

**DIERS Users Group Meeting Agenda**  
**Mathematical Modeling of ERS Design**

Monday 8:00 AM – 5:00 PM  
 Sept 16, 2019

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|----|---------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------|
| 1. | Welcome / Meeting Announcement                                                  | (8:00-8:15)   | Harold G. Fisher<br>Chair                                                                                       |
| 2. | Technical Presentations                                                         |               |                                                                                                                 |
| A. | What is New with SuperChems v9.0<br>for DIERS                                   | (8:15-9:15)   | Georges A. Melhem<br>ioMosaic Corp.                                                                             |
| B. | DIERS Projects Update and Discussion                                            | (9:15-10:15)  | Greg G. Hendrickson<br>CPChem                                                                                   |
| 3. | Break                                                                           | (10:15-10:45) | ALL                                                                                                             |
| C. | DIERS Tutorial for FIRE Case - Update<br>September 2019                         | (10:45-11:15) | Freeman Self<br>Bechtel<br>Kerry McBride<br>Nancy Faulk<br>Phong Pham<br>Lakshmana Tangirala<br>Caleb Mutschter |
| D. | Relief Valve Stability, an Acoustical<br>Problem                                | (11:15-12:15) | Dustin Smith<br>Smith and Burgess                                                                               |
| 4. | Lunch                                                                           | (12:15-1:30)  | ALL                                                                                                             |
| E. | Clarification of Non-Equilibrium and<br>and Equilibrium Flashing Flows          | (1:30-2:30)   | Hans K. Fauske<br>Fauske&Associates, LLC                                                                        |
| F. | A Review of the Use of Dynamic<br>Amplification Factors in ERS Piping<br>Design | (2:30-3:00)   | Jens Conzen<br>Jensen Hughes                                                                                    |
| 5. | Break                                                                           | (3:00-3:30)   | ALL                                                                                                             |
| G. | Sizing Low Pressure Venting Systems<br>Using SuperChems™                        | (3:30-4:00)   | Fred Landers<br>John J. Hauser<br>PROSAF Inc.                                                                   |
| H. | Modeling Relief Requirements for<br>Compressors                                 | (4:00-5:00)   | Georges A. Melhem<br>ioMosaic Corp.                                                                             |
| 6. | Adjourn Meeting                                                                 | (5:00- )      | ALL                                                                                                             |
| 7. | HNE Two-Phase Flow Discussion                                                   | (5:15-6:15)   | Interested Persons                                                                                              |

