

## American Institute of Chemical Engineers Knoxville-Oak Ridge Section

For additional information, see our Facebook page: <https://www.facebook.com/AIChEKnoxOR/>.

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## January 2023 Meeting – Virtual Meeting & In-Person Meeting

Date: Thursday, January 19, 2022

Location: Famous Dave's Bar-B-Que, 208 Advantage Place, Knoxville, TN 37922 or virtually at:

<https://us02web.zoom.us/j/89123066706?pwd=L3pCaGtsQ3JIWDVTc1hSVXJKSmJpQT09>

Attending the Zoom Meeting is Free. **Please use Eventbrite to register.**

- 5:00 pm Executive Committee Meeting (All members welcome)
- 5:30 pm Social/Networking
- 6:00 pm Dinner - \$25 for members and **free** for students (Pay by cash or check onsite, or in advance using Eventbrite. **There is no charge for the program or PDH Certificate**)
- 7:00 pm Program – Heather Pridemore, Consolidated Nuclear Security, LLC, Process Engineering, *Process Engineering at Y-12, Oak Ridge, TN*

### *Process Engineering at Y-12, Oak Ridge, TN*

**Abstract** - The Y-12 National Security Complex employs many engineering disciplines with several different titles, including Process Engineers. The role of Process Engineer is used across industries and may result in a large variety of responsibilities. The presentation will cover the responsibilities of Process Engineers at Y-12 (as experienced by the author). In addition, a high-level technical discussion on electrorefining will be presented. This will include a brief discussion (e.g., literature review) on electrorefining uranium in the United States and South Korea.

(See page 2 for the continuation about the Speaker's Biography)

**Please make your reservations by noon Monday January 16.**

**Register through Eventbrite** (see page 2)

Contact Paul Taylor, (865) 898-5724,  
or Karin Grindall, (865) 974-5356  
if you need help with making an Eventbrite reservation.  
Please use Eventbrite so that we may know that you will be attending.

**Student attendance is encouraged, and your dinner is FREE.**  
**The Section will subsidize up to 15 students, including graduate students.**

## January 2023 Meeting (continued)

**Speaker Biography – Heather Pridemore**, Consolidated Nuclear Security, LLC, has 17 years of experience as a Process Engineer, including 12 years of experience in uranium operations at the Y-12 National Security Complex site. Heather’s expertise includes a variety of chemical processing operations on uranium materials in powder and solution forms. Heather is the lead Process Engineer for a critical chemical processing technology upgrade project at the Y-12 site. Heather also supports projects within the National Nuclear Security Administration Office of Defense Nuclear Nonproliferation efforts as a uranium processing technical expert. Heather holds a B.S. and M.S. in Chemical Engineering from Tennessee Technological University. Heather enjoys trying new restaurants and traveling.



Image Source and Credit: Heather Pridemore

## Eventbrite Registration and Payment Options

Please make your reservations by Noon Monday January 16

You are encouraged to use Eventbrite to register for our monthly section meetings. We would like to have a meeting room big enough to seat everyone. We would also like to know who is on our Zoom call. We can send a PDH Certificate to your email address. Eventbrite is easy to use and requires no subscription or installation of software. You can select the type of participation you are planning, such as in-person presentation only, in-person presentation with meal, a **student** with an in-person presentation and **free meal**, and a virtual presentation. In addition, the application allows attendees to pay by credit card. If you use the electronic payment option, the cost for the meal at the meeting will be \$28.16. If you elect not to use the electronic payment option, you may pay \$25 for the meal at the door by cash or check.

**The link to register for January Meeting:** <https://www.eventbrite.com/e/process-engineering-at-y-12-oak-ridge-tn-tickets-501323601387>

Options for registration are:

- |   |         |
|---|---------|
| ○ In-Person Presentation Only                                       | FREE    |
| ○ In-Person Presentation and Meal (Student)                         | FREE    |
| ○ In-Person Presentation and Meal (\$25 at door)                    | \$25    |
| ○ In-Person Presentation and Meal (\$25 + \$3.16 online processing) | \$28.16 |
| ○ Virtual Presentation  | FREE    |
| ○ Professional Development Hour (PDH) Certificate                   | FREE    |

If you have any questions or suggestions on the use of Eventbrite, please contact Kyle Mack at (423) 747-7947 or [kylematthewmack@gmail.com](mailto:kylematthewmack@gmail.com).

