



02/18/2022

POSITION DESCRIPTION

Job Title:	Machine Safety Design Engineer	<input checked="" type="checkbox"/> Exempt
Department name:	Electrical Engineering	<input type="checkbox"/> Non-exempt
Manager:	Director of Engineering	
Work location:	Billerica, MA	

Job summary

Perform machine safety risk assessments and develop solutions for reducing risk. Provide and maintain an expertise in the application of international machine safety standards. Perform machine electrical system design.

Essential duties and responsibilities

- Apply knowledge of international safety standards to ensure all aspects of a machine design are in line with the relevant standards.
- Lead cross functional team design reviews, brainstorms and risk analysis sessions.
- Engineer and specify all details of safety related control system circuits.
- Engineer and specify all details of machine electrical systems.
- Maintain a library of relevant international machine safety standards.
- Represent BTU with third party safety auditors and resolve safety related questions and issues.
- Teach other engineers about safety standards and the machine risk reduction process
- Plan projects involving new concepts and approaches to the design of new products.
- Interact with customers to understand their requirements and explain highly technical design information
- Acquire and manage outside resources as necessary to complete projects.
- Interact with other Engineers, Designers, Sales, Marketing, Manufacturing, and Purchasing personnel to complete design projects quickly and cost effectively.
- Travel globally to solve complex problems with equipment in the field, provide technical expertise to the Sales organization, work with and develop suppliers, and direct engineering activities.
- Actively participate in design reviews. Review designs with other Engineering, Manufacturing, Sales, and Marketing personnel as well as equipment users to ensure that designs meet all requirements.
- Prepare and present written, oral and visual material to support proposals, presentations, design reviews and project status.
- Develop cost estimates for proposed projects which include labor and material costs.
- Maintain project folders and report project status to Manager, Engineers and others on a regular basis.
- Plan, perform or direct and document experiments to prove design performance
- Coordinate project tasks and schedules, delegate work to designers / drafters and support staff as required.
- Duties are performed under light supervision by more senior engineering staff.
- Strictly adhere to all BTU safety policies.

Other duties and responsibilities

- Approximately 5% international travel according to business needs.

Skills and knowledge

- Highly knowledgeable in international machine safety standards
- Able to lead cross functional teams through the machine risk assessment process
- Experienced in developing practical solutions for reducing risk associated with machine hazards
- Able to perform all aspects of machine electrical system design
- Knowledgeable in machine electrical system components, sensors and instrumentation.
- Experienced with managing resources and details required to efficiently complete large and small development projects
- Able to make decisions independently on engineering problems.
- Able to handle multiple projects and tasks concurrently.
- Strong ability to work with others and be an active part of a cross functional team.
- Excellent problem solving and trouble shooting skills.
- Highly organized and detail oriented with the ability to prioritize, manage multiple projects and work to a schedule.
- Microsoft Office proficiency.

Education and experience

- BS in Electrical Engineering
- A minimum of 5 years' experience in machine design
- Highly experienced with machine design and conducting machine safety risk assessments