**DIERS USERS GROUP MEETING AGENDA**  
**Business Meeting / Committee Reports / Technical Presentations**

Tuesday 8:00 AM – 5:00 PM  
 Sept 17, 2019

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|----|-----------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------|
| 1. | Welcome / Chairman's Report / Minutes                                                               | (8:00-8:30)   | Harold G. Fisher<br>Chair<br>Georges Melhem<br>Vice-Chair/Secretary |
| 2. | Technical Presentations                                                                             |               |                                                                     |
| A. | Consideration for Selection / Use of Rupture Discs in Fire Relief Case                              | (8:30-9:00)   | Alan McQueen<br>Fike Corp.                                          |
| B. | Bad Engineering Practice - Lessons Learned from Incorrectly Engineered Pressure Relief Applications | (9:00-9:30)   | Stefan Penno<br>Rembe GmbH                                          |
| C. | Analytical Modeling to Study the Effect of Inlet Piping on the PRV Chatter Phenomenon               | (9:30-10:00)  | Basar Ozar<br>Jensen Hughes                                         |
| 3. | Break                                                                                               | (10:00-10:30) | ALL                                                                 |
| D. | Why Don't We Use Section 1 Valves in Section 8 Applications                                         | (10:30-11:00) | Russell Merriam<br>Sean Croxford<br>CurtissWright                   |
| E. | API 520 Figure 6 - A Review of this Figure Versus Test Data                                         | (11:00-11:45) | Dustin Smith<br>Smith and Burgess                                   |
|    | Break Before Travel to FAI for Lunch                                                                | (11:45-12:00) | ALL                                                                 |
|    | Load Bus and Travel to FAI for Lunch / Unload                                                       | (12:00-12:30) | ALL                                                                 |
| 4. | Lunch Sponsored by Fauske & Associates, LLC                                                         | (12:30-1:20)  | ALL                                                                 |
|    | Welcome                                                                                             | (1:20-1:30)   | John Fasnacht<br>President, FAI                                     |
|    | Lunch / Issue Access Badges / Form Into Four Groups                                                 |               | ALL                                                                 |
|    | Move to Stations 1 - 4 by Assigned Group                                                            | (1:30-1:40)   |                                                                     |
| F. | Station 1 (Flammability Testing)                                                                    | (1:40-2:10)   |                                                                     |
|    | Rotate Stations by Group in Numerical Order                                                         | (2:10-2:20)   |                                                                     |
| G. | Station 2 (Calorimetry Testing)                                                                     | (2:20-2:50)   |                                                                     |
|    | Rotate Stations by Group in Numerical order                                                         | (2:50-3:00)   |                                                                     |
| H. | Station 3 (Hydraulic Flow Testing)                                                                  | (3:00-3:30)   |                                                                     |
|    | Rotate Stations by Group in Numerical Order                                                         | (3:30-3:40)   |                                                                     |

|    |                                                          |             |     |
|----|----------------------------------------------------------|-------------|-----|
| I. | Station 4 (Dust Flammability /<br>Explosibility Testing) | (3:40-4:10) |     |
|    | Reassemble / Closeout and Load Bus to Hotel              | (4:10-4:30) |     |
|    | Bus to Group Hotel                                       | (4:30-5:00) |     |
| 5. | Adjourn                                                  | (5:00- )    | ALL |

**DIERS USERS GROUP MEETING AGENDA**  
**ERS Design / Testing Methodology**

Wednesday 8:00 AM - 3:00 PM  
Sept 18, 2019

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|----|----------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------|
| 1. | Welcome                                                                                                        | (8:00-8:05)   | Harold G. Fisher<br>Chair                                  |
| 2. | Technical Presentations                                                                                        |               |                                                            |
| A. | DIERS Round-Robin Testing: Reactivity Study of Epichlorohydrin                                                 | (8:05-8:45)   | Georges A. Melhem<br>Surendra K. Singh<br>ioMosaic Corp.   |
| B. | An Update to Fauske's Emergency Relief Sizing Tools                                                            | (8:45-9:15)   | Benjamin C. Doup<br>Fauske&Associates, LLC                 |
| C. | Best Practice for Fitting Kinetic Models for Relief Systems Simulation and Design                              | (9:15-10:15)  | Georges A. Melhem<br>ioMosaic Corp.                        |
| 3. | Break                                                                                                          | (10:15-10:45) | ALL                                                        |
| D. | Disengagement Dynamics in HCN Storage Tanks                                                                    | (10:45-11:15) | Benjamin C. Doup<br>Fauske&Associates, LLC<br>Todd Brandes |
| E. | Adding Process Flexibility to the Simplified Fauske Methods for Runaway Reaction Sizing Based on ARSST Testing | (11:15-12:00) | Fred Landers<br>John J. Hauser<br>PROSAF Inc.              |
| 4. | Lunch                                                                                                          | (12:00-1:15)  | ALL                                                        |
| F. | Reaction Calorimetry Data and Scale-up Considerations for the Hydrolysis of Epichlorohydrin                    | (1:15-2:00)   | Donald J. Knoechel<br>Fauske&Associates, LLC               |
| G. | Phase Separation in Effluent Handling: Introduction to Its Impact in ERS Design                                | (2:00-3:00)   | Dilip K. Das<br>ioMosaic Corp.                             |
| 5. | Adjourn                                                                                                        | (3:00- )      | ALL                                                        |