



JOB DESCRIPTION

A IDENTIFICATION INFORMATION

- A1 Job title:** Instrumentation Engineer
- A2 Department/Programme:** Bottling Plant
- A3 Section/Project:** Bottling Plant
- A4 Reports to (position):** Bottling Plant Manager
- A5 Supervises (Name of Positions):** None

B JOB DESCRIPTION

B1 Overall purpose of the job.

Site Instrumentation and Electrical Support/ Maintenance – Covering all site Instrumentation and Electrical aspects of blending, packaging and facility equipment and machinery.

Key Responsibilities;

- Fully maintain plant and equipment in a safe and reliable condition that will enable all site production and efficiency targets to be achieved.
- Manage, conduct and coordinate maintenance services for electrical aspects of equipment on site as per standards.
- Completing timely, comprehensive and accurate preventative maintenance reports.
- Responsible for review & action maintenance requests.
- Developing maintenance plans and SOPs for maintenance activities.
- Capturing description and procedures used for troubleshooting and repairs performed.
- Installing electrical components, wiring systems and testing the equipment to ensure all devices are working properly and safely.
- Applying safe electrical work practices including LOTO and Arc Flash safety- NFPA 700.
- Adopting key problem-solving techniques to find root causes behind instrumentation/ electrical asset failures.
- Understanding and troubleshooting Industrial Networks, including Ethernet, Device NET, Control NET, and others.
- Applying working knowledge of data network, switches, routers and servers.
- Observing and testing the operation of systems and equipment in order to diagnose malfunctions, using voltmeters, process meters, network analysers and other testing devices.
- Determining equipment centre lines, track deviations, stop and fix any equipment deviating from standard operating parameters.
- Communicating effectively with management, engineers, mechanics, equipment operators and demonstrating equipment functions and features to machine operators.



JOB DESCRIPTION

- Deciding on temporary remedial measures and modification on Electrical systems to sustain production while arrangements for permanent solution are being made and ensuring plant safety is maintained.
- Identifying opportunities to improve asset care and drive these ideas forward.
- Design/Implementation of modifications to the existing electrical systems and equipment to suit user requirements.
- Safety and compliance for all instrumentation/ electrical works on site.
- Ensuring that the safety needs such as Arc Flash/shock Hazard safety, confined space entry, LOTO, Line Break Permit, hazardous materials, hand tool safe use etc are given a top priority in operations support and work execution.
- Ensuring quality workmanship is delivered.
- Ensure compliance with all statutory obligations and relevant legislation and standards.
- Protecting the integrity and quality of product at all times.
- Developing their own knowledge and understanding of equipment used across the bottling plant.
- The Engineer often works alone, therefore, this role requires decisions to be made and work planned using own initiative.
- Contract manager for all instrumentation/ electrical vendors/suppliers to site.
- Inventory control for engineering spares and evaluation of the quality of spares supplied.
- Track spares availability.
- Train and coach operators, technicians, and contractors on electrical/ instrumentation/process systems.
- Continuously maintaining proficiency in Automation and controlling systems.
- Obtaining drawings, instructional manuals and special procedures as needed from files or other sources and making any additional sketches, diagrams etc. when necessary.
- Performing any other related duties as may be assigned/delegated to you by Manager Bottling Plant/Management from time to time. Please note that you may be required to work anywhere within the company.

C Knowledge, qualifications & Experience

CI.1 Education:

- University Degree in Electrical Engineering and Automation

CI.2 Experience, Skills and Competences:

- At least 5 years working experience in FMCG operations and maintenance, preferably in the Bottling industry.
- Hands-on working on electrical equipment, PLCs and instrumentation.
- Knowledge on mechanical engineering will be an added advantage.

KNOWLEDGE OF:

- Reading and translating the information found within PLC code, Schematic wiring. Ladder and P&ID process diagrams.
- Understanding PLC, HMI, VFD's, Servo, Sensors, Instrumentation and Industrial control systems, including advanced programming techniques and configurations.
- Possessing knowledge of and applying electrical standards.



JOB DESCRIPTION

- Possessing an understanding of calibration procedures for process instruments which measures temperature, pressure, flow, level and composition along with understanding of process control and troubleshooting.
- Knowledge of safe electrical work practices including LOTO and Arc Flash safety- NFPA 700.
- Understand Bottling processes (Blowmoulder, Filler, Capper, Labeller, Packer Machines), packaging, and utility operations.
- Mechanical equipment (functions, configuration, calibration, testing and fault finding).
- Ability to interpret technical drawings, maintenance manuals, schematic drawings and general engineering specifications to carry out the job.
- Knowledge of manufacturing SAP application.
- Thorough knowledge of SCADA operations and interface of mechanical and electrical systems on industrial controls.
- Reliability Centred Maintenance (RCM).
- Mean time to repair (MTTR) and Mean time to failure (MMTF).
- Failure Mode Effects and Criticality Assessment (FMECA).
- Knowledge of Bottling procedures to avail plant utilities and equipment service.
- Trouble shooting skills.
- Ability to communicate in both written and oral formats.
- Planning/ Presentation/Organizational skills.
- Thorough knowledge in local and electrical international legislation and standards.
- Thorough knowledge in safe systems of work, permit to work systems.
- Knowledge of World Class Manufacturing/ Lean Manufacturing standards.
- Role model of high-performance coaching skills and people management.
- Good industrial relations skills.
- Familiar with skills and competency descriptions and able to interpret training and development needs.
- Knowledge of ISO 9001 for Quality, Energy Management Policy HACCP- ISO 22000 for food safety, ISO 14001 for Environment & OHSAS – ISO 18001 Health and Safety standards plus any other management systems that may apply.
- Understanding of process control and performance measurements.

ABILITY TO:

- Solve problems analytically and quickly.
- Work fast and efficiently.
- Creative and innovative.
- Flexible and Result oriented.
- Plan, organize, supervise and participate in the operations.
- Adapt effectively to changing needs/ requirements.
- Generates insight about what internal customers require in terms of technical training and development.
- Train, supervise and evaluate personnel.
- Communicate effectively both orally and in writing.
- Plan and schedule maintenance work,
- Maintain accurate records of manuals, calibrations and maintenance activities.
- Work independently with little direction.
- Observe health and safety regulations.



JOB DESCRIPTION

- Read, interpret, apply and explain rules, regulations, policies and procedures.

PHYSICAL DEMANDS:

- Work is performed while standing, sitting and/or walking.
- Requires the ability to communicate effectively using speech, vision and hearing.
- Requires the use of hands for simple grasping and fine manipulations.
- Requires bending, squatting, crawling, climbing, reaching.
- Requires the ability to lift, carry, push or pull medium weights, up to 75 pounds
- Requires activities involving being around moving machinery, exposure to marked changes in temperature and humidity, and exposure to dust, fumes and gases.
- A flexible approach to working hours may be required to suit production demands or to meet critical deadlines.
- Callouts maybe required.

Knowledge of computer:

- Proficiency with Microsoft Office Suite to support daily operations.
- PLC – Siemens
- AutoCAD
- Pneumatic
- Instrumentation Systems
- Visual Basic
- Proficiency in SAP

Communication Skills:

- Strong verbal and written communication skills to effectively relate with team members and the management.
- Requires the ability to communicate effectively using speech, vision and hearing.

SIGNATURES:

Job Holder (name):

Sign:..... Date:.....

Line Supervisor (name):.....

Sign:..... Date:.....