WHEN I BEGAN DRAFTING THIS,

It started with the sort of ‘typical’ things someone might say in this position: “It was an honor to receive the gavel from Helen Cerra at the recent Annual Conference…I am looking forward to serving as your President for the next two years…etc., etc.” All these statements were (and still are) true, but they seem a bit trivial considering the state of life around the world today. In the last few months, the spread of novel coronavirus has grown from an already serious but somewhat localized event into a full-blown global pandemic. Lives have been lost to the virus throughout the world - and first and foremost, my personal sympathy and that of the CTI goes out to anyone who has lost a friend or loved one – while medical resources are taxed to their limits in many places, people are being confined to their homes, jobs are being impacted, and uncertainty seems to grip all facets of life. This is truly an unprecedented event.

The CTI has not remained unaffected. Many of you already received communication from our Administrator, Vicky Manser, that the CTI office in Houston will be remote through May. We will continue to do everything we can to maintain normative operations during that time, but we ask for your patience. We will continue to monitor the situation and work with our Board of Directors to make further decisions or changes to operations and events as things develop. As Vicky pointed out in her announcement, though, the CTI is “a people first organization,” and our first and foremost concern is and will always be the safety and health of people.

And really, it is because of the people who make up the CTI that I am not worried about the long-term implications of this pandemic to the organization. As we celebrated at the recent Annual Conference in Houston, in 1950 the Cooling Tower Institute was formed as essentially a small group of dedicated people, a truck, and small trailer full of test equipment. The efforts of countless people over seventy years have grown that group into the Cooling Technology Institute of today: an international organization impacting the cooling technology industry literally around the globe. At its core, though, CTI is still people: people who donate their time to educate others, develop Codes and Standards, test cooling equipment, and help manage the CTI’s successful and important Certification programs. I can’t honestly say that I know every member well, but I know enough of you well enough to have no doubt that these things will continue during this uncertain time. They may be slowed in the short term or look a bit different for a season, but as it has for the last seventy years, the CTI will carry on because of the people who are CTI. Thank you for being those people, and please stay safe.

Chris Lazenby

THIS ISSUE:

VIRTUAL COMMITTEE WORKSHOP

Annual Conference 2021, 2020 Board of Directors, Committee Updates, Tabletop Exhibits, Future Meeting Dates, News From the CTI Office, and more!
The CTI Board of Directors is comprised of a selection of nine board members elected by the voting delegates of CTI and one President of the Board elected by the Board of Directors from its previous members. Board members represent the main groups of CTI: Manufacturers, Owner/Operators, and Suppliers and serve three year terms with the President of the Board serving a two year term.

Three members of the Board of Directors retire each year and are replaced by three new members allowing for a constant rotation of new members.
A CTI CONFERENCE FROM ANYWHERE ON YOUR TIME

CLASS OF 2020

JENNIFER HAMILTON
EVAPCO, INC.

Jennifer Hamilton is the Vice President of HVAC Product Development at Evapco, Inc. where she manages the design, testing, and rating of factory assembled cooling towers and closed-circuit coolers. She has been a part of the cooling tower industry since 2005 with experience in both Applications Engineering and Product Development.

JON BICKFORD
ALLIANT ENERGY

Jon Bickford joined Alliant Energy in 1979. He has been in charge of the two cooling towers at the Ottumwa Generating Station for the past 20 years, and in 2007 put together a scope of work with the specification for the re-ringing of both cooling towers. For the past 28 years the Ottumwa Generating Station has been considered one of the most efficient plants in the United States attributed both to its low operating cost and minimal personnel.

JOHN ZIBRIDA
ZIBEX, INC.

John Zibrida is the President of ZIBEX, Inc. He has been a member of CTI for over 30 years and has over 40 years in the chemical and environmental industries. John has authored papers at NACE International and AWT, and chaired the Water Treatment committee of CTI. He holds a Bachelor of Chemistry from FSU and an MBA from Emory University. He studied Chemical Engineering at University of South Florida and Colorado School of Mines.

THE VIRTUAL COMMITTEE WORKSHOP
CTI.ORG
ANNUAL CONFERENCE: RECAP

This year’s Annual Conference was a great success. Featuring speakers from around the world, the conference offered four full days of unparalleled opportunities for education and innovation, two of CTI’s most prominent hallmarks. Here is a look at some of this year’s presenters, speakers, and seminar attendees:

SPEAKERS

Frank Feng (Metrix), Mark Williams (Walter P. Moore & Associates), Nicola Romano (Cofimco), Christophe Vanscheepdael (Engie Laborelec)

Jim Baker (Galebreaker), Bill Childers (Aggreko), Frank Michell (Consultant), Mark Reed (Buckman)

Greg Simpson (Pureline), Sean Chein (Solenis), Dave Wheeler (Clean Air Technologies), Prasad Halakodimi (ChemTreat, Inc.)

