Process Safety News

Winter 2019 • Vol. No. 26 • Number 1

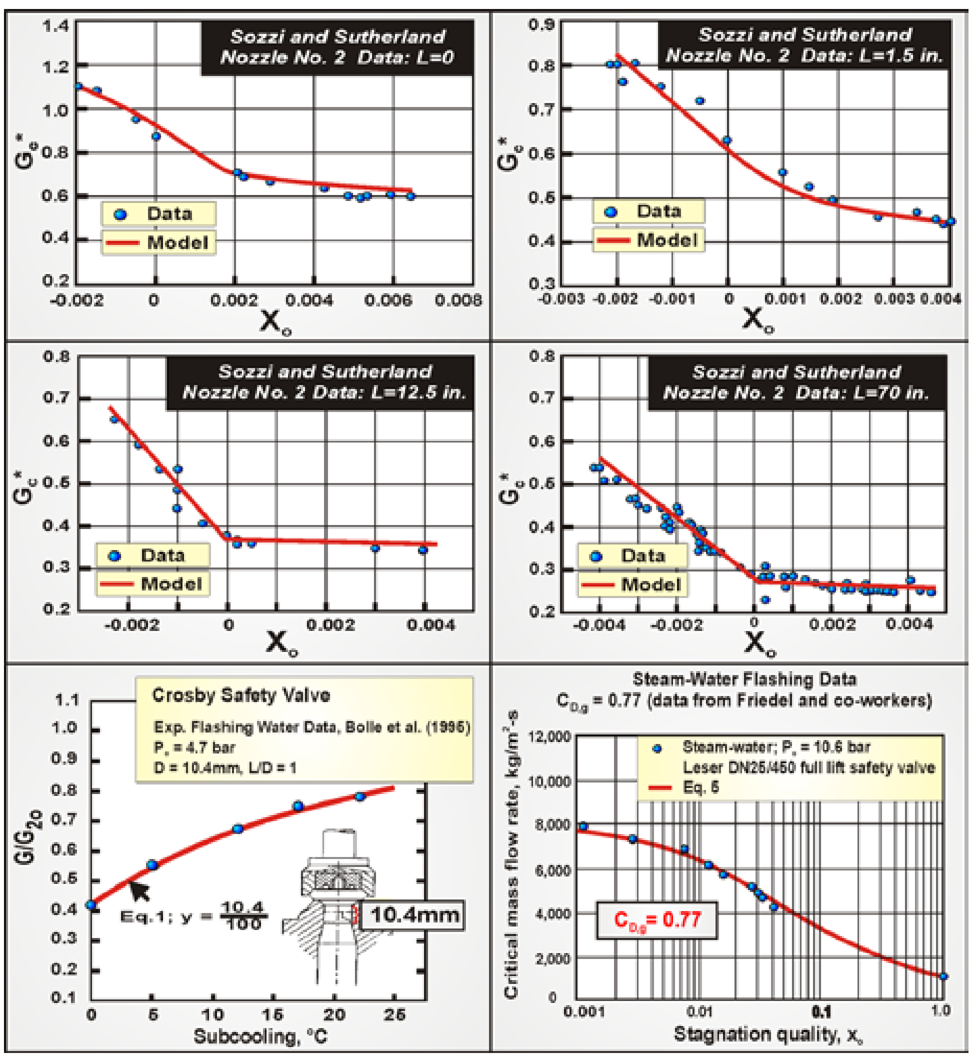
IN THIS ISSUE

Clarification of Non-Equilibrium and Equilibrium Flashing Flows

By Hans K. Fauske, D.Sc., Emeritus President and Regent Advisor

A simple and easy to apply two-phase flow model that is in excellent agreement with safety valve and nozzle-tube data is illustrated below. The constant flow area length L is the key parameter and values leading to non-equilibrium (short) and equilibrium (long) flashing flows are provided by the flow model. The nozzle inlet condition can be a subcooled liquid, a saturated liquid, or low quality two-phase vapor-liquid mixture, all conditions predicted accurately by the simple flow model.

The details and simple model example calculations will be presented at the AIChE DIERS September 16-18, 2019 meeting in Burr Ridge, Illinois, by Hans K. Fauske, D.Sc. Emeritus President and Regent Advisor, Fauske & Associates, LLC. Read more about the Fall 2019 DIERS meeting on page 8.



