



COOLING TECHNOLOGY INSTITUTE

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2016 CTI Technical Committee Workshop Performance & Technology Standing Committee Minutes

July 11-13, 2016

Task Group Chair Reports

- **ATC-105 – Acceptance Test Code for Water Cooling Towers** (Larry Burdick, Chair)
 - Voted and approved six sections that were previously discussed.
 - Discussed extrapolation of performance curves beyond usual flow range (90-110%). A presentation was reviewed and will be distributed to voting members; comments to be returned to Larry by September 16. Intend to review at 2017 Annual Conference.
 - Discussion on seasoning of fill, which is not mentioned in 105, but is referenced in ATC-140 (drift code).
 - Teleconference planned for early November 2016.

- **Water Usage Task Group** (Zan Liu, Chair)
 - Reviewed/defined purpose and scope of the task group. Voting intended to take place before or at the 2017 Annual Conference.
 - Members asked to review J.P. Libert paper from 2016 Annual Conference, and offer comments on proposed calculation methods.
 - Calculation methods to be addressed first; measurement methods later.

- **Sound Certification** (Doug Randall, Chair)
 - Discussed merits of revising STD-201 OM & RS, versus creating a separate, freestanding RS document. Voted and unanimously approved the freestanding document as the best option.
 - Doug Randall, Chris Auth and Mike Womack will collaborate on a draft document, to be shared with voting members at the 2017 Annual Conference.
 - Planning three teleconferences between now and the Annual Conference; will identify the modifications that will be need to be made for STD-201 Operating Manual and the Data of Record.

- **STD-202 Standard for Publication of Custom Cooling Tower Thermal Performance Test Results** (Paul Lindahl, Chair)
 - Discussed issues related to handling flow of information for publication by the CPA between the test agencies, participating manufacturers, and CTI. Several changes discussed and approved.
 - Document revisions needed include:
 - adding qualifying tests on the form for reporting by the CPA;

- adding language in the standard to strengthen communication feedback loop as information flows through the process.
 - Addressing minimum requirements for a participant to remain in the program.
 - Chair will develop structured spreadsheets for facilitated processing going forward.
- **ATC-140 Isokinetic Drift Measurement Test Code for Water Cooling Tower**
(Chris Lazenby, Chair)
 - Discussion on the difference between static and dynamic surface tension measurement and devices (continuing CTI R&D project)
 - Vincent Ganzitti wants to reintroduce the ability to use conductivity as a valid variable. Task group members were asked to research this topic and share their findings before the 2017 Annual Conference.
 - Several editorial revisions were made, including tracer element concentrations.
- **ATC-128 Code for Measurement of Sound for Water Cooling Towers** (Jean-Pierre Libert, Chair)
 - Reviewed changes recommended by Larry Burdick regarding sound measurement for small towers (reflecting and reference planes)
 - Discussed alternate methods for easier measurement/calculation of sound at 50' above fan discharge.
 - Interim teleconference call is planned for October or November.
 - Recommended changes will be gathered for discussion at the 2017 Annual Conference. Ad Hoc review of proposed revisions is anticipated for Summer 2017.
- **STD-201 Standard for the Certification of Water Cooling Tower Thermal Performance** (Mike Lippy, Vice Chair)
 - Voted to approve 30% as the standard glycol concentration (ethylene or propylene)
 - Discussion on the addition of coil pressure drop data, but no resolution. A follow up teleconference is planned.
 - Need flexible language to show certification revision number on alternate tower locations (e.g., nameplate).
 - Still need to decide if changes will be published as an addendum, or new document revision. Paul Lindahl indicated that if CTI self-prints this standard, they should be distributed as changes are made.
 - Future issues to be discussed include:
 - Consider how manufacturers can define certified design condition ranges for instances where the equipment is not designed for the full range of CTI conditions
 - Barometric pressure equation, and impact of broadening the range.
 - Defining requirements for use of CTI-owned flow meters.
 - Standardize format of manufacturer's data in Section 6.
- **PFM-143 Recommended Practice for Airflow Testing of Cooling Towers** (Sander Venema, Vice Chair)
 - Began new draft review (reviewed 6 of 16 pages)
 - Discussion on whether or not ACC & forced draft towers should be included. General consensus was yes.