

Process & Automation Control Engineer

GreenMantra Recycling Technologies Ltd.
Specialty Chemicals/Petroleum Processing Plant
Brantford, Ontario

GreenMantra™ Technologies is a specialty chemical company that has commercialized a patented and proprietary catalytic depolymerization technology to economically produce a variety of waxes and specialty chemicals using an innovative and environmentally friendly process. Through our proprietary thermo-catalytic system and patented process, we can cost-effectively convert waste plastics, including hard-to-recycle materials such as grocery bags and film, into high-value waxes and other specialty chemicals. We sell specialty wax products, marketed under the Ceranovus™ brand name, for use in a broad range of applications in polymer processing, adhesives, coatings, roofing and paving, and other industries. The company is at the forefront of providing an environmentally positive alternative source for synthetic waxes, reducing reliance on traditional fossil fuels as a raw material. This helps advance progress toward the goal of a circular economy that responsibly reuses waste streams.

The Position

We are currently seeking an experienced **Process & Automation Control Engineer** at our Brantford Plant to execute the major elements of the site process engineering and provide automation expertise within a multi-disciplinary team of process engineers, external contractors and consultants. The process engineer will successfully deliver complex analyses and will execute improvement projects at our innovative specialty chemical process plant. This role will also be a key player in future expansion plant projects.

Process Engineering Responsibilities:

- Lead the design and implementation of incremental capital improvement projects (capacity, yield, cost, cycle times)
- Identify improvement opportunities and use Six Sigma and Lean Manufacturing techniques to achieve improvement
- Take corrective actions to address process deviations, find root cause and prevent future occurrence
- Review process metrics and data to reduce cycle times, maximize yields and reduce downtime
- Complete Plant Study Requests and Plant Change Requests filled in by Operations & maintenance
- Draft and implement standardized work instructions (WINs) as well as train operators in these new procedures
- Develop PSSR (Process start safety review) and troubleshoot new equipment during initial start-up
- Analyze process parameters to maximize quality and minimize labour and material costs
- Identify areas for capital expenditure improvements to optimize processes and present ideas with estimated capital and ROI details
- Support production with problem solving and support maintenance when equipment and/or process issues arise
- Maximize efficiency, output and safety of manufacturing processes through observations and measurements, as well as by collecting and interpreting data
- Act as a lead in identifying the gaps for reduction in existing process times, generate a task list and resolve issues

Automation & Control Responsibilities:

- Design and install instrumentation and control systems including process control, DCS, data systems and utility PLC's

- Develop new programs and logic when necessary to optimize existing processes targeting higher yields and to minimize downtime
- Develop and optimize operation and maintenance procedures for instrumentation and control systems
- Manage change control process for Automation/Process Control Equipment
- Maintain current inventory list of all Process Control Equipment (PCE)
- Troubleshoot and correct problems with instrumentation and control systems
- Ensure One line diagrams are up to date
- Provide technical support for existing instrumentation and automation systems
- Analyze repairs and maintenance requirements in order to proactively address system weaknesses
- Develop validation documentation and implement validation plans, instrumentation and control systems
- Develop training programs for instrumentation and control systems
- Manage vendors and consultants to ensure that contracts contain appropriate technical specifications and are delivered as required
- Stay current on developments in the field of instrumentation and control technology
- Interface with users, peers, and management to ensure appropriate input and integration of local and corporate standards
- Provide technical expertise during regulatory audits with the ESA/TSSA
- Author, review, revise, or approve Work Instructions (WINs) as required
- Assign and maintain documentation around I/O connections and interfaces
- Maintain necessary system back-ups and documentation
- Take lead in automation for existing processes for optimization and for enhanced process control
- Program, commission and troubleshoot experience with DeltaV/ABB PLC's and DCS's
- Prepare instrument and I/O lists and loop diagrams
- Interpret design input documentation such as P&I diagrams, Process Narratives and Logic Schematics
- Interpret and/or author narrative specifications including Control System requirements, Design Criteria and User Requirements
- Experience with some of the following: Visual Basic, SQL databases and data collection, SCADA packages such as WonderWare, process controls, setup and tuning of PID loop, industrial networks such as DeviceNet, ControlNet or Ethernet/IP
- Oversee and train Operating Engineers in the management of Process Control Alarms and Control System Functions
- Interact with Maintenance and Operations teams to support troubleshooting of failures indicated in Delta V
- Able to learn and understand current process executions and propose paths for automation (recipes) and then lead implementation and start-up
- Together with Process Engineers, review existing sequential programming routines and modify or improve for optimization of yield / cycle time or reduce nuisance interruptions / program stalling
- Able to prepare electrical schematics and panel layouts using AutoCAD and bills of material in Microsoft Excel
- Familiar with the Ontario electrical safety code.

Qualifications

- Four year relevant Engineering degree; Chemical or Electrical disciplines preferred
- P.Eng registered in the Province of Ontario
- Literacy in French (written & conversation) would be an asset
- 5-7 years direct experience in Chemical Plant Operations (broad based experience interacting with production, engineering and maintenance is preferred)
- Prior experience leading the design, programming, start-up, troubleshooting and validating of process control systems and instruments including SCADA and PLC systems

- Hands on experience for configuring I/O's in the control panel and on DCS, working knowledge of laying control wires from the device to the cabinet
- Knowledge and experience directly in the use of Emerson Delta V process control systems in a batch and/or continuous environment is preferred
- Solid handling experience is preferred
- Strong verbal and technical writing skills to interact with the Operations department to convey changes to the control system
- Must have strong analytical and root cause problem solving capabilities
- Must have effective communication skills and the ability to interact with internal staff and external vendors, coupled with strong engineering fundamentals and safety awareness
- Must have proven organizational and time management skills

Thank you for your consideration and application! We review all resumes and submissions, however, due to the sheer volume of requests that we receive, only successful candidates will be contacted.