



## Job Description: Lead Electrical & Instrumentation Designer

Alternative Titles: Lead Designer

Revised: February 5, 2010

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Business Unit: Engineering

Employee Type: Exempt

Reports To: Electrical & Instrumentation Manager

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**Purpose:** Lead Electrical and Instrument design efforts for projects related to chemical plants, power plants, and other heavy industries. This will include organization and planning of the overall design effort, and the monitoring and direction of junior designers. Support Electrical and Instrumentation Engineers with development of design and drawings. Efficiently and accurately develop wiring and installation drawings for electrical equipment and instrumentation. This job requires heavy interaction with designers and engineers within the E&I group, and from other disciplines, in a team environment to create multi-discipline design packages for construction forces.

**Work Schedule:** 7:30 am – 5:30 pm Monday through Thursday and 8 am – 12:00 pm Friday.

**Essential Skills** (*may include but are not limited to the ability to*)

- Assist engineers with initial design and drawing requirements
- Establish drawing set-up procedures applicable to the job for drafting personnel
- Conceptualize plans, details and sections to accurately convey construction or fabrication requirements
- Check and back-check drawings produced by drafting personnel
- Coordinate and analyze vendor supplied drawings and incorporate the required information into project drawings
- Apply the NEC and perform calculations related to sizing electrical circuits and equipment
- Manage the design efforts and direct junior designers and CAD drafters maximizing productivity
- Conceptualize and draw wiring diagrams, E&I layouts, and design details independently with minor instruction from project engineering
- Work within company policy as outlined in the Lauren Engineers & Constructors Craft Handbook and in compliment with the LEC Human Resources Policy Manual, LEC Safety Manual and OSHA Safety rules.
- Perform other duties as assigned by the supervisor as needed.

**Essential Qualifications**

- Knowledge of hazardous area electrical systems
- Proficient in current release of AutoCAD and Microstation, Microsoft Word, and Microsoft Excel
- Thorough understanding and efficiency with standard design and drafting practices
- Expertise in E&I design practices for heavy industry, including chemical, power, or mining industries
- Experience working with large motors, VFDs, MCCs, raceway systems, industrial lighting, and grounding
- Experience with instrumentation, hazardous location wiring practices, panel design, and PLC hardware
- 15+ years of design experience
- 10+ years of AutoCAD and/or Microstation experience
- 10+ years experience in an Architectural, Engineering and Construction industry
- Associate degree in Electrical Engineering or Control Systems Technology, or equivalent
- Read, write and communicate using English language sufficient to perform job functions (other preferences will be given for special language skills where there is a business need)

**Physical Requirements**

- Frequently lift objects weighing up to 25 pounds
- Climb stairs
- Sit for long periods of time
- Occasionally stoop, kneel or crouch
- Use hands and arms to reach for, grasp and manipulate objects

**Tool/Personal Protective Equipment Requirements**

- n/a

**Environment:** Work usually takes place in clean, pleasant, and comfortable office settings although some travel is required.

**Employee Review Acknowledgement**

I acknowledge that I have read the Job Description and I understand what would be expected of me. The Company reserves the right to change or reassign job duties or to combine positions at any time. I also understand that I am an at-will employee, and this Job Description does not constitute a contract of employment.

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Candidate/Employee Signature

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Date