Bob Cunningham (IWC), Vincent Ganzitii (Hamon), Jan Soukup (Reko), Justin Shim (Justeq)

Lorraine Huchler (MarTech), David Whitmore (Vector Corrosion), Paul Frail (Suez Water), Phils Kiser (CTI Program Chair)

SEMINARS

EDUCATIONAL SEMINAR

Jean-Pierre Libert (Evapco), Don Dobney (EvapTech), Frank Morrison (Baltimore Aircoil), Paul Quigley (Kiewit), Andjelko Piskuric (Enexio), Doug Randall (SPX), Loraine Huchler (MarTech), Austin Bishop (Kiewit)

ASK-THE-EXPERT Q&A

Jim Baker (Galebreaker), Bob Cunningham (IWC), Frank Michell (Consultant), Brian Nelson (Southern Company), Joe Evans (SPX), John Zibrida (ZIBEX), Nick Mascarenhas (Baltimore Aircoil)
MEET THE COMMITTEES

ES&M:
James Blake, American Lightning Protection Systems, Inc.
Nina Woicke, Enexio Water Technologies GmbH
John Ahern, EvapTech, Inc.
Bill Howard, Cooling Tower Depot

P&T:
Scott Nevins, Evapco, Inc.
Jared Medlen, Mesa Associates
Hussnain Yaser, Baltimore Aircoil Company

WATER TREATING:
Charles Kuhfeldt, CauseWay Water Consulting and Services, LLC
Dwight Emerich, Solenis, LLC
FROM THE COMMITTEES: ENGINEERING STANDARDS AND MAINTENANCE

Chair - James Blake, American Lightning  
Vice Chair - Nina Woicke, Enexio  
Vice Chair - Bill Howard, Cooling Tower Depot  
Vice Chair - John Ahern, EvapTech  
AdHoc Coordinator - Jon Bickford, Alliant Energy

Committee Report: February 9-12, 2020

I. February 2020 Meeting  
II. Minutes for Summer 2019 ES&M were accepted  
III. Lead Task Group Chair Reports

Wood, Metal, and Concrete Materials Task Group [Bill Howard]

- STD-112 Pressure Preservative Treatment of Lumber, BOD approved.

(a suggested revision to clarify incising was made)

- ESG-166 Recommended Guidelines for Fire Partitions - Tom Kline, In work. Draft was reviewed. Comments will be incorporated again.
- The various wood and plywood standards (103, 114, 119, and 134) are due to be reviewed, and volunteers are needed. A comparison to the latest NDS and PS-1 will be made. Shane Schmidt

Mechanical and Electrical Task Group [Craig Burris]

- Chapter 11 - Electrical Components, James Blake - In work. Getting outside electrical contractor involved on several items.
- Chapter 10 Mechanical Components, Craig Burris - In work, good progress to on a rough draft. Hope to go to AdHoc by July.
- ESG-151 VFD Application Guidelines, Craig Burris - To BOD for approval.

FRP and Plastics Task Group [Jamie Bland]

- STD-137 Fiberglass Pultruded Structural Products, Ken Mortensen, Bhryav Mutnuri - Approved by BOD.
- Material Certification for pultrusions. Discussion was held. Revisions in work to include fire retardancy testing and an updated audit process.
- STD-136 Thermoplastic Material for Fill, Chris Bowman and Ken Mortensen - Finalizing HDPE Mechanical Properties and then to ADHOC.
- ESG-152 Structural Design for FRP Components - Tom Toth, Rewrite of the moisture/temp/immersion table section. Close to vote and then to AdHoc.
- ESG-164 on Thermoplastic Fill, Nina Woicke - The document is in major rework. Document will be made into three parts, Mechanical, Fire, and UV. This particular document will be eventually replaced with 170, 171, and 172.

