

Mike Zyph

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Expertise

Mr. Zyph is an instrumentation and controls specialist, with significant experience and expertise in in automation systems design for pipeline pump stations, terminal automation for Truck and Rail car loading/offloading, SCADA monitoring and control systems, and PLC control applications with emphasis on installation practices for reliable operation. His expertise includes overall electrical design (control panels, power distribution, conduit-wire and cable schedules and point to point schedules and diagrams), instrumentation selection, installation and operation, the design and installation of pipeline safety systems, P&ID and One Line Diagrams development, cause and effect design, control philosophy development and start-up procedures, FAT testing, and E&I construction, checkout and commissioning. Mr. Zyph has both domestic and international experience.

Education / Military

Associates of Applied Science – Master Electronics Technician Business Administration, Spokane Community College, Spokane, Washington

1975

U.S. Navy - Aviation Electrician (E5), Plane Captain, Aviation Intermediate Maintenance Division

1969 – 1972

Responsible for aircraft electrical systems including autopilot, navigation, generator, armament and fuel quantity systems. Duties included safety for the aircraft and crew. Letter of commendation 6/1/70.

Professional Experience

Electrical & Instrumentation Specialist, Vanderpool Pipeline Engineers Inc.

2008 -Present

- Reviewed, advised and assisted with electrical and instrument design, installation, checkout and commissioning of 9 pipeline pump stations, 7 terminals, and 7 off-loading
 facilities, including installation of Schneider/Sq-D MV soft start starters ranging from 900
 to 1500 HP. Assisted with installation of Allen Bradley PLC used for SCADA and station
 control, installed multiple capacitor start control packages to assist with Utility demands,
 and assisted with the installation and commissioning of OMNI flow computers at some
 facilities.
- Provided technical support for delivery pipeline modifications at North Dakota Terminal into Hybrid Allen Bradley PLC system. Assisted with start-up and commissioning.
- Assisted client with E&I design of custody transfer metering stations at a bulk storage
 facility, metering crude volumes into and out of tankage. Performed PLC control package
 and SCADA interfacing, consisting of transfer pump control scheme, sample systems,
 safety shutdown controls, generation of reports, data logs, and custody transfer ticket
 generation. Work included checkout and commissioning of LACT units.
- Advised and assisted with the electrical design support and installation of a new pipeline booster station and a LACT transfer metering facility on a North Dakota crude gathering system. Assisted with checkout and commissioning.
- Reviewed, advised and provided technical support on a product truck loading facility upgrade project in Moses Lake, Washington. Assisted with checkout and commissioning of Accuload III installation and configuration, PLC modifications, meter transmitter conversions, driver interface -HMI, and additive injection systems modifications.
- Reviewed and advised on new product truck loading facility in Helena, Montana.
 Consisted of adding and modifying existing Allen Bradley PLC network, Accuload III control scheme for product blending and additive injection. Also included PLC modifications to product flare controls and monitoring.
- Reviewed and advised on new product truck loading facility in Sheridan, Wyoming.
 Consisted of adding and modifying existing Allen Bradley PLC, converting to Accuload III control scheme for product blending and additive injection.

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- Oversaw removal and installation of new Allen Bradley soft start MV (medium voltage) lineup in Tulsa Oklahoma, including installation and control schemes for new Allen Bradley Control Logix PLC's for mainline pump control. The conversion required setup and configuration of new Multilin 469 programmable motor protection relays. Assisted with all phases of set-up, checkout and commissioning.
- Managed installation of remote automated block valve stations in northern Montana and Idaho panhandle. Assisted with checkout and commissioning of PLC, MOV, Pig-Sig, temperature/pressure transmitters, satellite dish and modem.
- Assisted with electrical / SCADA control system design of new natural gas gathering system, associated pipeline and natural gas processing plant. Involved in development of P&ID drawings for all phases of the project. Marked up electrical drawings and completed electrical as-built drawing package. Advised and assisted with checkout, testing and commissioning of the plant and gathering system.
- Coordinated work with equipment manufacturers to develop control interfaces with clients' local and remote control systems.
- Assisted in E&I construction and overall commissioning plan. The resulting startup plan allowed the commissioning of all eight pump stations within 7 months from start of construction to commissioning of last station, across a 550 mile long system.
- Reprogrammed and upgraded system to an automated petroleum product truck loading terminal in Sheridan, Wyoming.

Electrical & Instrumentation Inspector, Margham Dubai Establishment

2006 - 2007

- Acted as Dubai Supply Authority's E&I construction inspector to oversee all phases of
 electrical and instrumentation installations for complete gas control station including
 redundant / parallel Data Control Systems, redundant UPS systems, backup generator
 packages, instrument air systems, and communication networks.
- Reviewed engineering documentation and made necessary modifications as required for field installation.
- Prepared contractor work instructions and station systems commissioning plans.

Technical Consultant, C-Plex Associates

2001 – 2006

- Provided technical assistance on low voltage electrical systems, 64 kilo-volt gear, and electrical and electronic control system installations for various pipeline and oil refinery projects.
- Supervised refinery main electrical contractors on all new capital projects including advising for project scope, manpower loading, and cost control measures.
- Assisted with various process control systems trouble shooting and commissioning activities.

Technical Consultant, Lloyds Register

2000 - 2001

 Provided technical electrical and electronic installation support for various pipeline and petroleum industry projects. These projects included process control equipment installations, SCADA and PLC installations, assistance with electrical and instrumentation design, site inspection, troubleshooting and commissioning, modifications to existing control schemes, and new installations.

Systems Supervisor, Conoco Pipeline Co.

1975 – 1993

Responsible for electrical automation installations throughout the continental US. These
duties included: maintenance, troubleshooting, design, documentation, construction,
cost records, and installation of electrical / electronic systems for pipeline pump stations
and tanker truck loading facilities.

Licensing, Certifications and Specialized Training

- 30+ Years of Military and Company sponsored training in Safety, Environmental, Regulatory, and multiple other training topics.
- Flow Computer application, installation, programming and configuration.
- · LACT electrical and instrumentation design, interface and integration, checkout and commissioning.
- Hazard and alarm system integration such as: gas detection, fire detection, alarm beacons and strobes, audible alarms systems.

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