## Student Poster Presentation at the January 2023 Meeting

There will be no student poster presentation for the January 2023 meeting.

## Zoom Link & Location for the January 2023 Meeting

Famous Dave's Bar-B-Que, 208 Advantage PI, Knoxville, TN 37922  
AIChE Zoom Meeting, Thursday, January 19, 2023, 5:00 pm - 8:00 pm (US/Eastern)

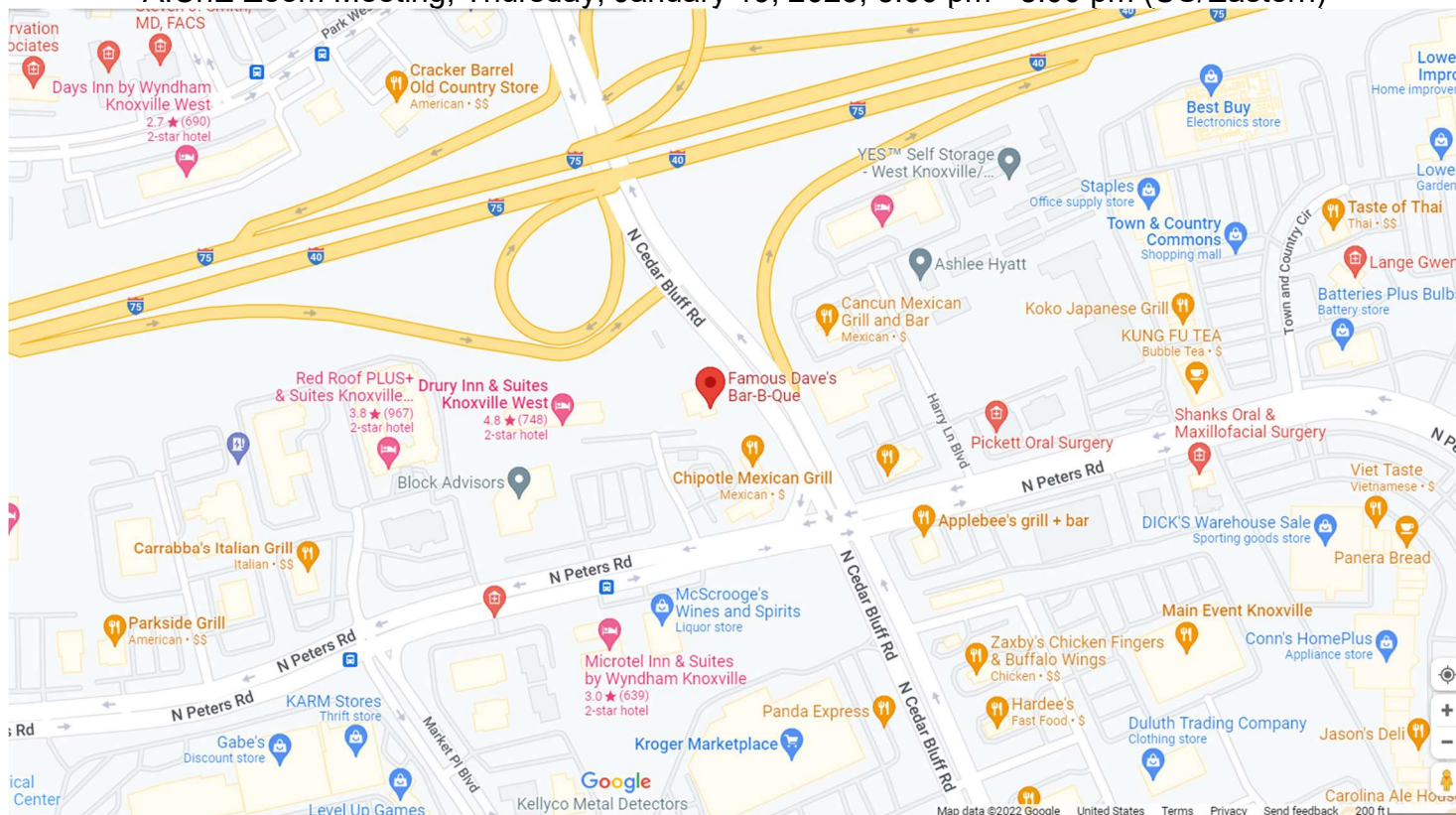


Image source and credit: Google Maps <https://www.google.com/maps/place/Famous+Dave's+Bar-B-Que/@35.9164084,-84.090732,17z/data=!4m5!3m4!1s0x885c256f458b09cf:0xa44916d3c37e484!8m2!3d35.91625714d-84.089841?hl=en>

To Join the Zoom Meeting:

<https://us02web.zoom.us/j/89123066706?pwd=L3pCaGsQ3JIWDVTc1hSVXJKSmJpQT09>

Meeting ID: 891 2306 6706, Passcode: 229271

One tap mobile

+13017158592,,89123066706#,,,,\*229271# US (Washington D.C)  
+13126266799,,89123066706#,,,,\*229271# US (Chicago)

Dial by your location

+1 301 715 8592 US (Washington D.C)  
+1 312 626 6799 US (Chicago)  
+1 929 205 6099 US (New York)  
+1 253 215 8782 US (Tacoma)  
+1 346 248 7799 US (Houston)  
+1 669 900 6833 US (San Jose)

Find your local number: <https://us02web.zoom.us/u/kdphU5u1rW>

# **AIChE Knoxville – Oak Ridge Local Section 2023 Officer Elections**

The AIChE KOR will hold 2023 Officers’ elections until January 31, 2023. This page is your ballot. Please send your ballots on or before January 31, 2023, to: [paultaylorornl@gmail.com](mailto:paultaylorornl@gmail.com) or vote in person at the January 19, 2023, meeting. **The voting qualification is having paid the AIChE KOR Local Section 2023 Dues.**