- STD-170 UV Testing - Fill, Nina Woicke - In work on protocol for testing.
- STD-171 Mechanical Testing - Fill, Nina Woicke - In work on protocol. Looking for input on hanging and splash bar testing methods.
- Information, R Seismic Factor, Bill Howard, Tom Toth - Update on the status of the new LRFD code. Looking into test facilities for shake table and getting Jim Harris to Steamboat next July. Need to evaluate where the approx. $500,000+ will come from and if we want to pursue.
- New FRP Life Extension - A discussion was held and it was decided to work on coating research. It was suggested that Sherwin Williams has an acrylic sealer that has been used successfully.
- STD-124 Fan Stack Material Standard, Tom Toth - In review. The discussion included work on defining what is an acceptable crack.

Tower Operations Task Group [Phillip Poll]

- Chapter 1, Cooling Tower Operations, Dave Staat and Brian Lesniak - This document is in review and requires a major rework. An outline has been created.
- ESG-138 Long-term Storage of Cooling Towers, John Ahern - Reviewed and revised. Will be circulated to the group members for final comments. Close to finalization.
- Chapter 13 Inspection of Cooling Towers, Dave Staat, Ethan Chestnut - Sections are being added and reviewed. Good progress. Over 40 in attendance. New voting members were chosen. A table will be added to help owner/operators identify symptoms.

Hazard & Environmental Protection Systems Task Group [James Blake]

- GDL-159 Legionella, Ken Mortensen and others - BOD approval.
- ESG-162 Cleaning Cooling Towers, Phillip Poll and Ken Mortensen - Worked with WT in the summer but still more work to do.
- ESG-121 Construction Safety, Philip Poll and Ethan Chestnut - In work. No meeting held.
- Field Erection - Tom Toth, Ken Pate - General discussion held. Comments were added. More work required.

Old Business  
New Business

I. Adjournment
FROM THE COMMITTEES: WATER TREATING

Chair - Charles Kuhfeldt, CauseWay Water Consulting
Vice Chair - Dwight Emerich, Solenis LLC
Secretary - Brian Corbin, Dow Microbial Control

Committee Report: February 9-12, 2020

TASK GROUP UPDATES FINAL:

WTG-126, Application of Non-Oxidizing Biocides, Brian Corbin (Chair), Dwight Emerich (Vice-Chair). This is a new document that underwent further review at this meeting. The task group decided to expand the introduction to include a statement on biocide application, treatment limits and discharge requirements. The scope was also updated to better reflect the current working document. Work will continue at the 2020 CTI Summer Workshop.

WTG-130B, Deposit Monitoring, Robert Cunningham (Chair), Dwight Emerich (Vice-Chair). Matt Wangerin completed editing the document, but we decided to send it for further review/input from Nalco and Suez. Hopefully the document will be ready for Ad Hoc review after the 2020 CTI Summer Workshop.

WTG-142, Galvanized/White Rust, John Zibrida (Chair), Dwight Emerich (Vice-Chair). This is the five-year review. The document final editing has been approved and will be going to Ad Hoc review after the 2020 Winter meeting.

WTG-155, Internal Plant Cooling Water Reuse, Tom Mastbaum (Chair), Bob Cunningham (Vice-Chair). Jim Kanuth, Ray Post, and Bob Cunningham completed significant updates to the document including additional references. Work will continue at the 2020 CTI Summer Workshop.

WTG-161, Best Practices for Cooling Water Treatment, Jack Bland (Chair), Open (Vice-Chair). The Subcommittee hosted the Cooling Water Panel discussion this year that included owner/operators input on the subject. It is a complex subject and will require much additional work. The goal is to develop a document using the format in the ASME Boiler Water Guidelines document. Work will continue at the 2020 CTI Summer Workshop.

WTG-168, External Water Reuse, Tom Mastbaum (Chair), Ray Post (Vice-chair). The subcommittee had a working meeting during the conference and added two new members to the team. Tom will be providing a copy of the current draft document to team members for review before a March 2020 conference call. The goal of the subcommittee is to have a final draft ready for review at the 2020 CTI Summer Workshop.

STD-149, Corrosion Testing Procedures, Matt Wangerin (Chair), Open (Vice-Chair). Matt will be updating some "poor quality" images along with some minor language edits in the document. The edits will be reviewed at the 2020 CTI Summer Workshop.

WTG-122 Water Filtration: This document is due for review. Al Feltzin (Chair), David Anton (Vice-Chair). We identified some filtration experts. Additional input for filtration experts is being pursued.

WTG-141 Application of Oxidizing Biocides: This document is going to be reviewed and edited to incorporate information about "newer oxidizing biocides" after the WTG-126 Application of Non-Oxidizing Microbiocides document is completed.