Letter From The President

Dear Customer,

Happy New Year! We hope you are starting 2019 off with good health and lots of prosperity.

Our 2018 was a big transition year, even down to our fiscal year changing to now coincide with the calendar year. We are excited to provide improved products and services to you after implementing a new continuous review process. Our engineers are committed to working even more directly with you, the customer. We hear you and we acknowledge your questions as well as your testing and engineering needs. You've inspired us. So much so, we have dedicated a new portion of our efforts to innovation projects to help solve your process safety, calorimetry, flammability, combustible dust, nuclear plant and waste issues. Our labs are busy developing new software, test vessels (such as a high pressure VSP2™ System with a stand and Super Stirrer option to provide improved ergonomics), emergency relief system design options and so much more! As always, FAI remains your one stop shop for excellence in safety engineering and testing.

Please let us know how we may of service to you this year.

Best Regards,

John W. Fasnacht, President

Introducing the new high pressure VSP2™ system designed to improve ergonomics, and capable of achieving higher pressures and temperatures compared to the standard VSP2™ system. Please contact parts@fauske.com to learn more.

No matter what material you're working with, if you have dust, getting a combustible dust test and dust hazard analysis (DHA) means you're taking safety processes seriously. Check out our latest video here to learn more.

Follow us on social media for industry and company updates

Recommendations on the Maximum Operating Pressure of ARC Test Cells

As a runaway reaction occurs in this apparatus, the pressure within the test cell naturally rises whether it be due to vapor pressure effects, the generation of non-condensable gas, or both.

By Kenneth Kurko, Chief Technology Officer

At Fauske & Associates, LLC (FAI), we are commonly asked about the burst pressures of the Accelerating Rate Calorimeter (ARC) test cells that we offer. The ARC is a high thermal inertia adiabatic calorimeter that is used to obtain runaway chemical reaction data. As a runaway reaction occurs in this apparatus, the pressure within the test cell naturally rises whether it be due to vapor pressure effects, the generation of non-condensable gas, or both. The pressure generated by the runaway reaction must be contained by the test cell. As a result of this requirement, the mass of the test cell is relatively large compared to the mass of test sample used. This means that as a runaway reaction progresses, heat from the reaction is absorbed by the test cell and the data are not directly applicable to the process scale.

The standard ARC test cell is approximately 10 ml in volume and is typically constructed of stainless steel, Hastelloy C, titanium, or tantalum. This size of test cell has an internal diameter of 1.0 inches. The wall thicknesses of test cells can be 0.020, 0.025, or 0.035 inches. A diagram of a test cell is provided in Figure 1.

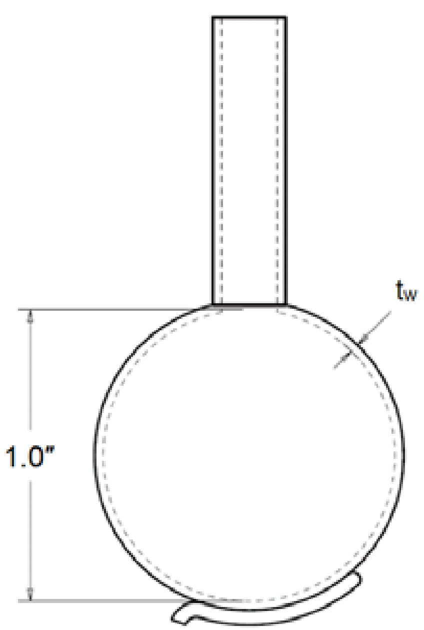


Figure 1 Standard 10 ml ARC Test Cell

The reasoning behind the desire to know the burst pressure is so that as much sample material can be added to the test cell as possible without causing a rupture during the test. This reduces the thermal inertia (or essentially, the amount of heat absorbed by the test cell) and ensures lower energy exothermic activity isn't masked. However, regardless of how much sample is loaded to a test cell, the resulting thermal inertia will never be representative of the process scale (1.05-1.10). The ARC isn't, and never was, intended to be a low thermal inertia calorimeter. The data from this apparatus will require correction for the thermal inertia. If low thermal inertia data are desired, a calorimeter intended for operation at low thermal inertias (VSP2 or ARSST) should be used.

Furthermore, this issue isn't as simple as telling an ARC user the burst pressure of a particular test cell. When designing a test, one must balance a number of variables to ensure optimal results: the sample mass, the maximum temperature that could be achieved during the test, the maximum pressure that could be achieved during the test, the maximum self-heat rate under which adiabatic conditions are maintained, and material compatibility between the test cell and sample.