## **Officer Elections**



### **Ballot - AIChE Knoxville-Oak Ridge 2023 Officers**

**Chair** – Kaara Patton  
(Automatic succession)

Image Source and Credit: [aiche.org](http://aiche.org)

**Chair-Elect** (Select one)

Lindsey Stinson (3-year term, 2023 Chair Elect, 2024 Chair, 2025 Past Chair/Director)  
 Write in \_\_\_\_\_

**Secretary** (Select one)

Tara Davis (1-year term)  
 Write in \_\_\_\_\_

**Treasurer** (Select one)

Paul Taylor (1-year term)  
 Write in \_\_\_\_\_

**Director** (Select two)

Mary Krempasky (2-year term, 2023 – 2024)  
 Maya Wittman (2-year term, 2023 – 2024)  
 Write in \_\_\_\_\_



Image source and credit: [Election and Voting Information - Topeka & Shawnee County Public Library \(tsctl.org\)](http://Election and Voting Information - Topeka & Shawnee County Public Library (tsctl.org))

### **Chair Elect - Lindsey Stinson**

Lindsey Stinson is a 1996 graduate of The University of Tennessee with 20 twenty years of experience in engineering. He has worked in the Oil/Gas, Pharmaceutical/Medical Device, Manufacturing and Government Nuclear industry. His experience in the Oil/Gas industry ranges from Offshore platform design to Onshore Gas well design drawings. His experience in the Pharmaceutical/Medical Device ranges from transdermal patch manufacturing validation to X-Ray film and Clean-In-Place systems. His experience in the Manufacturing industry ranges from tablet manufacturing to polymers. Lindsey has been working the past 9 years on the UPF project and 4.5 years working at Y-12. He has been married to his beautiful wife for 24 years and has a wonderful 17-year-old daughter. He enjoys fishing in his spare time.



