Darryl A. Stahlke, P. ENG.

Instrumentation and Automation Engineer

Education

B Eng, Computing and Electrical Engineering, McMaster University, 2003

Licenses/Registrations

Professional Engineer, Ontario, #100148730, Issued 02/15/2011, Exp. 02/15/2015

Years of Experience

With AECOM: 6

With Other Firms: 7

Professional Associations

Ontario Society of Professional Engineers, Member, 2011

American Water Works Association, Member, 2013

Training and Certifications

Workplace Hazardous Materials Information System (WHMIS)

Basics of Fall Protection

Hearing Safety Awareness

4-hour Field Safety

Fire Extinguisher Training

SH&E Orientation

SH&E Field Orientation

Proficy HMI/SCADA iFIX Fundamentals

Mr. Stahlke is an engineer in the Instrumentation and Automation group in the Hamilton office. He has 6 years of experience in electrical, instrumentation, and automation (EI&A) engineering as well as five years of experience in design of industrial electronics. Mr. Stahlke has been responsible for projects including proposals, design specifications, management, and implementation. His duties have included quality assurance and quality control, cost control, instrumentation and automation engineering, human machine interface (HMI) and supervisory control and data acquisition (SCADA) development, and programmable logic controller (PLC) programming.

Project Experience

Water Treatment

City of Flin Flon, Flin Flon Water Treatment Plant, Flin Flon, Manitoba. Responsible for PLC and HMI software commissioning and warranty support. Remote communication (via internet) system integration and commissioning. Technology employed: [Time Frame] RS Logix 5000, Wonderware System Platform, and RSLinx. [01/01/2014-12/31/2014]

Lambton Area Water Supply System, Lambton Area Water Supply System New Polymer Delivery System, Lambton, Ontario. Instrumentation and automation engineer for the polymer delivery system. Developed instrumentation and controls specifications, control wiring drawings, I/O list, and P&ID and SCADA/PLC network design. Technology employed: [Time Frame] and AutoCAD 2013. [04/01/2014-12/31/2014]

Region of Peel, Airport Road Contract 2 Surge System Controls Upgrade, Brampton, Ontario. Lead PLC and HMI programmer; designed PLC and HMI software to meet Region of Peel design standards (PAIDS) and follow the process control narrative. Technical lead of transition plan for surge system control upgrade process. Representative for electrical panel factory and site acceptance testing (FAT & SAT) and system commissioning. Technology employed: [Time Frame] RS Logix 5000, Invensys Wonderware, RSLinx, and PICS Pro. [10/01/2013-09/30/2014]

Region of Peel, Streetsville Reservoir and Pumping Station, Mississauga, Ontario. Instrumentation and automation engineer and sole PLC/HMI programmer. Reviewed vendor shop drawing submittals to ensure contract and region standards were met. Programmed and commissioned the PLC and HMI software to meet Region of Peel design standards (PAIDS) and follow the process control narrative. Technology employed: [Time Frame] RS Logix 5000, Invensys Wonderware, RSLinx, and PICS Pro. [10/01/2012-07/31/2014]

Region of Peel, Tullamore Reservoir and Pumping Station, Brampton, Ontario. Sole PLC and HMI programmer; designed the PLC and HMI software to meet Region of Peel design standards (PAIDS) and follow the process control narrative. Reviewed vendor shop drawing submittals to ensure contract and client standards were met. Designed diesel fuel pump electrical controls as per TSSA standards. Technology employed: [Time Frame] RS Logix 5000, Invensys Wonderware, RSLinx, and PICS Pro. [01/01/2010-07/31/2014]

Region of Peel, Airport Road Reservoir and Pumping Station, Brampton, Ontario. Sole PLC and HMI programmer; designed PLC and HMI software to meet Region of Peel design standards (PAIDS) and follow the process control narrative. Reverse engineered existing Bristol Babcock ControlWave code of two existing RPUs to ensure the PCN matched existing station control logic. Developed PLC simulation code and simulation HMI screens to test pumping station PLC code. Programmed ModbusTCP/IP communications into two ControlWave RPUs to achieve communication with Allen-Bradley ControlLogix PLCs. Station operation was maintained throughout process of transferring I/O points from ControlWave RPU to ControlLogix PLC by running ControlWave and ControlLogix systems in parallel. Representative for electrical panel site acceptance testing (SAT) and system commissioning. Technology employed: [Time Frame] RS Logix 5000, ControlWave Designer, Invensys Wonderware, ProSoft Config Builder, RSLinx, OpenBSI, and PICS Pro. [01/01/2010-12/31/2012]

Region of Peel, Beckett Sproule Reservoir and Pumping Station, Brampton, Ontario. Lead PLC and HMI programmer; designed the PLC and HMI software to meet Region of Peel design standards (PAIDS) and follow the process control narrative. Developed PLC simulation code and simulation HMI screens to test pumping station PLC code. Liaised between contractor/subcontractors and client. Representative for electrical panel site acceptance testing (SAT) and system commissioning. Bristol Babcock programming of two existing station C3330 RPUs to communicate over Modbus TCP/IP with Allen-Bradley ControlLogix PLC. Technology employed: [Time Frame] RS Logix 5000, ACCOL Workbench, Invensys Wonderware, PICS Pro, Prosoft Configuration Builder, RSLinx, NetView, OpenBSI, and Modbus. [01/01/2010-12/31/2011]