In order to address the original question regarding test cell burst pressure, we'll focus on how the ultimate tensile strength of a given test cell material and the wall thickness are related to the peak temperature and peak pressure resulting during a test. The ultimate tensile strength decreases with increasing temperature. Figure 2 illustrates the effect of temperature on the ultimate tensile strengths of common test cell materials. Based on those tensile strengths, the theoretical burst pressures can be calculated for spheres with the specified dimensions provided in Table 1 using Equation 1 below.

$$\sigma_t = \frac{P \cdot r}{2 \cdot t_w} \qquad (1)$$

where
σ_t = ultimate tensile strength (Pa)
t_w = wall thickness of spherical portion of test cell (m)
r = inner radius of test cell (m)
P = internal gauge pressure (Pa)

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STAFF PROFILE: MEET FAI EHS LEAD TERESA DYSON

Teresa is the EHS Lead for Fauske & Associates, LLC (FAI). Her 20 years of experience began as an Environmental Chemist performing lead and copper analyses as part of remediation and drinking water projects for Housing and Urban Development, the Veterans Affairs and the Chicago Public School system.

She developed a love for the quality assurance and accreditation aspects of environmental lab work, while gaining additional skills in Polarized Light Microscopy performing asbestos analysis. Wearing both analytical and quality hats, she was charged with demonstrating compliance to the ISO 17025 standard through NIST National Voluntary Laboratory Accreditation Program (NVLAP) and American Industrial Hygiene Association (AIHA) programs. As quality manager she routinely used statistical tools to develop control limits and identify trends in data to ensure the validity of results.

... she will be synchronizing the existing culture of safety with a management system that demonstrates the FAI staff's strong commitment to excellence in environment, health and safety.

Inspired to play a role in protecting worker health after the loss of her father to the occupational disease, mesothelioma, she earned a graduate degree from the University Of Illinois at Chicago School of Public Health in Industrial Hygiene in 2002. She entered the Environmental and Occupational Health consulting arena performing Indoor Air Quality and Mold investigations as well as working as an Illinois Department of Public Health Asbestos Project Manager. Her work conducting perimeter dust monitoring during hospital renovation

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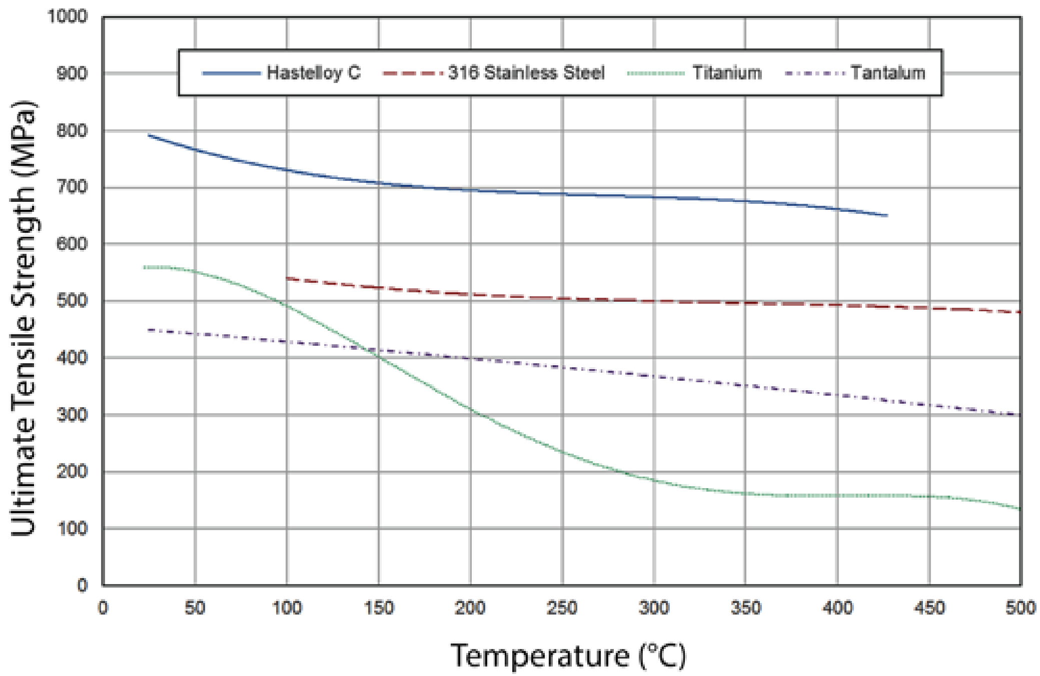

