

**Cooling Technology Institute
2014 Summer Meeting
Steamboat Springs, Colorado**

CTI Engineering Standards and Maintenance Committee

Closing – General Session, July 16, 2014

Bill Howard, Cooling Tower Depot - Chair
James Blake, American Lightning Protection - Vice Chair
Ken Mortensen, SPX Cooling Technologies - Vice Chair and Secretary
Jim Baker, CCS Cooling Twr, Jon Bickford, Alliant Energy, AdHoc Coordinators

I. Call to Order/Announcements/Introduction of Attendees -

At 10:30 AM, Bill Howard began the meeting. A list of 15 attendees at the Closing meeting is available. Opening had 35 attendees, list available.

II. Lead Task Group Chair Reports

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

- **Wood, Joe LaBove and Bill Howard [Redwood and Treatment only]** met Tuesday at 8AM. Approved AdHoc changes to STD – 103, 114, 119, and 134 and sent these documents to the Board of Directors for final approval. Designating as Historical: STD – 104 and 117. NDS effects on all of documents is now included.
- **New Guideline, Cleaning of Cooling Towers, Philip Poll, Don Zelek –** met Monday at 11AM. Reviewed a completed draft added sections on fill cleaning. Getting Water Treatment Committee involved on chemical treatment and disinfection. Goal is to go to Ad Hoc in August, 2015.
- **Corrosion of Concrete, Narendra Gosain, Tom Kline –** did not meet, ESG-123 document has been sent for Ad Hoc review.
- **Portland Cement, Narendra Gosain, Tom Kline –** Met Tuesday at 4PM, ESG-153 was reviewed and recommended for re-affirming to the Board of Directors. Editorial changes only.
- **Materials of Construction, Chapter 9, Ethan Chesnut –** met Tuesday at 1:30PM. The group is preparing a 1st draft including substantial changes and references to other CTI documents. That draft will be re-distributed to the group.

Mechanical Equipment Task Group [Dave Suptic, Craig Burris]

- **New Standard – Vibration, Craig Burris** – met Monday and Tuesday at 9:30 AM. Reviewed and fine-tuned the Draft. This document is expected to go to AdHoc Review by the Winter 2015 meeting.
- **Speed Reducers - Craig Burris** – STD-111 forming a group to start work that met Wednesday. This standard will be broadened to include ACC Fan components as well.
- **Chapter 11 – Electrical Components, Dave Suptic** – Met at 9:00AM Tuesday. This group is looking for a new chair and input from people with electrical controls and motor experience to add needed sections to the document. The group has had no consistent source of motor information and this input is needed to complete the document.

FRP and Plastics Task Group [Glenn Barefoot, Jamie Bland]

- **New Guideline – Wood to FRP, John Ahern, Ken Mortensen, Glenn Barefoot** – met Monday at 3PM. Document outline is complete and additional detail and “how not to” pictures sought for the specific topic sections. With those items, a full draft is complete for review by the group.
- **New Task Group Guideline on Thermoplastic Products, Kevin Hole, Chris Spencer** – met Monday at 1:30PM. The purpose of this document is to provide a design guide, ala ESG-152 for FRP, for the thermoplastic components in the cooling tower. A refined outline covering selection criteria for these components was sub-divided into physical capabilities including flammability and water quality requirements/fouling requirements. A draft assembled by these categories will be completed next.
- **FRP Siding STD – 131, John Ahern** – Met Monday at 10:30AM. Standard was revised in 2009 and upon review seems to be quite current. Adding some information on FM and ASTM requirements was recommended. This document can be ready for AdHoc review at the next meeting.
- **Filament Wound Pipe, Bill Daugherty** - Met Tuesday at 11AM. This document is up to date and may be recommended as a “re-affirm”.
- **STD-137 FRP Pultrusions, Glenn Barefoot** – Met Monday at 3:30PM. This document is between reviews, but a change to remove edge seal left out of the last revision was requested and agreed by the previous voting members.

Tower Operations Task Group [Jim Baker]

- **STD-203 - Industrial Cooling Tower, Terry Ogburn, Tom Toth** – met Monday at 4PM. Comments were addressed and alternate wording on several points was proposed. Expect to detail and send to AdHoc by October.
- **Long-term Storage of Cooling Towers, Jim Baker, Steve Chaloupka** – Met Monday at 2:30PM. Established scope, roster, and voting members.

Hazard & Environmental Protection Systems Task Group [James Blake]

- **Chapter 8 (ES&M) Environmental Aspects of Cooling System Operation, James Blake** – separated from Chapter 7 (Water). Plan to combine efforts with Water Treatment. Helen Cerra has been identified as the contact person.
- **BUL-109 Nomenclature of Industrial Cooling Towers, James Blake** – Met Tuesday at 2:30PM. Ready for AdHoc. Reviewers have been chosen and forwarded to Bill Howard.
- **Lightening Protection, James Blake** – Met Tuesday at 8AM. This document is a candidate to be re-affirmed.
- **Construction Safety, Philip Poll** - Met Tuesday at 8AM. Established scope, roster, and voting members. This document is fairly complete. Consult experts in several companies for changes and then proceed to AdHoc.

Old Business

- **Information, R Seismic Factor, Bill Howard** – The latest ASCE 7 document now expected to include R_f of 2.0 and an Omega of 1.0. The next ASCE meeting is in Denver August 15. The group is looking for money to support testing to improve these values. Working with Jim Harris detailing the multi-year Test Plan that may include testing at the University of Guadalajara, Mexico.

New Business

- **OP304 Document Procedure** – Several Educational sessions were held on OP304 at this CTI meeting. These sessions will probably be a regular thing to support the document writing process at CTI.
- **New Document Reviews**
 - **Safety, Philip Poll, Ken Mortensen** – This is a good document, to be reviewed by company experts. It can be ready for AdHoc soon.

III. Adjournment – at 11:05 AM