

## Organizational Context

INEOS is a manufacturer of petrochemicals, specialty and intermediate chemicals and polymers. INEOS includes 68 manufacturing facilities in 14 countries throughout the world with approximately 15,600 employees. INEOS' annual turnover is around \$33bn making it the 3rd largest chemical company in the world. INEOS is a customer-focused company and our business mission is to be the supplier of choice to our customers.

INEOS Bio is an exciting new business that is commercializing a highly innovative technology platform for the production of clean biofuel and renewable power from a wide range of low-cost carbon materials including household waste. A demonstration-scale facility is currently under construction in Vero Beach, Florida at a cost of ~\$130 million. The project is called the "INEOS New Planet Bioenergy (INPB) Project" and is a JV between INEOS Bio and New Planet Energy. The plant will be operated by INEOS Bio.

The DCS/Process Controls Engineer will be a member of the Manufacturing Team at Vero Beach. Initially the individual will support the Project in the contractor's office as an Operations Representative specializing in the detailed design of the DCS/control aspects of the project. The ideal engineer would be experienced in process control, distributed control systems, and PLC's with a working knowledge of instrumentation and electrical systems. The detailed engineering design is being progressed by AMEC in Greenville, SC and the post holder would be required to be based Monday to Friday in Greenville until the end of July 2011.

This role will report to the Plant Services Manager at the Vero Beach site.

## Job Description

- To be the project and future operations Control engineer responsible to ensure the DCS/control systems meet the project requirements and future operational requirements.
- To be a member of the INPB Project Management Team representing Operations and support the development of the project in line with the project procedures and specifically the Project Execution Plan, the Project Quality Plan and the Project HSSE and Environmental Plans.
- To make safety the number one priority and to pro-actively demonstrate safe behaviors and demand safe behaviors from everybody associated with the Project.
- To ensure the DCS control and PLC logic is developed to support the project objectives and future operations
- Provides expertise to optimize control system functionality and personnel requirements for monitoring and control of plant operations
- Initiating change and finding long term solutions to ongoing operational, process and equipment problems.

- Guide longer term Controls Reliability

## **Responsibilities & Accountabilities**

### **RESPONSIBILITIES:**

- To provide owner coordination of all aspects associated with the plant DCS/control systems to ensure the as-built plant meets the business expectations.
- To manage the interface on DCS/PLC matters between the Operations Team and EPC Contractor(AMEC)
- Providing input on selection of equipment, review, and approval of specifications.
- Design input and review of EPC contractor and vendor packages for PLC systems control and the Process Control System and architecture.
- Understand company HSSE practices, policies and procedures, including the impact of DCS/controls equipment and operations as well as familiarity with Industry Standards.
- Participating in cross-functional teams to optimize plant designs for cost effectiveness, reliability, operability and maintainability.
- Participating in Process Hazard Analysis studies (PHA)
- Participating in testing and evaluation of process control hardware and software.
- Start-up support
- Maintaining ongoing awareness of new developments in hardware and software technologies.
- To support the commissioning activities for DCS/PLC's to ensure these systems are commissioned to schedule.
- To represent the INPB Project in a respectful and positive manner at all times.
- Develop and implement methods for extraction of process and equipment performance information into 3<sup>rd</sup> party database software for trending and reporting
- Work closely with operators to develop effective graphical user interfaces and control board layouts
- Drive Controls reliability programs for the site including purchasing specs, repair quality standards and reliability strategies
- Comply with process Safety Management and Process Hazard Analysis requirements
- Provide oversight for acceptance testing of hardware, and software for new DCS or PLC's installations
- Develops HMI(human machine interface) for PLC and DCS
- Utilizing Piping and Instrumentation Diagrams(P&ID's), sequence of operations and DCS/PLC programs to help train operators
- Provide selection and specification of new DCS/control systems equipment on maintenance and capital projects activities
- Oversee the field construction, verification of proper installation, performing loop checks and the oversight of final commissioning of DCS/PLC equipment associated with maintenance or capital projects
- Support:
  - development and implementation of reliability strategies for critical plant electrical equipment using Reliability Centered Maintenance (RCM) and

- standards for preventative/predictive maintenance (PM/PdM)
- development and implementation of PM programs for general purpose equipment
- development of risk assessments and long-term plans for critical equipment
- root cause failure analysis (RCFA) on equipment failures and help recommend corrective actions on controls, instrumentation and electrical equipment that has failed
- maintenance turnarounds and capital projects

## Skills & Knowledge Required

### REQUIREMENTS:

- Previous Operations experience in petrochemicals, biofuels or power industries.
- Strong safety and environmental performance
- Experienced in the PLC/DCS/SIS architecture & configuration
- Strong ability to work with others.
- Strong communication, writing and networking skills.
- An ability to manage work priorities to deliver real performance improvements in a busy and demanding work environment.
- Strong knowledge of safety and the pro-active application of new techniques to improve safety performance.
- Ability to set priorities based on business needs and strategy.
- Strong bias for action to identify potential problems and coordinate their resolution before they become an issue. Continual enthusiasm and a desire to assist the team improve performance.
- Strong engineering skills with knowledge of DCS & PLC controls as well as some understanding of instrumentation and electrical equipment.
- Knowledge of various electrical Codes (e.g. NEC and ANSI / IEEE) and industry instrumentation standards as applied to petrochemical facilities is preferred.
- Working with I&E designers, Process Safety Management (PSM), and Management of Change process.
- Experience with process control hardware, software, and associated computer system and infrastructure.
- Complete understanding of the engineering documents associated with instrumentation such as: P&IDs, loop sheets, specification sheets, wiring diagrams, ladder logic, logic diagrams, installation detail drawings, etc.
- Complete understanding of field construction, sequence of events, how to track progress, how to verify proper installation, and control loop checking
- Understanding of field instrumentation and associated technologies
- Ability to extract process and equipment performance information into 3<sup>rd</sup> party database software for trending and reporting
- Complete understanding of interlocking shutdown systems and permissive start-up systems
- Extensive experience with PLCs and programming is required

- Project engineering or and experience leading projects is a plus
- Strong written, verbal, and interpersonal skills are essential to perform this role.
- Ability to travel to various engineering contractors' offices and project sites

The following instrumentation and electrical competencies would be considered a plus:

- Some knowledge and experience of high and medium voltage system.
- Sizing and selection of instruments and control valves
- Design and implementation of Safety Instrumented Systems (SIS)

Education and Experience: The successful candidate should have a minimum of a BS degree in Electrical Engineering, Control Engineering or Process Engineering or related subject and at least 5 years of related experience in DCS control systems. Experience with the technical design and support of ethanol or petro-chemical projects is preferred. Extensive knowledge of distributed control systems and programmable logic controllers is required. Experience with electrical power systems and instrumentation in chemical plants is a plus.

The preferred candidate will have held a similar position that interfaced with staff engineers, engineering contractors, craftsmen, operators, vendor engineers, and sales representatives in a manufacturing environment.

#### **How to Apply / Additional Information**

***Please submit your resume to [biocareers@ineos.com](mailto:biocareers@ineos.com) and mention the job you are applying for in subject line.***