# Instrument & Electrical Designer Department: Operations Immediate Supervisor: I&E Engineering Manager Location: Houston, Midland, or Clyde Office

# **Job Description:**

The I&E Designer will be responsible for producing instrumentation and electrical designs for projects in the oil and gas industry. The I&E Designer also works with other engineering disciplines to create instrumentation and electrical drawings packages for construction. The Designer creates and establishes simple designs consistent with good practices, client requirements and follow all required Codes & Standards.

## Position Duties/Responsibilities:

- Preparation of process flow diagrams (PFD), piping & instrument diagrams (P&ID), general equipment layouts, facility plot plans, and equipment and instrument lists for various company plants, pipeline, and related facilities construction projects.
- Communicate with vendors to review equipment availability, equipment cost and installation requirements.
- Attending project meetings to obtain full understanding of client needs and scope definitions, and to provide technical input toward efficient and effective designs.
- Ability to do electrical system walk downs and create as-built drawings.
- Create electrical construction drawings such as: one-line diagrams, motor circuit diagrams, grounding plans, conduit plans, interconnection diagrams, and area classification plans.
- Be able to create conduit and cable schedules which require the knowledge of the NEC Code in regards cable sizing and conduit fill.
- Design PLC panel layouts, wiring and bill of materials.
- Interact with other departments and suppliers to obtain pertinent information.
- Must have the ability to collaborate with designer/drafters to train and grow within the organization.
- Provide guidance to enhance the ability of others to obtain required information through use of departmentally developed tools and methods.
- Other functions as directed by management.

### **Qualifications:**

- Two (2) + years college drafting degree, or technical school training, or equivalent experience in CAD drafting software, processes, methods, or systems.
- Five (5) + years design/drafting experience
- Knowledgeable in referencing codes, and standards.
- Valid driver's license

### **Physical Requirements:**

- Frequently be required to stand, walk, sit, reach with hands and arms, climb stairs and ladders, balance, stoop or kneel, talk, and hear, and use fingers and hands to feel objects, tools, or controls.
- Use up-close vision, distance vision, depth perceptions, and the ability to adjust focus.
- Extended amounts of time at a workstation utilizing equipment such as computer monitors, keyboard, telephone, etc.
- In some cases, the site working environment may include outside conditions and exposure to elevated temperatures.
- Must be able to lift fifteen pounds at times.

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