# PRESSURE RELIEF:

## Protecting Equipment and Personnel from Over Pressure

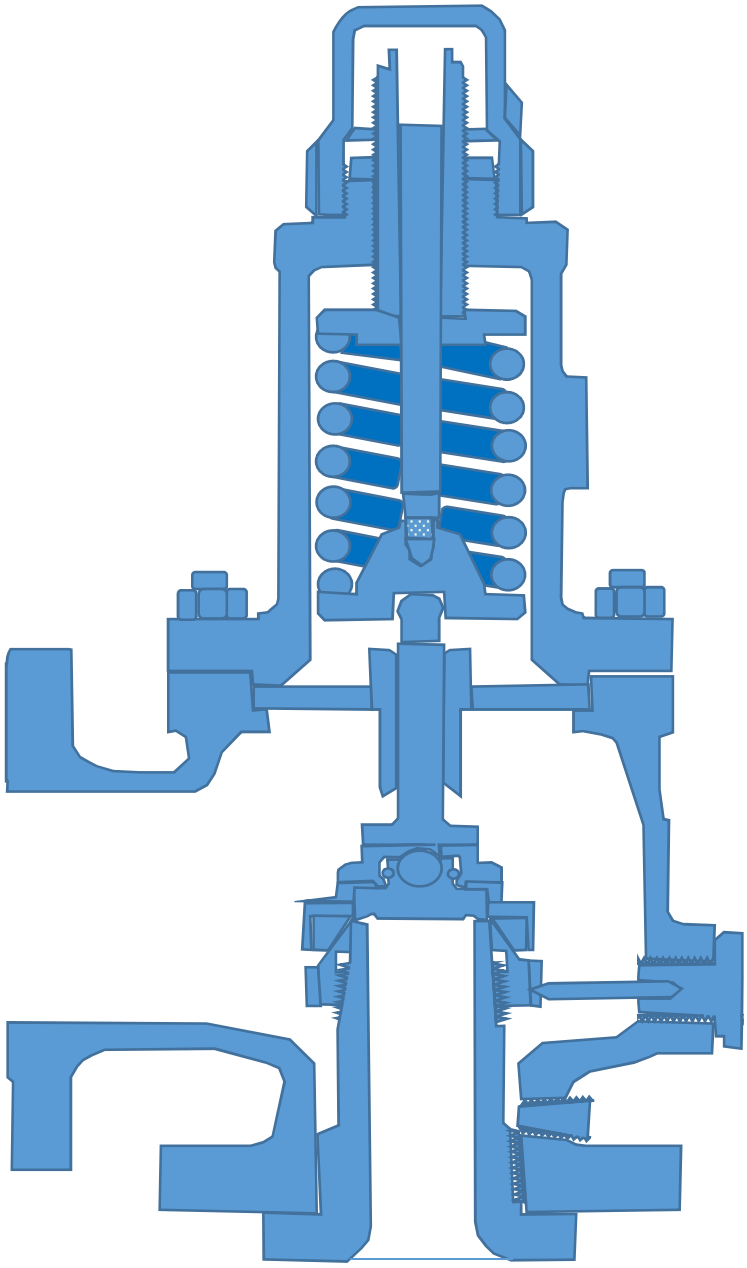
13th – 15th June 2017

Tuesday - Thursday

Perth, Australia

2017 ACCREDITED Training course

IChemE



# **PRESSURE RELIEF:** Protecting Equipment and Personnel from Over Pressure

## Overview

Pressure relief is abundant as a safety system in process related industries, the reason being that companies have a legal requirement to protect against over pressure with a mechanical devices. This legal requirement has been created due to major process incidents that have resulted in serious injury or fatality. It is almost a certainty that a chemical/mechanical engineer will have interactions with these systems and generally they own these assets on the operating plant or they design them in the design consultancies. Therefore an understanding for how they operate, their design basis, how to size and select, prepares you to ensure either safe operation of the operating plant or a safe design.

This course puts all of the knowledge you need into one comprehensive course, also gives the participants the activity to size and select a valve themselves. At the end of the course, the participant will have a basis on why we have these systems, how to design them and how they should be applied.