WTG-158 Physical Water Treatment Devices: The document was approved by the Board.

WTB-147 Water Reuse Papers of Interest to Water Treaters: This is a bibliography of papers which is in the category "References". It is not required to review this document. The status needs to be changed in the price list to reflect that the review is not needed.

Liaison Reports:

Chad McKnight (Southern Company): International Water Conference (IWC) was held in Orlando, Florida, on November 10th-14th. Conference was well attended, offered excellent training opportunities and covered a broad range of topics. The 2020 conference will be held in San Antonio on November 8th-12th.

Rob Ferguson (French Creek): NACE: Boiling and cooling water talks have decreased at the conference. Very large exhibition hall with many vendors in attendance. Huge emphasis on Oil & Gas but there is a section focusing on corrosion and biocides. NACE will be held in Houston from March 13th-20th.

Helen Cerra/Jon Cohen (Chemtreat): ASHRAE: Guideline 12 on Legionella was finalized and was published. New standard 514, which will build on and expand the scope of ASHRAE 188, was taken over by NSF.

Rob Ferguson (French Creek): AWT: Believed the talks were more commercial this past year rather than technical. Annual Convention and Exposition was held September 11-14, 2019, in Palm Springs, California. Conference is growing with 180 exhibitor spots this year. Conference will be held in Louisville, Kentucky, September 30th-October 3rd.

Electric Utility Chemistry Workshop (EUCW) and Southwest Chemistry Conferences were mentioned as potential conferences that may be of interest to the Power Industry.

The Committee adjourned until the 2020 CTI Summer Workshop.
FROM THE COMMITTEES: PERFORMANCE AND TECHNOLOGY

Chair - Kent Martens, SPX Cooling Technologies
Vice Chair - Jared Medlen, Mesa Associates, Inc.

Committee Report: February 9-12, 2020

1. General Notes
   A. Ten of the fourteen active task groups met during this meeting. The following active groups did not meet, but are making progress with teleconferences, and will plan to meet at the Summer Workshop:
      1. **STD-146 Water Flow Measurement** (Dave Wheeler, Chair): had teleconference to make modifications required by last year’s pitot tube change.
      2. **ATC-140 Isokinetic Drift Measurement Test Code for Water Cooling Tower** (Chris Lazenby, Chair). With Chris’s new responsibilities, the meeting time was relinquished to other task groups. Ken Hennon has been appointed as the new chairperson.
      3. **Cooling Tower Manual Chapter 2 - Intro to Thermal Design** (J.P. Libert, Chair): ongoing review.

2. Task Group Meeting Summaries
   A. **ATC-105 Thermal Performance Acceptance Test Code** (Larry Burdick, Chair)
      1. Significant revisions were finalized last year, and the document was approved by the board and published.
      2. Topics for future discussion were discussed which included:
         • Discuss make up of voting members. May need to consider some replacements and keeping balance of the membership.
         • Documentation of revision history.
         • Correcting differences between 105 and 140 regarding the allowable window for an acceptance test.
   B. **ATC-105S Test Code for Closed Circuit Coolers** (Hussnain Yaser, Chair)
      1. Appendix C was completed to define measurement uncertainty parameters in IP units. Appendix D will be created for SI units.
      2. Once complete, the revised document will be routed to the voting members.
      3. The document is expected to be ready for Ad-Hoc review soon. The goal is to have the A/H comments addressed, any changes made, and send to the board for approval by the Summer meeting.
   C. **ATC-105 Adiabatic** (Jennifer Hamilton, Chair)
      1. Significant revisions were finalized last year, and the document was approved by the board and published.
      2. Future topics to be resolved include reviewing voting members and adjusting as needed to maintain adequate diversity per CTI guidelines, and documenting revision history.

3. **ATC-128 Sound Test Code** (Larry Burdick, Chair)
   A. Significant revisions were finalized last year, and the document was approved by the board and published.
   B. Future topics to be resolved include reviewing voting members and adjusting as needed to maintain adequate diversity per CTI guidelines, and documenting revision history.
   C. **ATC-105S Adiabatic** (Jennifer Hamilton, Chair)
      1. The scope was refined to include pad systems ("wet media"), and eliminate equipment that relies on pad-less spray systems: the latter would need to be addressed in ATC-105S since cooling is evaporative on the coil, and not adiabatic cooling.
      2. Provisions to discuss testing with water over the pads, and dry capacity test performance with pads in place. ATC-105S and ATC-105DS will require revisions.
      3. Pad saturation efficiency was proposed as a required parameter.
      4. A revised version of the code will be distributed to the group with the meeting notes next week.