Figure 2 Ultimate Tensile Strength as a Function of Temperature for ARC Test Cell Materials

These are, of course, "ideal" calculations for a sphere that don't account for the actual geometry of the test cell, nor imperfections that invariably occur during the manufacturing process. For example, the presence of a weld seam and the inhomogeneous microstructures within the welded metal leads to higher corrosion rates when compared to wrought products. Types of factors such as this need to be taken into account. For this reason, the theoretical burst pressures should not be used for test design - a safety factor of 2 to 3 should be used. Table 1 summarizes the theoretical burst pressures and our recommended maximum operating pressures for the various ARC test cells we offer.

Continued on page 7

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projects provided real time data to the infection control team concerned with cross contamination into the Neonatal ICU. She also partnered with hospital administration to collect exposure data on Medical Technologists to help develop engineering controls for reducing noise levels within the chemistry laboratories. Prior to joining FAI, Teresa worked as Quality Manager of an environmental and microbiology laboratory where she was responsible for data quality management. She provided new employee training on the quality management system and supervised a team of data reviewers. Her leadership extended to the review and revision of standard operating procedures and oversight of document control. She conducted internal audits and was the point of contact for external audits by clients and accreditation bodies.

As EHS Lead, Teresa is responsible for assisting FAI with meeting its EHS compliance goals, using her regulatory compliance and Industrial Hygiene experience to align FAI with their parent company's EHS management system. With great procedures and knowledgeable staff already in place, she will be synchronizing the existing culture of safety with a management system that demonstrates the FAI staff's strong commitment to excellence in environment, health and safety.

Teresa calls her time outside of work her "second shift", having raised 3 stepdaughters and now her 12-year old son, Reuben and her miniature Schnauzer, Toby. If she is running late for work it is most likely because her "puppy love" tosses his ball at her feet to play fetch while she's getting dressed. She volunteers with Reuben's competitive swim team and is a PTA staff appreciation chair. She considers it a blessing to serve her church community in coordinating new member classes and co-teaching in the teen girl's ministry. She loves to cook Belizean cuisine, is often solicited to cater events, and is a Zumba dance addict.

We are happy to welcome Teresa to the FAI team.

I Have A Dust Collector: Now What?

According to the 2018 Mid-Year Combustible Dust Incident Report published by Dustex Research, Ltd., "Dust collection equipment is the leading cause of combustible dust incidents with an average just over 20% since 2016."

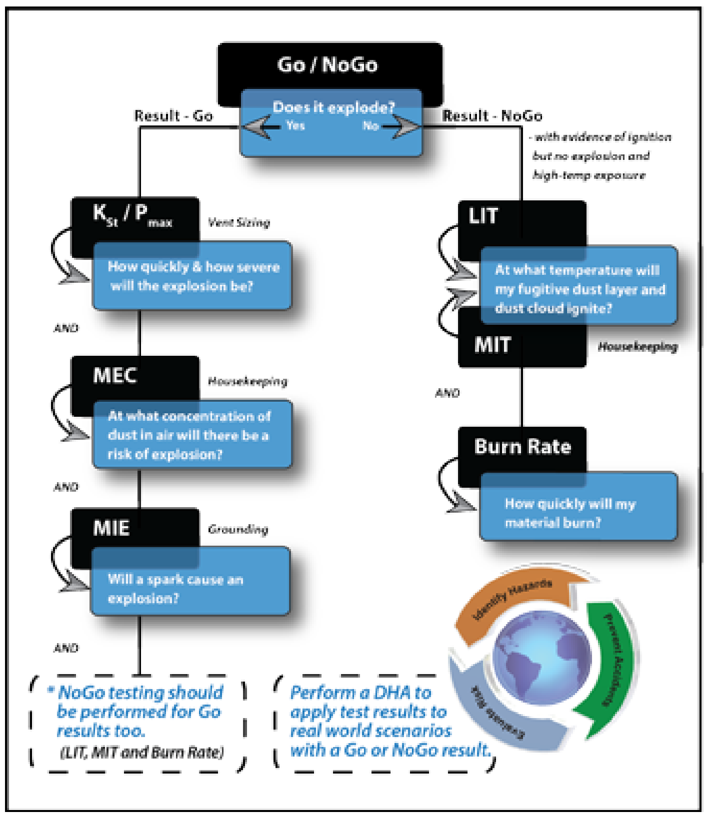
By Sara Peters, Senior Communications & Brand Specialist

