Selas Fluid
Job Specification

Job Title:	Instrumentation & Controls Engineer
Reports to:	Chief Instrumentation & Controls Engineer
Last Updated:	November 2009

Position Summary
The I & C Engineer researches, plans and designs instrumentation and controls components and Burner Management Systems and coordinates activities involved in the design, fabrication, installation and repair of I&C components.

Key Areas of Responsibility
• Participates in the development of P&ID's
• Generates Combustion control strategy and Burner Management Systems for oxidation and furnace systems.
• Generates instrumentation data sheets, wiring diagrams, sequence of operations, flow charts, control panel design, control logic diagrams, loop diagrams, installation details and safety PLC control software.
• Specifies instrumentation including but not limited to control valves, Regulators, gauges, Thermocouples, flowmeters (coriolis, vortex, annubars, magnetic flowmeters), Flame monitoring instrumentation, oxygen and combustible analyzers among others.
• Coordinates the overall instrumentation and control design, recognizing the requirements of other disciplines such as process and mechanical engineering.
• Performs other responsibilities associated with this position such as participation in HAZOP, client meetings, visiting job locations, performing FAT and SAT at shops and client sites requiring domestic and international travel.

Required Skills
• Knowledge of combustion equipment, materials and other physical sciences to complete electrical/instrumentation/piping and installation detail drawings.
• Training in SmartPlant P&ID and working knowledge of the InTools software
• Working knowledge of instrument sizing software programs (Intools, Flowserve, Firstview)
• Proficient in computer skills; Microsoft Office, Lotus Notes,
• Effective communication skills both written and verbal
• Effective analytical and problem-solving skills, and the ability to handle multiple project responsibilities. Working with vendors, field personnel, fabricators, system integrators and programmers.
• Knowledge of 2D and 3D CAD applications
• Working knowledge of respective Industry Codes/Standards including ISA standards, NFPA (engineering practices NFPA 85/86, NEC and OSHA)

• Travel both domestic and international is required
• Working knowledge of chemistry, ratio/control and control/burner operations

Education/Experience
• Bachelor's Degree in Electrical or Mechanical Engineering
• Minimum of 5 years related working experience