D. **STD-204 Sound Certification Task Force** (Doug Randall, Chair)
   1. Discussion held on appropriate methodology for calculating and reporting multi-cell sound data. Each manufacturer will send their methods of calculating this data to Mike Womack for review by March 31, 2020. Mike will review and make recommendations to the task group.
   2. Regular teleconferences are planned between this meeting and the Summer meeting.
E. **STD-202 Publication of Custom Tower Performance Test Results** (Paul Lindahl, Chair)
   1. Enexio has joined as the fourth Participating Manufacturer (PM), and was welcomed.
   2. CPA has sent data for 2019, but not all PMs and test agencies have received. Paul to follow up.
   3. Teleconference is planned for the Custom Tower Program Committee by Frank Michell.
   4. It was reported that some customers believe that the report is a “pass/fail” report, rather than just a data report. Further, some are thinking tests in the > 95% line are all 5% deficient. Discussion was held on the need to modify the report table to clarify the definition of tests that are > 95%.

F. **PFM-143 Airflow Testing** (Sander Venema, Chair)
   1. Revisions were completed to the Appendix for measurement uncertainties. Changes were approved by vote of the task group.
   2. The main text of the completely revised PFM-143 is now ready (except for some small graphic and lay-out issues) and ready for final review by the task group.
   3. One chapter of the appendices remains to be written about the influences of air inlet shape and geometry and air-flow obstructions.
   4. The final revisions are expected to be ready for hoc review before or at the summer meeting.

G. **STD-201 Certification** (Jenn Hamilton/Frank Michell, Co-Chairs; Nick Mascarhenas, Vice-Chair)
   1. Proposal and discussion on dry performance certification to be part of ATC-201 program, as opposed to creating a new certification program which would create redundancy. Jennifer will review OM document to determine what changes would need to be made.
   2. Factory audit task group meeting will be set up in the next two weeks to discuss when audits are recommended, cost, frequency, locations, etc.
   3. Appendix H to be added to define calibration requirements. Discussion was held on whether it is appropriate to put into the RS or OM document. It was mentioned that any reference to CTI-owned equipment must be in the OM document, not RS. Further review is required to resolve.

H. **ATC-150 Plume Abatement Test Code** (Jared Medlen, Chair)
   1. Revised definitions of Level 1 and Level 2 plumes to clarify confusion about the current definitions. Proposed revisions will eliminate plume visibility language, and use more objective psychrometric properties.
   2. Added language to allow night-time testing, providing other conditions of the code are met, and the test can be safely conducted.
   3. Adjusted the number of sampling points to vary depending on fan diameter.
   4. Discussed accuracy requirements for measurement devices.
   5. A sub-group was formed to review barometric pressure correction language.
   6. A teleconference is planned for April.

I. **ATC-174 Water Usage and Measurement** (J.P. Libert, Chair)
   1. A revised draft of the benchmark calculation was reviewed. Task group members will review in detail and reply to J.P.
   2. Discussion around differences in using a simple heat balance method to calculate evaporation vs fill heat transfer coefficients and liquid/gas ratio. Best method to be determined.
   3. Discussion on ultimately including ToolKit, once finalized. May need coding assistance since the code is now owned by CTI.

3. **Transition of P&T Chair and Vice-Chair Positions**
   A. With the expiration of my second two-year term, Jared Medlen will be the new chair for 2020-2021. Scott Nevins (Evapco) and Hussnain Yaser (BAC) will be vice-chairs.

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**NOTE:**

The CTI Standing Committee Minutes are prepared by the individual committees and formatted for print in this newsletter. For more information on these committees, their minutes, and their agendas, please visit cti.org
A DIFFERENT KIND OF CONFERENCE: 
A VIRTUAL WORKSHOP

Seventy years ago the world was certainly a different place than it is today. Passenger jets, video recorders, and television sets were still technologies of the future. Polypropylene was almost a decade away, and the first copy machine would not be invented for nine years.

The Cooling Technology Institute has grown a lot in those seventy years. As technology has changed, so have we. Mass transit, safer workplaces, telecommunication, and more have allowed CTI to be a more effective and efficient organization as the years go by. While we have always looked forward to changes in the world, the current global climate has made it harder to work, harder to communicate, and harder to do business. But education and innovation are the cornerstones of CTI, and where others have hesitated as the landscape of meetings, conferences, and workshops has suddenly changed, CTI is stepping forward and embracing technology like never before.

