PSV Engineering School
3 - 4 December 2018

Participants will gain knowledge regarding all aspects of pressure relief valves including construction, operational principles and code requirements. The course also includes relief valve sizing calculation exercises and a demonstration of pressure safety relief valve function testing. Recommended for all process design and mechanical engineers handling pressure safety relief valves routinely.

Pre-Requisite: Trade and/or engineering background
Location: 33-35 Apollo Drive, Hallam
Cost: $1200 per person (excl GST)

- Western Process Controls (WPC) is an Australian owned and operated company established in 1987 as the exclusive Fisher Controls representative. Today WPC has multiple office locations and represents FlowControls and Pressure Management Business units of Emerson Automation Solutions. WPC also represents a range of other premier international industrial process control manufacturers to provide valve solutions for any application.

- WPC provides control, automated and pressure safety relief valves to many organisations within the metropolitan, country areas and offshore sites in Victoria, Tasmania and Western Australia.

- Our workshop has NATA laboratory and hydro testing accreditation and is a Fisher Authorized Repair facility.

- WPC provides training for pressure relief devices designed to re-close and prevent further flow of fluid after normal operation conditions have been restored.

- WPC provides training which is ideal for technicians and engineers involved with the commissioning, operation or maintenance of plants utilizing the latest technology.

- WPC specialises in valve automation and Fieldvue solutions.

- WPC is dedicated to providing its customers with quality products and services on time and to their requirements.

- WPC provides an in-depth insight into maintenance, sizing and selection of pressure relief devices.

- Quality System is designed in accordance with Standard AS/NZS/ ISO9001; ISO/IEC.

Certified System Health & Safety OHSAS 18001 SAI GLOBAL
Certified System Quality ISO 9001 SAI GLOBAL
Certified System Environment ISO 14001 SAI GLOBAL
NATA WORLD RECOGNISED ACCREDITATION
FISHER AUTHORIZED SERVICE
24 7 Control Valve Support and Service FISHER

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Day 1

Overpressure Protection and Terminology of Pressure Relief Devices
A discussion on why overpressure protection is essential at every plant operation, and potential catastrophic incidents without an adequate overpressure protection in place. An introduction to types of overpressure relief devices, terminologies of pressure relief valves and various relief scenarios. References to codes and standards including ASME, API and NB.

Code Requirements and Standards – ASME VIII Code
An overview of ASME Section VIII and how the compliance is ensured. Explains how capacity is certified for a relief valve. Concepts of overpressure and allowable accumulation per relief scenario and staggered set points for multi-valve set up. Installation and testing of pressure relief valves in compliance with ASME VIII.

PRV Fundamentals, Part 1
An overview on conventional, bellows relief valves and their performance characteristics. A discussion on types of backpressure and how each backpressure type affects operation of pressure relief valves. Possible operational issues and failure modes of pressure relief valves due to incorrect selection or installation.

Lunch

PRV Fundamentals, Part 2
An overview of pilot operated pressure relief valves and their performance characteristics. Advantage of using pilot operated relief valves over conventional or bellows relief valves. Available auxiliary options and configurations to suit special applications.

Introduction to Relief Valve Sizing, Part 1
Participants will practice sizing calculation using PRV2SIZE software, for gas and liquid applications based on sample datasheets.

Day 2

Introduction to Relief Valve Sizing, Part 2
Participants will practice sizing calculation using PRV2SIZE software, for special applications such as 2 phase sizing.

Function Testing Demo
A demonstration of relief valve function testing by WPC relief valve technicians, consisting set point test, seat leakage test, backpressure test and measurement of blowdown.

Special Features and Construction for Optimized Pressure Safety Design
An introduction to special features and construction such as restricted lift option, forged block body for spring operated pressure relief valve, and Iso-dome configuration in pilot operated pressure safety valve. Application examples where these features are beneficial.

Lunch

Pressure Relief Device Monitoring with Pervasive Sensing
An advantage of pressure relief device monitoring and how monitoring could result in positive business impacts. An introduction to pervasive sensing technology which enables pressure relief device monitoring without upsetting the process.

Tank Type and Venting Standards
An overview of atmospheric and low pressure storage tanks and why pressure management is essential. Introduces codes and standards for storage tanks. Scenarios of in-breathing and out-breathing and criteria for calculating venting requirement.

Tank Top Basics
An introduction to tank pressure control equipment and their operating principles. Explains layers of tank pressure control and application examples. An overview of flame arresters and type of flame arresters to be considered depending on applications.

Reserve your seat now! training@wpc.com.au