## AIChE KOR Elections for 2023 Officers (Continued)

### Secretary - Tara Davis

Tara Davis grew up in Knoxville, Tennessee. She graduated from Tennessee Tech with her B.S. in May 2019. While in school, she interned at ORNL for three summers where she worked on projects involving reactive gases. After receiving her bachelor's degree, Tara joined ORNL where she continues to work with reactive gases. Outside of work she likes to help on the family farm, cook, and rescue orphaned animals.

### Treasurer - Paul Taylor, P.E.

Paul Taylor was a senior development engineer in the Isotope and Fuel Cycle Technology Division at Oak Ridge National Laboratory until retiring in September 2020. He returned to ORNL in February 2022 as a part-time casual employee. He has been the membership chairman of the local section for many years, and has previously served as Chair, Treasurer, and Director of the local Section. Paul was awarded the Robert E. Wilson award by the Nuclear Division of AIChE in 2019 and was also named a Fellow. Paul is a registered professional engineer and is a member of the National Society of Professional Engineers in addition to AIChE.

### Director - Mary Krempasky

Mary Scott Krempasky is a native of Oak Ridge. She received her B. S. in Chemical Engineering from UT Knoxville (also participating in the co-op program at ORNL). Her first engineering position was in a food plant with Procter and Gamble in Jackson, TN. She then returned to ORNL and served in the Process Engineering group of what was then LMES Central Engineering. While in Process Engineering, she was able to provide design and project coordination on a variety of projects at ORNL, Y-12, and ORGDP (K-25). She obtained her PE license in chemical engineering in 1996. She took a 15-year parental sabbatical, which was spent in Pennsylvania and Ohio. Upon returning to Tennessee in 2012, Krempasky joined the Uranium Processing Facility (UPF) project as a subcontractor in the Process Engineering group. She transferred to CNS at Y-12 in late 2017, where she has served for four years in the Facility Safety Engineering group. Her hobbies include traveling, theatre, swimming, scrapbooking, and church activities.

### Director - Maya Wittman

Maya Wittman attended Rutgers University where she got her bachelor's degree in Chemical Engineering and a minor in Psychology. While in school, Maya completed internships as a research assistant at the Rutgers Chemical & Biochemical Engineering department, a research and development intern at Colgate Palmolive, and a product development intern at The Hershey Company. She began her professional career with Bechtel as a process engineer on the Uranium Processing Facility project in 2016. She became a licensed PE in 2021. Since January 2022 she has been working for Y-12 as a process design engineer. She lives in West Knoxville with her fiancé and cat.

Image Source and Credit: [umc.org](http://umc.org)



## American Chemical Society East Tennessee Local Section

The American Chemical Society East Tennessee Local Section has opportunities for professional technical presentations including the S. C. Lind Lecture Series.

Please visit their website for more information.

[American Chemical Society East Tennessee Local Section](#)



Image Source and Credit: American Chemical Society East Tennessee Local Section

## Tennessee Society of Professional Engineers, Knoxville Chapter

The Tennessee Society of Professional Engineers, Knoxville Chapter holds monthly meetings with a variety of speakers.

The next TSPE Knoxville chapter meeting is on Wednesday, January 25, 2023, 11:30am – 1:00pm, Bearden Banquet Hall, 5806 Kingston Pike, Knoxville, TN 37919, USA, Speaker: TBD.

The TSPE Knoxville website to learn the January 25, 2023 meeting speaker is:

<https://sites.google.com/site/knoxtspe/>

A link to the next meeting can be requested by emailing [knoxtspe@gmail.com](mailto:knoxtspe@gmail.com)

TSPE Knoxville offers PDH certificates for meeting attendance at a cost of \$10 for nonmembers.



