



*virtu*AIChE®

*This month's meeting:*

*Primary (with live discussion/live chat) Wednesday, Oct 27 at 9 pm ET (US) / 1 am GMT  
Alternate 1 (with live discussion/live chat) Thursday, Oct 28 at 7 am ET (US) / 11 am GMT  
Alternate 2 (with live discussion/live chat) Thursday, Oct 28 at 1 pm ET (US) / 5 pm GMT*

## **Don't Wake Sleeping Dragons: Managing Often-Overlooked Ignition Hazards**

Presented by Sarah Eck and Jena Dorrin,  
DEKRA Process Safety.

Engineers are often aware of the inherent flammable and combustible properties of the materials they use, ranging from flammable liquids to combustible dust to ignitable gas. However, they often miss seemingly “hidden” ignition hazards that are a result of using existing plant equipment or are hazards created by the unintended consequences of process change. Just like the heroes featured in children’s stories, there is great reward possible if the engineering heroes enter the dragon’s lair without “waking the dragon”. It is possible to use flammable and combustible materials safely, and avoid ignition. This talk will start a conversation about often-overlooked ignition hazards (the dragons), and what to do to mitigate risk. One or both presenters will be available for each webinar time to help facilitate a discussion.



Sarah Eck is a Senior Process Safety Engineer at DEKRA. She has a degree in chemical engineering from Purdue University, is a professional engineer and a certified process safety professional. She has experience in the specialty chemical, pharmaceutical, polysilicon, and agriscience industries.

Jena Dorrin is a Test Engineer at DEKRA Process Safety. She has a degree in chemical engineering from Drexel University and is a Certified Safety Professional. She has experience in pharmaceuticals, medical devices, and process safety hazard and flammability testing. She is a member of ASHRAE and AICHE.



***Note that registration for VLS meetings is required.  
Our meetings are still free to attend and open to all.***

## **October Meeting Registration Information**

<b>Primary</b>	<b>Alternate 1</b>	<b>Alternate 2</b>
(Live Presentation/Live Chat)	(Recorded Presentation/Live Chat)	(Recorded Presentation/Live Chat)
Oct 27 at 9 PM EST / 1 AM GMT	Oct 28 at 7 AM EST / 10 AM GMT	Oct 28 at 1 PM EST / 5 PM GMT
Register in advance for the <a href="#">Primary Meeting</a>	Register in advance for the <a href="#">Alternate 1 Meeting</a>	Register in advance for the <a href="#">Alternate 2 Meeting</a>

After registering, you will receive a confirmation email containing instructions for joining the meeting, along with add-to-calendar links.

## **VLS Presents 7th Annual “Student Co-op and Internship Presentation Competition”**

VLS will host the 7th Annual Student Co-op and Internship Presentation Competition for recent Co-op and Internship students. This annual competition consistently gives students who do industrial co-op and internships an opportunity to showcase their work and improve their presentation skills. It also gives VLS members an opportunity to recognize exceptional work done by these students. All students\* are invited to submit an abstract by 1/3/2022; based on abstracts the top four will be invited to present at the February 23rd 2022 VLS meeting. Prizes ranging from \$150 to \$500 will be awarded to these four presenters.

VLS and AICHE members whose companies have co-op/intern employees are especially encourage your co-op/intern to submit an abstract. Presentations should be less than 10 minutes and will be judged by practicing chemical engineers and AIChE VLS members, based on:

- Application/demonstration of chemical engineering principles to students’ work
- Understanding of process and/or chemistry
- Clarity/appearance of slides and presentation
- Understanding how student’s work is used/applied/extended into other applications/industries
- Ability to answer questions

\*Participants must meet the following qualifications:

- Undergraduate ChemE students (graduating Dec 2021 or later)
- Spring/Summer/Fall 2021 Co-op or Intern students
- Teams of 2 students are permitted if both meet qualifications

The submission form is available online at Co-op and intern contest. Submit questions to Noah Meeks, Past Chair, at [NoahChemE@icloud.com](mailto:NoahChemE@icloud.com)

## Virtual Local Section Sponsored Seminars

The Virtual Local Section (VLS) wishes to provide additional services to its members and the wider chemical engineering community, especially local sections, divisions/forums, and student chapters. To do this, in addition to the monthly meetings, the section will sponsor seminars.

