Familiarity with components to meet UL508A, IEEE and NEC standards;
- Develop electrical bill of materials, instrument schedule, valve/actuator schedule, and cable schedule;
- Review and report on project costs with focus on cost savings to maximize project margin;
- Monitor quality assurance of manufactured and purchased product, including Factory Testing, if required;
- Ensure instrumentation and control design and engineering deliverables are delivered per specifications, and within budget and schedule;
- Assist in systems checkout and commissioning, including any control system programming modifications, coordinating with the control system suppliers and coordinating resolution to problems within other disciplines.

Assume other assignments as directed by Director of Engineering & Operations.

JOB SPECIFICATIONS

The following are the knowledge, skills and/or abilities preferred or required to perform this job.

EDUCATION and/or EXPERIENCE:

- Minimum Bachelor's Degree with technical major, preferably Electrical Engineering. Requirement may be offset with additional work experience.
- Minimum 3 years working with process control equipment.
- Preferred 3 years working experience using SolidWorks or AutoCAD.
- Preferred experience with PLC/HMI and VFD equipment.

SPECIALIZED KNOWLEDGE AND SKILLS:

- Must be proficient with the computer, office software.
- Applicant must be energetic, positive and assertive.
- Strong technical knowledge.

EQUIPMENT & APPLICATIONS /WORKING CONDITIONS & PHYSICAL DEMANDS: Reasonable accommodations are possible to enable people with disabilities to perform the essential responsibilities.

- Requires use of PC.
- General office environment.
- High levels of stress often occur.
- Physical demands include those required in a general office and warehouse environment (use of PC's, sitting, stooping/kneeling, reaching, handling, speaking, hearing and seeing).