Since the purpose of a dust collection system is to impart safety and effeciency in a manufacturing facility that produces dust, this statistic further reinforces the need to ensure that your equipment is properly configured for your unique situation. Some important first steps to consider as you look at your system include:

1. Identify the materials handled by a dust collector
2. Conduct a Go/NoGo Explosibility Screening Test and VDI 2263 burning behavior test to determine if the materials burn or are explosible
3. If the sample is a "Go", determine the K_{St} and P_{max} values with an Explosion Severity Test
4. If the sample is determined to have a low K_{St} value (< 50 bar-m/s), perform a 1 m^3 screening test to validate that the material is indeed combustible

What Do These Tests Tell You?

The Go/NoGo test tells you if the sample is combustible in dust cloud form. The VDI 2263 burning behavior test tells you if the sample burns. The Explosion Severity Test (K_{St} and P_{max}) quantifies how energetic the explosion could be. Once you have this information, we can provide calculations necessary for your dust collector provider to incorporate the proper explosion protection parameters into their equipment design.



Next Steps

Once you KNOW your dust is combustible, you need to ensure that you are handling it properly throughout the process. After the basic tests, more in depth testing as illustrated by the flowchart may be needed.

Ensuring the safety of your dust collection system is only one part of a sound combustible dust management program. A Dust Hazard Analysis (DHA) to evaluate the potential fire or explosion hazards in a process, document how the hazards are managed and identify mitigation steps may be beneficial as well.

A state of the art, independent combustible testing lab can assist you with your comprehensive combustible dust management program. Contact dust@fauske.com or 630-323-8750 to learn more.

Flammability Hazards Testing Guide

With all of the different regulations and standards available, as well as differing process operations, it can be difficult to know what testing or resources to use to help meet your needs.

By Paul Osterberg, Manager, Flammability Testing and Consulting Services

A consolidated reference table was prepared to provide users with a tool providing guidance fir appropriate testing and information based on their needs. This reference table is by no means complete, and additional testing or alternated testing may be required depending on your material or process.

Table 1 Testing Needs for Classification Purposes

<table>
<tr><th>Need</th><th>Testing to be Performed</th><th>Classification</th><th>Comments</th></tr>
<tr><td>Shipping</td><td>• Closed Cup Flash Point
• Boiling Point</td><td>
<table>
<tr><th>Packing Group</th><th>Flash Point (closed-cup)</th><th>Initial Boiling Point</th></tr>
<tr><td>I</td><td>—</td><td>≤ 35°C</td></tr>
<tr><td>II</td><td>< 23°C</td><td>> 35°C</td></tr>
<tr><td>III</td><td>≥ 23°C, ≤ 60°C</td><td>> 35°C</td></tr>
</table>
</td><td>Refer to the UN Model Regulations, for further guidance</td></tr>
<tr><td>Storage</td><td>• Closed Cup Flash Point</td><td>
<table>
<tr><th>Flammable Liquids</th><th>Flash Point (closed-cup)</th><th>Initial Boiling Point</th></tr>
<tr><td>Class IA</td><td>< 22.8°C</td><td>< 37.8°C</td></tr>
<tr><td>Class IB</td><td>< 22.8°C</td><td>≥ 37.8°C</td></tr>
<tr><td>Class IC</td><td>≥ 22.8°C, ≤ 37.8°C</td><td>—</td></tr>
</table>
<table>
<tr><th>Combustible Liquids</th><th>Flash Point (closed-cup)</th><th>Initial Boiling Point</th></tr>
<tr><td>Class II</td><td>≥ 37.8°C</td><td>—</td></tr>
<tr><td>Class IIIA</td><td>≥ 60°C, < 93°C</td><td>—</td></tr>
<tr><td>Class IIIB</td><td>≥ 93°C</td><td>—</td></tr>
</table>
</td><td>Refer to NFPA 30, Flammable and Combustible Liquids Code, for further guidance</td></tr>
<tr><td>Area Classification</td><td>• Maximum Experimental Safe Gap (MESG)
• Minimum Igniting Current (MIC)</td><td>
<table>
<tr><th>Class I, Division 1 and 2</th><th>MESG</th><th>MIC Ratio</th><th>Representative Material</th></tr>
<tr><td>Group A</td><td>—</td><td>—</td><td>Acetylene</td></tr>
<tr><td>Group B</td><td>≤ 0.45 mm</td><td>≤ 0.40</td><td>Hydrogen</td></tr>
<tr><td>Group C</td><td>≥ 0.45 mm, < 0.75 mm</td><td>> 0.40 , ≤ 0.80</td><td>Ethylene</td></tr>
<tr><td>Group D</td><td>>0.75 mm</td><td>> 0.80</td><td>Propane</td></tr>
</table>
<table>
<tr><th>Class I, Zone 0, 1, or 2</th><th>MESG</th><th>MIC Ratio</th><th>Representative Material</th></tr>
<tr><td>Group IIA</td><td>≥ 0.90 mm</td><td>> 0.80</td><td>Acetone</td></tr>
<tr><td>Group IIB</td><td>≥ 0.50 mm, < 0.90 mm</td><td>> 0.45, ≤ 0.80</td><td>Ethylene</td></tr>
<tr><td>Group IIC</td><td>≤ 0.50 mm</td><td>≤ 0.45</td><td>Acetylene</td></tr>
</table>
</td><td>Refer to NFPA 497, Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas, for further guidance</td></tr>
</table>