Next month's Seminar is Co-Sponsored with the Tappan-Zee Local Section:

### Treatment Challenges and Strategies for High-Tech Industrial Wastewaters

Synopsis: High-tech industries, such as semiconductor manufacturing and data centers, produce waste streams that are both high in volume and complex in composition. These facilities either rely on publicly owned treatment works (POTWs) to receive and process their wastewater or it is treated onsite prior to discharge.

High-tech wastes often consist of combinations of:

- Brine from ultrapure water treatment
- Blowdown from cooling towers that contains disinfectants and proprietary corrosion and scale prevention chemicals
- High COD waste streams
- Plating wastes containing nitrification inhibitors and reactive silica
- Neutralized HF wastes (high in calcium and fluoride)

Treatment of these waste streams at the factory will be dependent upon 1) the amount of stream segregation and 2) the end use of the treated water.

This presentation will discuss state-of-the-art strategies for high-tech industrial wastewater treatment, including biological treatment, dissolved inorganic and organic carbon removal using reverse osmosis (RO), and brine treatment, including zero liquid discharge systems.

About the Speakers:

**Brandon Yallaly** who is a Vice President with Carollo Engineers and has 21 years of experience leading desalination and concentrate minimization projects across a range of industries.

**Nathan Zaugg** who has served as a project manager and engineer for a variety of water and wastewater projects across the globe.

Thursday November 11 2021, beginning at 7:00 PM EST, For further information Visit the website at [www.tzaiche.org](http://www.tzaiche.org)

## Upcoming VLS Meetings

The VLS has monthly meetings. The following meetings have firm dates and speakers.

Dates	Topic
Nov 2021	bp's Decarbonization Plan
Dec 2021	Holiday Social
Jan 2022	Biomimicry: Green Chemistry Innovations Inspired by Nature

## Past VLS Meetings

The VLS records its monthly meetings and archives them on the AIChE Academy website in case you missed a meeting or are looking for a particular topic. See below for current recordings.

Date	Event
Jun 2021	<a href="#">Chemical Fuels in Carbon Neutral Energy system</a>
Apr 2021	<a href="#">Impactful Online Meetings</a>
Feb 2021	<a href="#">Overcoming the Challenge of Applying Chemical Engineering Principles to the Art of Winemaking</a>
Jan 2021	<a href="#">DIERS Technology Fundamentals II: VLS January 2021 Webinar</a>
Nov 2020	<a href="#">Protecting Lives and Livelihood: Hazardous Materials Classification and its Impact to the Supply Chain</a>
Oct 2020	<a href="#">Chemical Safety Board (CSB) Accidental Release Reporting Rule</a>
Sep 2020	<a href="#">Internships and Undergraduate Education</a>
Aug 2020	<a href="#">Physical Property Models to Design Better Chemical Products</a>
Jul 2020	<a href="#">Julia - A Fresh Approach to Technical Computing</a>
Jun 2020	<a href="#">The Next Digital Leap to AI (An Interactive Webinar)</a>
May 2020	<a href="#">Challenges and Benefits of Remote Operator Training using Cloud-Deployed High-Fidelity, First-Principles Based Standard Operator Training Simulators (SOTS)</a>
Apr 2020	<a href="#">NASEM Chemical Engineering in the 21st Century Study: Give your input!</a>
Mar 2020	<a href="#">Is Your Focus Your Magic!</a>
Feb 2020	<a href="#">DIERS data/standards in HAZOPS of two phase flow</a>
Jan 2020	<a href="#">A Brief History of Measurement</a>
Nov 2019	<a href="#">Using Thermal Imaging to Guard Industrial Facilities</a>
Oct 2019	<a href="#">Python for chemical engineers: Getting started</a>
Aug 2019	<a href="#">Reactive Chemical Hazards</a>
Jul 2019	<a href="#">Should I Py or Should I Fortran?</a>
Jun 2019	<a href="#">Design Considerations for Organic Electronic Materials and Devices</a>
May 2019	<a href="#">Why Can't You Compete Without Virtual/Augmented Reality in Your Plant</a>
Apr 2019	<a href="#">The Chemistry of Bourbon: The "spirit" of molecules</a>
Mar 2019	<a href="#">Demystifying Professional Engineering Licensure and How to Put it to Work for you</a>
Feb 2019	<a href="#">Municipal Wastewater and Sludge Are a Resource, Not a Waste: Coping with Tightening Water Supplies and Limited Landfill Availability</a>

## AIChE News

The AIChE hosts technical conferences around the world. Check [www.aiche.org/conferences](http://www.aiche.org/conferences) for registration and presentation information for this year's events.