Image Source and Credit: Tennessee Society of Professional Engineers, Knoxville Chapter

## Tennessee Stage Company New Play Festival



### Amazing Graces

The Grace cousins are spending a weekend in the mountains to celebrate their grandmother's birthday. Family times reignite old memories - some good, some not so good. As the cousins struggle to work through their issues something unexpected happens that will change everything.

**This play contains adult language and content.**

Amazing Graces is written by local playwright, Lea McMahan, and is produced by Tennessee Stage Company (TSC) as part of their New Play Festival. Performances will be at Knoxville Theatre Downtown, located at 800 South Central St., Knoxville. Seating is not reserved.

Performance dates/times will be:

- January 27-29 (Friday-Sunday),
- February 2-5 (Thursday-Sunday), and
- February 9-12 (Thursday-Sunday).

Sunday performances are matinees at 2:00 p.m.  
All other performances are at 8:00 p.m.






Images Source and Credit: [Tennessee Stage Company](https://www.facebook.com/TNStageCo)

For more information, contact TSC at: <https://www.facebook.com/TNStageCo>, (865) 546-4280.



# VOLUNTEERS' CORNER

*Engineers making a difference in our community*

<i>Date</i>	<i>Event</i>
Anytime	<p><b>Junior Achievement</b> Interested in teaching Math or Science to a Middle/High Schooler? Visit the Junior Achievement site at: <a href="http://www.jaeasttennessee.org/">http://www.jaeasttennessee.org/</a>.</p>
Anytime	<p><b>AIChE Young Professionals Committee</b> We sponsor a competition for our collegiate student chapters, the <a href="#">Global Undergraduate Student Video Competition</a>. This competition requires chapters to create a video about a relevant chemical engineering subject that will be shown to high school students to teach them about that topic, and ultimately encourage them to study chemical engineering.</p>
Anytime	 <p><b>AIChE Academy</b> AIChE Academy can deliver chemical engineering educational resources to help Chemical Engineering professionals connect, learn, and solve pressing challenges. Visit <a href="http://www.aiche.org/academy">www.aiche.org/academy</a> and see what AIChE Academy has to offer.</p>
Anytime	<p><b>Engineer's Without Borders</b> – <a href="http://www.ewb-usa.org">http://www.ewb-usa.org</a></p>
Anytime	<p><b>AIChE K-OR section needs help</b> with:</p> <ul style="list-style-type: none"> <li>• <a href="#">Social Media Committee</a> – The local section desires to improve our presence on various social media outlets, such as: Facebook™, Twitter™, LinkedIn™, and YouTube™.</li> <li>• <a href="#">Young Professionals Committee</a> – The local section desires to establish a Young Professional's Group to increase participation and interactions with young chemical engineers within the East Tennessee region.</li> </ul> <p><b>Monthly Newsletter</b> - Submit an Article, Editor-At-Large</p>
Anytime	 <p><b>Tennessee Promise</b> is a game changer for our state. Working with students who until now did not believe college was a possibility for them is amazing. This program is changing lives and improving our state.</p> <p>If you have not yet registered to mentor with the Class of 2021 and would like to do so, please visit <a href="https://tnachieves.org/mentors/requirements/">https://tnachieves.org/mentors/requirements/</a> to do so today!</p>
Anytime	 <p>Founded in 1992, <b>Habitat for Humanity of Anderson County</b> is an ecumenical ministry that builds simple, decent and affordable houses with participating families; working with diverse individuals, organizations, and faith communities to serve others. <a href="http://www.hfhac.org">http://www.hfhac.org</a></p>