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PROCESS SAFETY NEWS IS PUBLISHED QUARTERLY BY

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Statement of Purpose:

FAI's "Process Safety News" is intended to be a forum on recent advances in chemical process safety and FAI's current and related offerings in this area. It will address subscribers' concerns regarding issues and practices for relief system design as well as laboratory testing and techniques for process safety management.

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WORLD LEADER IN NUCLEAR AND CHEMICAL PROCESS SAFETY

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Table 1 Theoretical Burst Pressure and Recommended Maximum Operating Pressure as a Function of Maximum Test Temperature for Standard ARC Test Cells

Test Cell Type	Wall Thickness in	Temperature °C	Ultimate Tensile Strength MPa	Theoretical Burst Pressure bar (psi)	Recommended Maximum Operating Pressure bar (psi)
ARC-FH-1	0.035	25	792	1,110 (16,100)	370-550 (5,400-8,000)
		250	688	960 (14,000)	320-480 (4,700-7,000)
		450	637	890 (12,900)	300-450 (4,300-6,500)
ARC-FH-2	0.035	25	792	1,110 (16,100)	370-550 (5,400-8,000)
		250	688	960 (14,000)	320-480 (4,700-7,000)
		450	637	890 (12,900)	300-450 (4,300-6,500)
ARC-FH-3	0.025	25	792	790 (11,500)	260-400 (3,800-5,700)
		250	688	690 (10,000)	230-340 (3,300-5,000)
		450	637	640 (9,200)	210-320 (3,100-4,600)
ARC-FH-4	0.025	25	792	790 (11,500)	260-400 (3,800-5,700)
		250	688	690 (10,000)	230-340 (3,300-5,000)
		450	637	640 (9,200)	210-320 (3,100-4,600)
ARC-FS-1	0.035	25	578	810 (11,700)	270-400 (3,900-5,900)
		250	505	710 (10,300)	240-350 (3,400-5,100)
		450	488	680 (9,900)	230-340 (3,300-5,000)
ARC-FS-2	0.035	25	578	810 (11,700)	270-400 (3,900-5,900)
		250	505	710 (10,300)	240-350 (3,400-5,100)
		450	488	680 (9,900)	230-340 (3,300-5,000)
ARC-FS-3	0.020	25	578	460 (6,700)	150-230 (2,200-3,400)
		250	505	400 (5,900)	130-200 (2,000-2,900)
		450	488	390 (5,700)	130-200 (1,900-2,800)
ARC-FS-4	0.020	25	578	460 (6,700)	150-230 (2,200-3,400)
		250	505	400 (5,900)	130-200 (2,000-2,900)
		450	488	390 (5,700)	130-200 (1,900-2,800)
ARC-FT-1	0.035	25	560	780 (11,400)	260-390 (3,800-5,700)
		250	235	330 (4,800)	110-160 (1,600-2,400)
		450	157	220 (3,200)	70-110 (1,100-1,600)
ARC-FT-2	0.035	25	560	780 (11,400)	260-390 (3,800-5,700)
		250	235	330 (4,800)	110-160 (1,600-2,400)
		450	157	220 (3,200)	70-110 (1,100-1,600)
ARC-FT-3	0.020	25	560	450 (6,500)	150-220 (2,200-3,200)
		250	235	190 (2,700)	60-90 (900-1,400)
		450	157	130 (1,800)	40-60 (600-900)
ARC-FT-4	0.020	25	560	450 (6,500)	150-220 (2,200-3,200)
		250	235	190 (2,700)	60-90 (900-1,400)
		450	157	130 (1,800)	40-60 (600-900)
ARC-FTANT-2	0.035	25	450	630 (9,100)	210-320 (3,000-4,600)
		250	383	540 (7,800)	180-270 (2,600-3,900)
		450	318	450 (6,500)	150-220 (2,200-3,200)