Halton Region, Burloak Water Purification Plant Generator Controls, Oakville, Ontario. PLC and HMI programmer; designed PLC and HMI software to meet Halton Region standards. Coordinated with the region supervisory control and data acquisition (SCADA) integrators to ensure upgrades were completed without interruption to the functioning purification plant. Performed online PLC changes to communicate with generator system supplier's PLC. Worked in conjunction with generator vendor programmer to complete system functionality as requested by region staff. Developed custom HMI screens/pop-ups to represent generator panel mounted display within plant HMI. Technology employed: [Time Frame] RS Logix 5000, and Invensys Wonderware. [01/01/2010-12/31/2010]

Wastewater Treatment

Town of Penetanguishene, Penetanguishene Water Pollution Control Plant, Penetanguishene, Ontario. Representative for Instrumentation & Controls panel factory acceptance test (FAT). Reviewed vendor shop drawing submittals, contract drawings, and specifications to ensure contractual obligations were met. [04/01/2014-12/31/2014]

City of Brantford, Brantford Water Pollution Control Plant Aeration System Upgrades, Brantford, Ontario. Instrumentation and automation engineer; developed cost estimates, instrumentation and controls specifications, control wiring drawings, I/O list, and P&ID and SCADA/PLC network design. [03/01/2014-12/31/2014]

Municipality of Central Elgin, Talbot Line Sanitary Pumping Station, St. Thomas, Ontario. Representative for Instrumentation & Controls panel factory acceptance test (FAT). Reviewed vendor shop drawing submittals, contract drawings, and specifications to ensure contractual obligations were met. [04/01/2014-08/31/2014]

Region of Peel, Battleford Road Booster Pumping Station, Mississauga, Ontario. Sole PLC and HMI programmer; designed Allen-Bradley ControlLogix PLC code and HMI software to meet Region of Peel design standards (PAIDS) and follow the process engineer's process control narrative. Developed PLC simulation code and simulation HMI screens for testing pumping station PLC code. Liaised between contractor/subcontractors and client. Representative for electrical panel factory acceptance testing (FAT) and system commissioning. Technology employed: [Time Frame] RS Logix 5000, Invensys Wonderware, RSLinx, and PICS Pro. [01/01/2009-12/31/2011]

Region of Peel, Lorne Park Water Treatment Plant Expansion, Mississauga, Ontario. Lead human machine interface programming engineer; HMI software designed to meet Region of Peel design standards (PAIDS). Representative for design standard review of ultraviolet and filtration system compliance. Technology employed: [Time Frame] Invensys Wonderware. [01/01/2009-12/31/2011]

Halton Region, Oakville Southeast Wastewater Treatment Plant Ultraviolet Disinfection Facility, Oakville, Ontario. Lead Wonderware human machine interface (HMI) programmer; coordinated with the Halton Region SCADA integrators to ensure upgrades were completed without interruption to the functioning wastewater treatment plant. Online Allen-Bradley ControlLogix PLC changes performed to communicate with ultraviolet system supplier's PLC, and calculate the UV system flow and UV dialer callout routines. PLC and HMI software implemented according to client specific standards. Technology employed: [Time Frame] RSLogix 5000, Invensys Wonderware, and DAServers. [01/01/2010-12/31/2011]

Region of Peel, Jack Darling Sewage Pumping Station Upgrade, Mississauga, Ontario. Lead PLC programmer and sole HMI programmer; implemented Allen-Bradley ControlLogix PLC code and Wonderware HMI software to meet Region of Peel design standards (PAIDS). Logic created with PICS Pro to simulate station operation for testing purposes. Technology employed: [Time Frame] Invensys Wonderware, RSLogix 5000, RSEmulate 5000, RSLinx, and PICS Pro. [01/01/2009-12/31/2010]

Region of Peel, Clarkson Wastewater Treatment Plant Expansion, Mississauga, Ontario. Secondary supervisory control and data acquisition (SCADA) programming engineer; updated existing HMI application to resolve project deficiencies. Reworked all descriptions within the application alarm database. Performed online logic edits to ten plant Allen-Bradley ControlLogix PLCs during live plant operation. Technology employed: [Time Frame] Invensys Wonderware and RSLogix 5000. [01/01/2009-12/31/2009]

Region of Peel, McVean Sewage Pumping Station, Brampton, Ontario. Primary human machine interface programming engineer; developed a HMI application for an existing and operational pumping station to meet Region of Peel design standards (PAIDS). Reworked screens, alarm database, and I/O tagging to be compliant with client specific standards (PAIDS). Technology employed: [Time Frame] Invensys Wonderware. [01/01/2009-12/31/2009]

City of Sault Ste. Marie, West End Wastewater Treatment Plant Wide Area Network Integration, Sault Ste. Marie, Ontario. Secondary PLC programmer; developed initial PLC logic programs, including all I/O, device drivers, and tagname structure/setup for controls at the West End wastewater treatment plant and remote pumping stations (Young Street and River Road). Technology employed: [Time Frame] RSLogix 5000. [01/01/2009-12/31/2009]

Emissions System Automation (Steel Industry)

Essar Steel Algoma Inc., Blast Furnace Number 7 Emissions Control System, Sault Ste. Marie, Ontario. Primary human machine interface programming engineer; ensured client standards were met in development of HMI application. Developed HMI software to the customer's specifications. Conducted factory acceptance tests of HMI. Assisted in PLC modbus function block programming and communications setup to remote I/O. Provided on-site commissioning and operator/maintenance training services. Technology employed: [Time Frame] Intouch Wonderware, Unity Pro, and Modbus. [01/01/2008-12/31/2009]

Publications and Presentations

“Continuous Water Supply Maintained During a Complete Control System Upgrade of a 680 ML/d Pump Station,” presented at the OWWA/OMWA Joint Annual Conference in 2013.