<p>Anytime</p> 	<p><b>National Council of Examiners for Engineering and Surveying needs reviewers for PE Chemical Handbook</b></p> <p>The NCEES (National Council of Examiners for Engineering and Surveying) has requested that practicing engineers assist in reviewing the PE Chemical Handbook for possible errors and omissions. In January 2017, <a href="#">NCEES</a> published a draft of the PE Chemical Handbook to provide reference information for engineers taking the <a href="#">Chemical Principles and Practice of Engineering (PE) Exam</a>. NCEES is an organization that develops and administers the examinations for Professional Engineering licensure. When the professional license exam is converted to a computer-based test in the near future, the handbook will be the only reference available to the examinees and will be loaded online. The handbook may be downloaded by both practicing engineers to use as a reference and by prospective examinees as a study guide. To enroll in the review process and obtain a copy of the draft handbook, you may connect to the following AIChE website: <a href="http://www.aiche.org/resources/careers/professional-engineering-licensure/pe-handbook-provide-input">http://www.aiche.org/resources/careers/professional-engineering-licensure/pe-handbook-provide-input</a>. The AIChE website will provide directions for connecting to the NCEES site. If you have any questions, please contact Joe Cramer: <a href="mailto:josec@aiche.org">josec@aiche.org</a>.</p>
January	
February 18, 2023	<p>2022 <b>Boy Scouts Merit Badge College</b>, Roane State Community College. See <a href="https://www.roanestate.edu/?6724-Merit-Badge-College-MBC">https://www.roanestate.edu/?6724-Merit-Badge-College-MBC</a> for information. Contact Paul Taylor (865-898-5724, <a href="mailto:paultaylorornl@gmail.com">paultaylorornl@gmail.com</a>) if you are interested in helping with the Chemistry merit badge.</p>
February 2023	<p>The 2023 <b>Tennessee Science Bowl</b> The Tennessee Science Bowl (TSB) has grown to be the largest Department of Energy high school regional science bowl in the nation! <a href="http://www.orau.gov/sciencebowl/">http://www.orau.gov/sciencebowl/</a></p>
March 2023	<p><b>TN FIRST Robotics</b>, See <a href="http://firstinspires.org/robotics/frc">firstinspires.org/robotics/frc</a></p>
March 28-30, 2023	<p>The 2023 <b>Southern Appalachian Science and Engineering Fair, SASEF</b>. See <a href="https://sasef.utk.edu/">https://sasef.utk.edu/</a> for information. Contact Paul Taylor (865-898-5724, <a href="mailto:paultaylorornl@gmail.com">paultaylorornl@gmail.com</a>) if you are interested in helping with the AIChE special award judging.</p>
May	
June	
July	<p><b>Volkswagen-Sponsored Camp Introduces Students to UT, Engineering VOLunteers for Tenth Graders</b></p>
August	<p><b>AIChE KOR Planning Meeting</b> for the upcoming academic year needs ideas and help planning speakers and arranging meeting locations. All members are welcome to participate and provide ideas.</p>
September	
October 14-23, 2022	<p>The <b>Tennessee STEAM</b> (Science, Technology, Engineering, Art, and Math) Festival is held in October at events across the state. A complete listing of activities and locations is available at <a href="https://www.tnsteam.org/all-events">https://www.tnsteam.org/all-events</a>.</p>
November	
December	

Image Source Credits are the Associated Websites Listed in VOLUNTEERS' CORNER

Do you know of other volunteer opportunities for section members? Please pass the information on to any section officer so it may be communicated in the next newsletter.



Image Source and Credit: [https://lakeharriet.mpls.k12.mn.us/volunteers\\_needed\\_8](https://lakeharriet.mpls.k12.mn.us/volunteers_needed_8)

# Mark your calendar with dates for this year's meetings!

Date	Time	Topic	Speaker	Location
Jan 19, 2023	5:00 PM	Process Engineering at Y-12	Heather Pridemore, Consolidated Nuclear Security, LLC	Famous Dave's
Feb 16	5:00 PM	The Uranium Science and Technology Center - Joint with ANS	Jason Richards, ORNL	Famous Dave's
Mar 12 - 16		2023 AIChE Spring Meeting and 19th Global Congress on Process Safety		<a href="#">Hilton of the Americas, George R. Brown Convention Center</a>
Mar 23	TBD	TVA Plant Tour	TBD	TBD
Apr 6	TBD	TBD	TBD	TBD

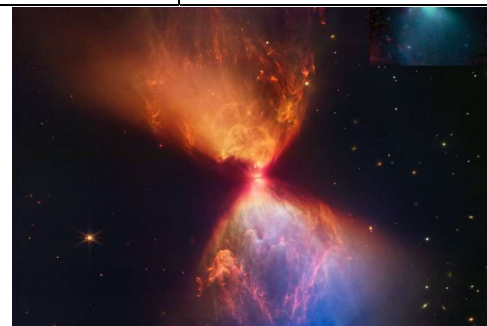


Image Source and Credit: [phys.org](https://www.phys.org)

## Sponsoring Opportunities

We continue to accept advertising in the newsletter in order to provide funds to support student participation in the meetings.