Dates	Event
Oct 12	Achieving Repeatable Golden Batch Outcomes
Oct 12	Significance of Management of Change for Effective Risk- Based Process Safety Implementation Workshop
Oct 13 – 14	2021 Virtual European Conference on Process Safety and Big Data
Oct 14 – 15	2021 International Chemical Ventures Conference
Oct 18 – 20	6 <sup>th</sup> Bioengineering & Translational Medicine Conference
Oct 19 – 20	3 <sup>rd</sup> Engineering Cosmetics and Consumer Products Conference
Oct 20 – 21	2021 Bayer Sponsored Virtual CCPS Faculty Workshop
Oct 20	Liquid Crystal Elastomers
Oct 20	Carbon Capture, Transport and Sequestration
Oct 24 – 26	3 <sup>rd</sup> CCPS Middle East Process Safety Conference
Oct 25 – 27	4 <sup>th</sup> Space Travel: Adaptive Research and Technologies from Biological and Chemical Engineering (STAR Tech 2021)
Oct 25 – 27	3 <sup>rd</sup> AfroBiotech Conference
Oct 26	RAPID Technology Showcase Featuring Dioxide Materials
Oct 27	RAPID Success Stories: Lessons Learned in Developing Plant-Based Surfactants
Oct 28	Simulating the Hydrogen Transition
Nov 2 – 4	3 <sup>rd</sup> Global Symposium on Waste Plastic
Nov 3 – 5	4 <sup>th</sup> International Conference on Microbiome Engineering(ICME)
Nov 3 – 5	2 <sup>nd</sup> Latin American Virtual Conference on Process Safety
Nov 3	How Grab Sampling can Help Improve your Plant's Safety
Nov 4 – 6	5 <sup>th</sup> International Conference on Epigenetics and Bioengineering(EpiBio)
Nov 5 – 14	2021 AIChE Annual Student Conference
Nov 7 – 19	2021 AIChE Annual Meeting
Nov 8 – 16	RAPID@2021 Annual
Nov 9 – 11	2021 Ammonia Energy Conference
Nov 10 – 11	November 2021 TSC Meeting
Nov 14	Chevron Sponsored Virtual CCPS Process Safety Faculty Workshop
Nov 14 – 15	2021 AIChE K-STEM Showcase
Nov 15 – 17	5 <sup>th</sup> International Conference on Plant Synthetic Biology, Bioengineering and Biotechnology
Nov 17 – 19	Global Polymers and Textiles Conference
Nov 17	2021 CCPS Europe Regional Meeting
Nov 30	Center for Hydrogen Safety Asia – Pacific Conference

## We're in this Together

The ongoing COVID-19 situation has provided us with a reminder that even in uncertain times, AIChE is a diverse community of people who lead, create, inspire and learn—together. AIChE is here to help. Knowing that many of our members are working virtually, AIChE has created this page to act as a hub for online content, access to communities, and communication updates. [Learn more.](#)

## The Virtual Local Section's Executive Committee

### Officers

Chair:	<a href="#">Paul Adamson</a>
Senior Vice Chair:	<a href="#">Steve Treese</a>
Vice Chair:	Vacant
Immediate Past Chair:	<a href="#">Dan Lambert</a>
Secretary:	<a href="#">Laura Gimpelson</a>
Treasurer:	<a href="#">Jennifer Brand</a>

### Directors

Member Care	<a href="#">Fred Fischl</a>
Publicity	<a href="#">Paul Wissmann</a>
Newsletter	<a href="#">Mario Arredondo</a>
Programming	<a href="#">Scott Clarke</a>
Member Feedback	<a href="#">Kirsten Rosselot</a>
	<a href="#">Richard Evans</a>

## Did You Know?

You can visit [the VLS website](#) for more information on the Virtual Local Section's mission, activities, and membership. Also at this website, AIChE student members and VLS members can watch previous webinars for free.

## Subscription Information

Current fully paid members of the Virtual Local Section receive this newsletter. If you wish to update your email address, contact the AIChE's New York Office for Permanent Address Corrections at [xpress@aiche.org](mailto:xpress@aiche.org) or 1-800-242-4363.

## Continuing Education Credits

Members of AIChE can receive 1 hour of continuing education/professional development credit for attending Virtual Local Section webinars. Send your name, the certificate number on your professional engineer's license, and the licensing entity (state or country) in which you are licensed to our Secretary, [Laura Gimpelson](#), to receive one hour of continuing education credit for attending this meeting.