

CURRICULUM VITAE EDWARD L. BURGHARDT

Experience Summary

21 years as an Electrical Engineer concentrating in instrumentation and control
5 years as an aircraft mechanic concentrating on helicopters
International project engineering, design, and construction experience
Involved in 3 major industrial fire recovery and rebuilds
Core team member on 6+ projects each with budgets exceeding \$200 million
Project manager on 5+ projects with budgets exceeding \$100 thousand

Career Summary

1987 to Present with Chevron Corporation as an Electrical Engineer
1981 to 1985 as Helicopter Aircraft Mechanic, Anchorage Alaska

Educational Summary

1988 Bachelor of Science Electrical Engineering, Oregon State University
1980 Associate of Science in Aircraft Maintenance, Lane Community College, OR

Skills Summary

High proficiency in:

- Continuous Process Measurement Technology, Pressure, Temperature, Levels, Flow.
- Process Control and Monitoring Systems, DCS and SCADA
- Logic design in multiple platforms, including hardwired and PLC
- System Integration, troubleshooting, and solutions design

Supervisory experience with personnel career development in a technical environment

Developing, writing, and reviewing corporate wide specifications and guidelines

Project management, cost, schedule, and scope control and management

Mechanic with hands-on experience in aircraft and auto maintenance

Licenses

California PE in Electrical Engineering, February 14, 1992, Certificate No.E 13846

FAA Airframe & Power plant Mechanics License, May 19, 1980, License No. 543820894

Formal Training Summary (recent)

- Safety Instrumented System statistical analysis and design ISA S84 (2008, 80 hours)
- SEL high voltage electrical protection relay engineering (2007, 40 hours)
- Capital Stewardship Organizational Capability for large projects (2006, 40 hours)
- Honeywell TDC DCS system configuration and programming
- Honeywell Fail Safe Control system configuration and programming

Significant Career Achievements.

Successful engineer, design, and implementation of the worlds only 35,000 horse power FCC

Main Air Blower Expander Train that continues to run after a 12KV electrical breaker trip.

Successfully engineered, designed, and implemented a "one button" startup of an 800,000 lb/hr gas fired steam boiler unit.

Details of Work Experience (previous 10 years)

- April 2007 to present -- Instrumentation subject matter expert and company representative on large projects budgeted at \$1.2 Billion. Responsibilities are day to day consulting and review of contractor engineering and designs of instrumentation and controls. Member of a corporate wide team that reviews and comments on Chevron engineering specifications and engineering guidelines.
- January 2007 to March 2007 -- Fire damaged rebuild of Crude unit.
Develop and implement solution for replacing, repairing, and testing damaged instrumentation and control. 5000+ field measurement restored in eight weeks.
- September 2004 to December 2006 -- Refinery Electrical Engineer and Lead of plant support engineering group responsible for electrical and instrumentation needs for the entire refinery. 12 direct reporting employees.
- January 2004 to August 2004 -- Project Manager responsible for scope, schedule, and cost control of capital project work.
- November 2002 to December 2003 -- Lead of the instrument/analyzer engineers and analysts portion of the Chevron Honeywell Automation Management Program's (CHAMP) Services division inside the Richmond refinery. Responsibilities were engineering and design of all the field installed instrumentation devices for refinery. 20+ direct reporting employees.
- January 2000 to October 2002 -- Hot Cut Over of 30,000+ instrumentation and control devices, entailed moving devices one at a time from an older distributive control system to a new system while the processing plant continued to operate without adversely affecting the plant.
- April 1999 to December 1999 -- Fire damaged rebuild of Hydrocracker unit. Assisted in the development and implementation to replace, repair, and test the fire damaged instrumentation and control. Engineered and designed a local control panel for a 4,000 horse power steam driven high pressure hydrogen compressor.

General Work Experience (Engineering only)

- 2000 January to Present Chevron USA. Products Inc. Richmond, CA Refinery,
CHAMP refinery wide re-instrumentation project, responsible for RLOP and SRU plant. 2000 to 2002
Instrument and Electrical engineering designs team leader.
(approximately 10 direct reports) 2002 to 2006
Subject Matter Expert for Major Capital Projects. 2007 to present
- 1996 March to 1999 December Chevron Research and Technology Company.
Richmond, CA Instrumentation Team Member. Design controls for process licensing packages. Corporate wide support on instrumentation. Represent Chevron's interest's on industry standards committees.
- 1992 December to 1996 February Chevron USA. Products Inc. Richmond, CA Refinery.
Project Designs Representative, Instrumentation and controls representative at the engineering contract's designs office. Included extensive travel to the designs office and factory acceptance tests.
- 1988 July to 1992 November Chevron USA. Inc. Richmond, CA Refinery.
Control Systems Engineer, Instrumentation on varied levels of complexity from single loop control to large Taylor Mod III DCS control.
- 1987 June to Chevron Pipe Line Company. Salt Lake City, UT

September Summer Engineer. Worked with the Supervisory Control and Data Acquisition on real time computers.