Join the CTI’s three standing committees (Engineering Standards & Maintenance, Performance & Technology, and Water Treating) for three days of research, discussion, development, and education, and take part in our first online, virtual committee workshop and summer conference schedule.

Engineers, scientists, salesmen, consultants, and professionals from among the industry’s manufacturers, suppliers, owner/operators, and more will attend from around the world to help develop the various standards that keep cooling towers safe, reliable, cost effective, and maintained, offering a unique experience to further the education of industry veterans and students alike.

Join us this summer and be a part of the cooling tower industry’s continuing development and education. Visit us at cti.org for more information and lend your voice to the committees that have the most effect on you.

DON’T GET LEFT BEHIND
JOIN US ONLINE

JULY 12-15
CTI.ORG FOR MORE INFORMATION
FROM THE OFFICE

A VOLUNTEER APART

Every member means something to CTI, but occasionally a member’s contribution rises to embody CTI with dignity and relentless passion for education and development, and what can we do but honor such exemplary service to the CTI community? This year the CTI Board of Directors awarded the first ever Prestigious Service Award to Bob Cunningham in recognition of his exceptional contributions to the goals and principles of the Cooling Technology Institute. Congratulations, and thank you for everything!

A LIFETIME OF ACHIEVEMENT

The CTI Honorary Life Membership Award is given to a small but distinguished group of members who have provided a significant period of continuous and extraordinary service to CTI and its member base. This honor is given infrequently by the CTI Board of Directors, and we are proud to present this distinguished award to Frank Michell. Congratulations!

PEOPLE POWERED

People power the Cooling Technology Institute. As a volunteer association, it’s not always easy to find the time to contribute to CTI. Life, business, and balancing the schedules of members and peers spread across time zones and countries can make it more than a daunting task. That’s why we always try and recognize the work that gets done and the people that do it. In particular, we want to thank the retiring committee chairs of Engineering Standards & Maintenance (Ken Mortensen of SPX) and Performance & Technology (Kent Martens of SPX) for their years of work and dedication.

PASS THE GAVEL

Every two years the CTI Board of Directors votes on a new president. An individual tasked with providing stability and direction to the organization amidst an ever changing political, financial, and business landscape. This year, a new president has taken the reigns of CTI giving us an opportunity to thank and honor our first female president. Thank you, Helen Cerra, for your vision, leadership, and dedication to CTI!

STILL TO COME:

Future Meeting Dates, Press Releases, the CTI Expo, and a look at business during the COVID-19 pandemic.

BECOME A MEMBER
CTI.ORG/MEMBERSHIP
BUSINESS FROM SOCIAL DISTANCE

'Dealing with COVID-19'
Bill Howard
Cooling Tower Depot, Inc.

Our way of life is backwards or at least upside down! Wow who would have imagined back in February of this year when we saw a few CTI participants wearing masks that we would be where we are today? So many of us really had no idea, whereas these individuals wearing the masks could perhaps see into the future? COVID-19 has shaken our way of life down to the bone, it has shaken the entire world.

The human race is resilient and is coping as best as we can with this new world threat. From Government to Municipalities to Universities, to all schools to everyday businesses we are coping, some types better than others but everyone now realizes the total impact the COVID-19 has caused and will continue to cause until a vaccine can be created.

Essential businesses have been allowed to remain open, such as ours here at our company. We have moved 50% of our work force to their homes and shuffled some of the remaining individuals around in our office to allow for more social distancing (a phrase we have all come to know all too well!!) Zoom Meetings, Microsoft Teams meetings and Webex meetings and even some Skype meetings have all become an integral part of our everyday ability to perform work. Air travel has become almost nonexistent! Live sports, who misses just about any kind of live sports besides me? We will prevail and to all of the businesses that are struggling, such as many restaurants, retail stores, theaters, and even bars need our help, so reach out and provide the support they desperately need to stay in business. Small businesses are the backbone of the USA and we must ensure their success! Reach out and help in any way you can in these trying times.

CTI is on the forefront of bringing the summer workshop meeting to a virtual meeting. This will be a fun and unique experience for all of us and we should embrace the opportunity as it will allow all the important work to progress and advance all our codes, standards and guidelines, the driving force and true benefit that CTI brings to the industry. We need your involvement and participation in this one of a kind CTI meeting so please virtually join all of us July 12-15 and join in, get involved, educate others, participate and thrive!