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UPCOMING EVENTS IN 2019

Visit with representatives from Fauske & Associates, LLC at these tradeshows and conferences in 2019:

- **2019 Indiana Safety and Health Conference & Expo**
  - February 26 – 28, Indianpolis, IN
- **2019 Ohio Safety Congress & Expo**
  - March 6 – 8, Columbus, OH
- **Wisconsin Safety Council Annual Conference**
  - April 15-17, Wisconsin Dells, WI
- **Michigan Safety Conference 2019**
  - April 16-17, Grand Rapids, MI
- **AIHce EXP 2019**
  - May 20-22, Minneapolis, MN
- **NSC 2019 Expo**
  - September 9-11, San Diego, CA
- **2019 AIChE Annual Meeting**
  - November 10-15, 2019, Orlando, FL

We look forward to seeing you!

Need help collecting dust samples for testing?

Our convenient dust collection kit is carefully curated with all the tools you need to help make the process easy for you.

We are your one-stop shop for combustible dust testing and hazard assessment needs.

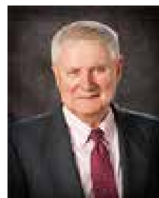
Contact us at dust@fauske.com to learn more

DIERS

Come and see Fauske & Associates, LLC (FAI) at the

Fall 2019 DIERS Meeting

September 16-18
Chicago Marriott Southwest at Burr Ridge
Burr Ridge, Illinois



Don't miss this opportunity to hear featured keynote speaker, Dr. Hans K. Fauske, present on predicting equilibrium and non-equilibrium flow.

Dr. Fauske provided overall technical direction for the AIChE's acclaimed DIERS program formed in 1976 as a consortium of 29 companies to develop methods for the design of emergency relief systems to handle runaway reactions. Currently, Dr. Fauske is performing a key role in resolving potential process safety issues and the development of inherently safe nuclear and chemical process reactor concepts.

On Tuesday, September 17, FAI will host DIERS meeting attendees at our Burr Ridge, IL campus for lunch and a tour of our state of the art laboratory facilities.

To learn more about the Fall 2019 DIERS Meeting and how to register visit: https://www.aiche.org/design-institute-emergency-relief-systems-diers. We look forward to seeing you in September!

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Table 2 Testing Needs for SDS and Material Processing

Need	Testing to be Performed	Comments
SDS Creation	• Closed Cup Flash Point • Boiling Point • pH	This is the minimum testing data needed for creation of an SDS
General Processing or Handling	• Flash Point (Closed and/or Open) • Flammability Limits • Minimum Ignition Energy (MIE) • Maximum Experimental Safe Gap	AIChE - CCPS Engineering practices
Process Operations with intent to operate outside of the Flammable Region	• Flammability Limits • Temperature Limits of Flammability • Minimum Oxygen Concentration (MOC)	Refer to NFPA 69, *Standard on Explosion Prevention Systems*, for further guidance
Process Operations with intent to operate inside of the Flammable Region	Primary Testing • Explosion Severity Testing – • Determination of maximum overpressure, deflagration index, and burning velocity Additional Testing Options • Maximum Experimental Safe Gap • Minimum Ignition Energy (MIE) • Minimum Oxygen Concentration (MOC) • Flammability Limits • Temperature Limits of Flammability	Refer to NFPA 69, *Standard on Explosion Prevention Systems*, and NFPA 68, *Standard on Explosion Protection by Deflagration Venting*, for further guidance
Process operations at elevated temperatures	• Autoignition Temperature (AIT) • Temperature Limits of Flammability	Conduct a Process Hazards Analysis (PHA)

If you need assistance in determining appropriate flammability testing or guidance on interpretation and implementation of various standards or regulations, feel free to contact us at flammability@fauske.com or 630-323-8750.

