

Curriculum

Methodology Overview

- * DIERS
- * API
- * ASME
- * NFPA

Runaway Reaction Classification

- * Condensed Phase Reactions and Adiabatic Calorimetry
- * Vapor Phase Reactions

Vent Sizing Models

- * Condensed Phase Reactions (Vapor, Gassy and Hybrid Systems)
- * Vapor Phase Reactions (Gas and Dust Deflagrations)

Single and Two-Phase Flow Overview

- * Vessel Behavior and Flow Regimes
- * Vessel Blowdown and Vent Line Behavior
- * Subcritical and Critical Two-Phase Flows

Capacity Certification of Pressure Relief Valves in Two-Phase Flow

- * Sizing PRV Nozzles
- * Sizing Inlet Piping (3% Rule)
- * Sizing Outlet Piping (10% Rule)

Special Topics and Examples

- * Non-Reactive Fire Sizing Models for Foamy and Non-Foamy Systems
- * Discharge Reaction Forces
- * Effluent Control / Containment Considerations

Relief Systems Design Course

Location: Fauske & Associates, LLC
16W070 83rd Street
Burr Ridge, IL 60527

Date: October 4 - 5, 2010

Time: 8:30 a.m. - 4:30 p.m.

Featured Speaker:

Hans K. Fauske, D.Sc., president of Fauske & Associates, LLC served as the principal investigator and leader of the DIERS research project team. He is widely known for having developed a simple and cost-effective approach to relief system sizing including reactive systems and two-phase flow considerations.

Seminar Objectives

Unlike other emergency vent sizing courses offered, this course emphasizes “hand” calculation methods capable of giving safe but not overly conservative relief system designs with emphasis on reactive systems and the role of two-phase flows.

Benchmarking of these methods will be illustrated with incidents and available plant data. Utilization of methods and equations will be illustrated through practical design examples covering condensed phase (vapor, gassy and hybrid systems) as well as gas phase (gas and dust deflagrations) reactions.

Registration, Fees and Form (Please return form via fax or e-mail)

Hotel accommodations and travel expenses are the responsibility of the participants.

The seminar fee is \$1,500.00 USD, which includes course notes, morning refreshments, lunches and afternoon Refreshments each day. Please contact Lisa Karcz via Fax: (630) 986-5481, or e-mail Karcz@Fauske.com for registration and fee payment.

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