Rates per newsletter are:

**\$80** full-page advertisement

**\$45** half-page advertisement

**\$25** quarter-page advertisement

The section will also continue to accept individual or corporate sponsors to provide student meals at section meetings. The sponsor

will be recognized at the meeting and in the Newsletter.

The cost to sponsor one meeting is **\$200**. It's a great way to encourage students to attend the local meetings and become future members in the Institute!

*“Once we accept our limits, we go beyond them.”*

*Albert Einstein*

## Officers

<b>Chair:</b>	Kaara Patton	(865) 574-1642	<a href="mailto:pattonkk@ornl.gov">pattonkk@ornl.gov</a>
<b>Chair-Elect:</b>			
<b>Secretary:</b>			
<b>Treasurer:</b>			
<b>Directors:</b>			
<b>Term 2023</b>	Kyle Mack	(423) 747-7947	<a href="mailto:kylematthewmack@gmail.com">kylematthewmack@gmail.com</a>
<b>Term 2022-2023</b>	Mark Swientoniewski	(865) 574-1150	<a href="mailto:mswientoniewski@stratag.org">mswientoniewski@stratag.org</a>
<b>Term 2022-2023</b>	Nathan Bryant	(423) 557-7308	<a href="mailto:nbryant3@vols.utk.edu">nbryant3@vols.utk.edu</a>
<b>Term 2023-2024</b>			
<b>Term 2023-2024</b>			
<b>Membership:</b>	Paul Taylor	(865) 898-5724	<a href="mailto:paultaylorornl@gmail.com">paultaylorornl@gmail.com</a>
<b>Newsletter Ed.</b>	Mark Swientoniewski	(865) 574-1150	<a href="mailto:mswientoniewski@stratag.org">mswientoniewski@stratag.org</a>
<b>E-mail:</b>			<a href="mailto:aiche-chat@chem.engr.utk.edu">aiche-chat@chem.engr.utk.edu</a>
<b>Website</b>			<a href="https://www.aiche.org/community/sites/local-sections/knoxville-oak-ridge">https://www.aiche.org/community/sites/local-sections/knoxville-oak-ridge</a>

## Knoxville - Oak Ridge Section

P.O. Box 2008  
Bldg. 4501, Room 209  
Oak Ridge, TN 37831-6243

Phone: (865) 898-5724

E-Mail: [aiche-  
chat@chem.engr.utk.edu](mailto:aiche-chat@chem.engr.utk.edu)



We're on the Web!

See us at:

<https://www.aiche.org/community/sites/local-sections/knoxville-oak-ridge>

Editor: Mark  
Swintoniewski, PE

## *About Our Organization... 2023 AIChE Spring Meeting and 19th Global Congress on Process Safety*

March 12, 2023, to March 16, 2023

[Hilton of the Americas, George R. Brown Convention Center](#)

The AIChE Spring Meeting and Global Congress on Process Safety is the year's key technical conference for practicing chemical and process safety engineers, covering the industry's critical needs more broadly and deeply than any other conference.

(Source: American Institute of Chemical Engineers <https://www.aiche.org/conferences/aiche-spring-meeting-and-global-congress-on-process-safety/2023>)

**AIChE**   
The Global Home of Chemical Engineers

**SPRING23  
+19<sup>TH</sup> GCPS**  
A Joint AIChE and CCPS Meeting

P.O. BOX 2008  
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OAK RIDGE, TN 37831-6243