NFPA 652

– An Introduction to Dust Hazard Analysis

2019 Date and Location:

May 22 - 23, 2019

Hilton Garden Inn Charlotte Airport
2400 Cascade Point Boulevard, Charlotte, NC 20208

Course Description

Day 1** (Prerequisite for Day 2)* | ***Time: 8 am - 4:30 pm | ***CEU's: 0.7***

This course will ensure all participants are aware of important issues associated with NFPA 652 and describe how this standard interacts with other relevant NFPA codes and guidelines. A special emphasis will be placed on explaining the requirements for a Dust Hazard Analysis (DHA) and an overview of the methodologies that can be employed to perform a DHA. The course will also include a logical approach to characterizing a powder's hazardous dust properties, as well as a description of various techniques used to control and/or avoid dust explosions in a safe and compliant manner.

Scheduled Agenda

- Introduction
- Overview of NFPA 652
- Fundamentals of Dust Explosions
- Introduction to DHA methodology
- Mock DHA on a Small Blending Operation

Outcomes

- Protection Options
- Daily Learning Assessment
- Questions and Answers
- Course Evaluation Instruction

Day 2 | ***Time: 8 am - 4:30 pm*** | ***CEU's: 0.7***

Advanced DHA Workshop

The Advanced DHA Workshop will focus on how to organize, lead, and implement the DHA study. This will include how to utilize appropriate test methods to determine potential dust hazards; as well as how to apply appropriate mitigation techniques to prevent or control combustible dust hazards. During the workshop, participants will have the opportunity to apply DHA methodologies to realistic combustible dust scenarios.

Pricing

Two Day Course: $1100
Day 1 only: $600
Day 2 only: $600

ACCREDITED IACET PROVIDER

Fauske & Associates, LLC is accredited by the International Association for Continuing Education and Training (IACET) and is authorized to issue the IACET CEU

For hotel information or to register, please contact: FAIUniversity@fauske.com
Please direct instructor or course related questions to Ashok G. Dastidar - dastidar@fauske.com

www.fauske.com **(630) 323-8750**

FAUSKE & ASSOCIATES, LLC
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REGISTRATION FORM

NFPA 652 - An Introduction to Dust Hazard Analysis
May 22 - 23, 2019

Pricing: ◯ **Day1 only - $600** ◯ **Day 2 - $600** ◯ **Both Days - $1100**

Hilton Garden Inn Charlotte Airport
2400 Cascade Point Boulevard, Charlotte, NC 20208

First Name: ____________________ Last Name: ____________________

Company Name: ____________________ Position: ____________________

Address: *(address must match the address of credit card used)* ____________________

City: ____________________ State: ________ Zip: ____________________

Phone: ____________ Cell: ____________________ Fax: ____________________

Email: ____________________

Payment Method: ☐ Visa ☐ Mastercard ☐ AmEx ☐ Purchase Order ☐ Company Check

Name on Account: ____________________

Account Number: ____________________ Expiration Date: ________ Security Code: ________

Signature authorizing Fauske & Associates, LLC, to charge credit card: ____________________

- **Fees must be received prior to course commencement**
- **Hotel accommodations and travel expenses are the responsibility of the participant**
- **Fees include course notes, continental breakfast and lunch**

Technological/ Education Requirements:
There are no technological requirements for this introductory course. Grade 12 or higher education and 2-3 years professional experience are required.

CEU Credit Eligibility: FAI is an accredited by the International Association for Continuing Education & Training (IACET) and is authorized to issue the IACET CEU. In order to be eligible for CEU credit (0.7 per course), attendees must be present for the duration of the course, score 85% or higher on the course assessment and complete the course evaluation.

Privacy: Fauske & Associates, LLC has a written policy to ensure privacy and confidentiality of participant training records and information. Training records will only be released with the expressed written permission of the participant. The participant record will be released to the participant or designated third party within14 business days of the request.

Cancellation Policy: Cancellations will be accepted up to one month prior to course date.

To register, please email: FAIUniversity@fauske.com, Fax: (630) 986-5481
(Please direct instructor or course related questions to: Ashok Dastidar, dastidar@fauske.com)