

58th Annual Loss Prevention Symposium (LPS 2024)

Held at the 2024 AIChE Spring Meeting and 20th Global
Congress on Process Safety

New Orleans, Louisiana, USA
24-28 March 2024

ISBN: 979-8-3313-1700-3

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2024) by AIChE
All rights reserved.

Printed with permission by Curran Associates, Inc. (2025)

For permission requests, please contact AIChE
at the address below.

AIChE
120 Wall Street, FL 23
New York, NY 10005-4020

Phone: (800) 242-4363
Fax: (203) 775-5177

www.aiche.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Strategic Emergency Planning – Case Study for a Gas Separation Plant	1
<i>Stuart Chia, Dusit Pitanupong, Thakatkaw Saingam, Polkrit Chouyyoung</i>	
Digitizing Emergency Response: Risks and Opportunities of Emerging Technology for Incident and Emergency Responders	10
<i>Gareth Black</i>	
Fire Safety Design Philosophy (FSDP): Guideline for Oil, Gas and Petrochemical Industries	18
<i>Mohamad Rosli Abu Seman, Nur Farhanah Nadhirah Mohamad Adam, Nurul Izzah Yaakub</i>	
Using Human Factors to Improve Cybersecurity	25
<i>Patrick O'Brien</i>	
OT Cybersecurity: What Is This All About?	38
<i>Randy Montgomery, Blake Benson, Scott Sandler, Steve Furgerson</i>	
Managing the Broken SIS through Peak Risk Analysis	49
<i>Kedar Hanmant Kottawar, Jyoti Sharma, Angela Summers</i>	
Optimization of QRA Tools & Power BI Interrogation to Support Agile Risk-Informed Decision Making	63
<i>Ganesh Mohan, Jim Salter, Rod Travis</i>	
Using Time-Varying QRA to Evaluate Hazards during a Turnaround or Temporary Operations.....	75
<i>Colin Armstrong</i>	
A Novel Approach to Strengthening Conventional Light Wood Trailer Portable Buildings	87
<i>Gabriel Shelton, Thomas Anderson</i>	
A Practicable Approach to Reactive Pressure-Relief System Design for Multi-Purpose Vessels.....	110
<i>Casey Houston, Surendra Singh</i>	
Considerations for the Safe Handling and Processing of Unstable Materials	137
<i>Brian Ott, Nicholas Welchert, Laurent Delafontaine, Ali Reza, Matevz Frajnkovic</i>	
I've Identified Overpressure Caused by Tube Failure and Subsequent Chemical Reaction as a Credible Scenario during My PHA, Now What?.....	160
<i>Elizabeth Raines, Alec Slazas, Kenneth Kurko, Sara Townsend</i>	
What to do with your Maintenance Records for Safeguards?	185
<i>Angela E. Summers, Julia V. Bukowski</i>	
The Need for Proper Planning Case Studies from Challenging DHAs	196
<i>Michelle Murphy</i>	
Lessons Learned from Battery Energy Storage Systems (BESS) Hazard Analyses	204
<i>Veronica Goldsmith</i>	
Carbon Dioxide Pipeline Dispersion Modeling Comparison	215
<i>Cynthia Spitzenberger, Gabriele Ferrara, Tatiana Norman, Gean Rocha, Kejia Wu</i>	

Integrating Process Development and Safety Analysis for Scale-up of a Diborane-Generating Reduction Reaction	237
<i>Ralph Zhao</i>	
How to Accurately Predict Thermal Runaway: Experimental Study Involving LAB-Scale and Full-Scale TESTS.....	249
<i>Scott Davis, John Pagliaro, Derek M. Engel, Tom DeBold</i>	
Thermal Hazard Evaluation of 1-Hydroxybenzotriazole Hydrate By DSC, ARC and Calvet Calorimeter (C80).....	271
<i>Jiliang He, Zhizhong Dong, Michael Carolan, Mike Snyder</i>	
A Comprehensive Pipeline Source Term Model for Pressurized/Flashing Liquids in Phast/Safeti (PIPEBREAK-II).....	281
<i>Adeyemi Oke, Jan Stene, David Worthington, Mike Harper, Frank Hart</i>	
Advanced Consequence Modeling and Risk Analysis.....	317
<i>Karen Study, John Currie</i>	
Fire Impairment Analysis for Designing Offshore Depressurization System.....	332
<i>Soraya Tamara Abdul Malik, M Sanusi Nor Azman, Nur Farhanah Nadhirah Mohamad Adam, Mohd Ashraf Mohd Ibrahim</i>	

Author Index