## Course Outline

### Day 1:

- Introduction
- What is over pressure?
- What is the safety function pressure relief?
- Understanding the design basis
- Defining the boundary for a pressure relieving system
- Calculating the relief rate

### Day 2:

- Safe sizing and selecting of protective devices
  - Pressure relief valve
  - Bursting discs
  - Pilot operated valves
- Understanding upstream and downstream pressure and the design constraints
- Safe and successful transport, installation and inspection

### Day 3:

- Protecting low pressure storage tanks
- Safe atmospheric discharge
- The dangers of reaction hazards and two phase flow
- Interactions with flare systems

## Who Will Benefit?

The following people will benefit from this training:

- Graduate chemical engineers who have entered the work force.
- Engineers who are required to undertake or check pressure relief calculations.
- Managers who are responsible for the plant and personnel.
- Engineers who are responsible for checking and approving relief valve sizing, and want to refresh on the standards and methodology.

## Course Presenter – Brett Mahar

Brett is the founder and Principle Process Engineer at ***Process Safety Verification***, a process engineering consultancy specialising in over pressure protection. Having experience with pressure systems as both designer and production manager, he appreciates the challenges from both sides, and believes the best way to close this gap is through training. Brett's main focus has been the design, installation and validation of over pressure protective systems in

oil and gas, chemicals industry, pharmaceutical and food and beverage industries.

Brett is a board member for the Australian IChemE, sits on the Victorian committee and is a member of the Australian Safety and Loss Prevention Group.

***"Very good and step by step guide"***

*"Was excellent to run through group exercise on this. Very helpful"*

***"Typically we specify vent conditions and the supplier provides valves. Good to know how to check selection, good to know how the valve lifts and re-seats."***

Testimonials from Nufarm, Australia (2015)

**Venue**

CBD, Perth

**Fees**

IChemE Member: $2,875 (GST inc)
Non Member: $3,375 (GST inc)

**Discounts**

Discounts are available to companies booking more than one place.

2 places – **5%** discount
3 places – **10%** discount
4 or more places – **15%** discount

*Multiple places must be booked at the same time to qualify.*

**How to book**

Complete the attached registration form and return it via e-mail to:
**bmahar@processsafetyverification.com.au**

**More details**

Visit: **www.processsafetyverification.com.au/icheme**
Telephone: **+61 (0)481 161 861**
Email: **bmahar@processsafetyverification.com.au**

**Accommodation**

Accommodation is not included in the delegate fee.

# Registration form

## PRESSURE RELIEF: Protecting Equipment & Personnel from Over Pressure

Tuesday 13th June – Thursday 15th June 2017, Perth, Australia
Please complete the form and email to **bmahar@processsafetyverification.com.au**

I wish to book a place on *PRESSURE RELIEF: Protecting Equipment & Personnel from Over Pressure*, Tuesday 13th June – Thursday 15th June 2017, Perth, Australia
I am a member of the IChemE: ☐ Yes ☐ No

Last name: ……
First name: ……..
Title (Dr/Mr/Miss/Mrs/Ms): ……..
Company Name: ……
Company VAT no: ……..
Work Telephone: ……..
Email:……
Job title: …… Department: ……..
Country: …… Post/Zip code: ……..
Address: ……
……
Direct Telephone: ……
Special Dietary Requirements: ……

**Method of payment:** (payment must be received in full before event date otherwise admission cannot be guaranteed)
Amount to be paid: £ ……..

☐ **Option 1: Invoice**

Please invoice my company quoting purchase order number/reference: ……
If possible please send a copy of your purchase order with the registration form. Otherwise please confirm invoicing details.
Attention invoice to: ……

Invoice address: ……..
**Note: a registration cannot be processed unless a copy of your purchase order is received with your registration form. Your booking will be confirmed by Process Safety Verification on receipt of either: an official purchase order or cleared funds.**

☐ **Option 2: Credit Card**

Payment by credit card is possible, however please note payment will be made in Australian dollars. If you would like to pay by credit card then please tick this box and return to Brett Mahar: **bmahar@processsafetyverification.com.au**. You will be contacted shortly.

**Cancellation policy**
Written cancellation received up to two weeks before the event will be subject of an administrative charge of $150. No refunds will be made for cancellation received after this date. Substitutions are welcome at any time up to the start of the event. Process Safety Verification reserves the right to modify or cancel the event.

By submitting this form you have agreed to our terms and conditions and cancelation policy. Terms and conditions available at **www.processsafetyverification.com.au/Training/terms**.