'Business in Quarantine'
Helen Cerra
ChemTreat, Inc.

When asked to write about conducting business during this quarantine, I balked. I hesitated because I was being asked to do additional tasks, some of which are new and have a quicker due date than in our normal course of business. But I can’t say no, and this writing is the result. After all, this is for CTI, our beloved CTI.

After 10 weeks in quarantine I can report I have given more virtual presentations than I ever have in my life. I developed two new presentations and had to give one of them three times over the course of a month. I recorded a short video for a third presentation. This activity was challenging as it involved using a ring light and finding the correct wall within my house to provide the best lighting without shadow. One might think this is an easy venture, but I have come to understand the trees around my house provide a lot of shade, creating problems for proper presentation lighting. I will look forward to that same shade when it warms up here in Virginia, but that involves the weather and that is as uncertain as this pandemic.

My calendar is a patchwork of scheduled meetings and webinars. Many organizations are scheduling webinars as they know people working from home are a captive audience. For those with conflicting schedules, the webinars are typically recorded. Finding the time to watch them is the challenge.

It was the long hours sitting in the first two weeks that was unusual. It seemed fatiguing. Though maybe like fitness, one must train for this type of activity. I welcomed my web meetings to chat with the committee members and hear their familiar voices, comforting in many ways. The meetings gave me a break from the stress of my day. Is that bad to say? I love my job, but frankly, if we did not have stress, would we have the challenges that make it interesting and worthwhile? This quarantine has created the situation where we cannot see our colleagues in person or visit our customers. Even our 2020 CTI Summer Workshop will be virtual. Will there be challenges? Of course, but how else can we grow?

I look forward to the summer workshop in a new venue - my home.
The COVID-19 virus has impacted our members across the globe and we sincerely hope that all of you are keeping safe and well as health authorities deal with this pandemic. Many of our member firms have been designated as “essential businesses” recognizing the critical role that heat rejection equipment plays in keeping modern society functioning in a safe, reliable, and sustainable manner. And like many of our members, the CTI Office has chosen to work remotely for the safety of our staff, while still meeting the needs of our members, facilitating the ongoing work of CTI Committees and Task Groups, and planning for upcoming workshops (virtual for Summer 2020!) and conferences.

With many offices, factories, and other buildings closed during this crisis, the CTI also wants to remind those involved in building operations and facilities management that the safe shutdown and start-up of low use or no use building water systems, including evaporative heat rejection equipment, is imperative during this crisis. There is a wealth of information available on this topic from the American Society of Heating Refrigeration and Air-conditioning Engineers (ASHRAE), Alliance to Prevent Legionnaire’s Disease (APLD), ESCMID Study Group for Legionella Infections (ESGLI), etc. Specifically, CTI Guideline 159, available from our publications store, can serve as a resource for the safe shutdown and restart of idled evaporative heat rejection systems. Please contact the CTI office for details.

We are confident that we will all come through this crisis stronger than before so please stay safe and know that the CTI is open and here to help in any way we can! We hope you can join us for our Virtual Summer Workshop, originally planned to be held in Steamboat Springs, Colorado, USA. See the registration information in this Newsletter or visit the CTI website for more information.

The world as we know it will never be the same after the passing of the COVID-19 pandemic. The number of cases reported and the resulting death toll is devastating and quite unbelievable. We have all suffered some personnel loss of some kind. Our business, and especially small businesses, have taken a tremendous blow in which some may never recover. Our health care professionals and first responders have been tested to the max, and as we would have expected because of their faith, perseverance, and teamwork have shown us all how truly great our country is. Our government leaders have had to unite and get on one team for a while and attempt to throw out the bi-partisan views. Hopefully progress has been made.

So, how has this Pandemic affected CTI and our industry? Has it been positive or negative? Obviously, there will be some who won’t survive or will be scaled back to a skeleton of the original company. To those who survive in our industry, they will be stronger. What this Corona Pandemic has taught us to do is be flexible. For some of us older CTI members, we have a lot of trouble changing the way we do business. We have had to change and that is good. We have discovered that you don’t have to jump on an airplane and rush to a meeting across the country or around the world. We have all learned how to ZOOM. Between ZOOM, Microsoft, WebEx, and Skype business can go on as usual with a tremendous savings in company travel. This is a positive!

CTI has always been a very resilient organization that has changed with the times over 70 years. We will do it again. We are in the process of organizing our very first virtual Summer Workshop. Would we rather be in Steamboat? I think we all know the answer to that, but we will survive. Let’s not forget who we are as an organization and an industry and come out of this Pandemic with the positives. I am sure we will!
**PRESS RELEASES**

**MULTI-AGENCY TESTING**

May 21, 2020 - The Cooling Technology Institute announces its annual invitation for interested drift testing agencies to apply for potential licensing as CTI Drift Testing Agencies. CTI provides an independent third party drift testing program to service the industry. Interested agencies are required to declare their interest by September 1, 2020 to the CTI office via email at the address listed below:

vmanser@cti.org  
Subject: Multi-Agency Testing

**CALL FOR PAPERS**

May 21, 2020 - The Cooling Technology Institute has issued an industry wide call for papers. That’s right, you can share your research and ideas with thousands of cooling tower industry professionals, executives, engineers, scientists, and more! Papers will be presented at the 2021 Annual Conference from February 7-11 in New Orleans, LA at the Sheraton New Orleans. If you’re interested in presenting a paper, you can submit an abstract to the CTI office using the following guidelines:

- Due no later than June 30, 2020.
- Should be no greater than 150 words.
- Should identify the paper’s relevance to the industry.
- Be objective and impartial.

A Manual for Authors with detailed instructions will be mailed with your notice of an approved abstract in the first week of August or sooner. Sales pitches will not be accepted. The CTI office and its selected reviewers and committees have the final say on papers and content to be presented.

Visit cti.org to submit an abstract form.

**A NEW LEGIONELLOSIS GUIDELINE**

February 1, 2020 - The Cooling Technology Institute (CTI) is pleased to announce the release of Guideline (GDL) 159 - Practices to Reduce the Risk of Legionellosis from Evaporative Heat Rejection Equipment Systems. This new document provides comprehensive guidance specifically for Owners, Operators, Water Treatment Professionals, and others involved in the monitoring and care of cooling systems utilizing evaporative heat rejection.

GDL-159 was developed by a committee of industry professionals, including water treaters, suppliers, microbiologists, manufacturers, and owner/operators per the CTI consensus-based approval process. The guideline covers such areas as basic Legionella microbiology, risk assessment, general maintenance and inspection, equipment operations, and record keeping. GDL-159 can be used as a resource in the development of Water Management Plans, such as those required by ASHRAE Standard 188-2018, Legionellosis: Risk Management for Building Water Systems.

**MARK YOUR CALENDAR**

Annual Conference 2021  
The Sheraton New Orleans in New Orleans, LA  
February 7-11, 2021

Committee Workshop 2021  
The Inn at Loretto in Santa Fe, NM  
July 11-14, 2021

Annual Conference 2022  
The Westin Galleria  
February 6-10, 2022
CTI EXPO 2021
BUY - SELL - TRADESHOW
YOUR ALL ACCESS PASS TO THE HEAT REJECTION INDUSTRY

FEBRUARY 9, 2021:

Not every tradeshow is worth attending. Not every tradeshow is the CTI Expo. The CTI Expo is an international exhibition of cooling tower and heat rejection businesses. Join dozens of manufacturers, suppliers, equipment owner/operators, water treaters, engineers, and scientists in an industry unique face to face experience that promises to leave you enriched, empowered, and educated.

WHO SHOULD ATTEND?

Need a new gear supplier? Having problems finding a water treater? Looking into thermal certification? The CTI Expo helps guide hundreds of companies towards partnerships and peers that benefit them the most. Whether they’re engineers, suppliers, executives, or marketers, lawyers, and thought leaders, the CTI Expo is a summit of technology and information like none other in the industry.

Learn from the historical and current projects of dozens of companies and get the information you need to make forward thinking decisions for your own. The CTI Expo is for anyone who values information. It’s a celebration of innovation, technology, and cooperation, and the possibilities are endless!

WHY SHOULD YOU EXHIBIT?

The CTI Expo is an international marketplace with attendees from Europe, Asia, Africa, Australia, the Middle East, and the Americas. Decision makers spanning multiple industries representing both private and government organizations as well as schools, legal, financial, software, and consulting firms are all looking for what’s next for their organization. Business developers, purchasers, project managers, and executives—the CTI Expo can start a conversation and engage powerful partnerships.

Join us in New Orleans and meet the buyers and decision makers of the cooling tower and heat rejection industries.

RESERVE YOUR SPACE AT CTI.ORG/EXPO

YOU’VE GOT QUESTIONS?
WE’VE GOT EXPERTS!
CTI.ORG/EXPERT
ABOUT US
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