TECHNICAL COMMITTEE, RESEARCH STUDIES, & WORKING GROUP UPDATES

George Daisey
CRRC Technical Committee Chair

Mischa Egolf
CRRC Technical Manager

Annual General Membership Meeting
Las Vegas, NV
June 12, 2019
TECHNICAL COMMITTEE UPDATES
WHAT IS THE TECHNICAL COMMITTEE?

- Advisory committee to the Board of Directors
- Charged with understanding and resolving scientific and technical issues
- Makes non-binding recommendations
WHAT IS THE TECHNICAL COMMITTEE?

- Diverse and balanced group comprised of 32 members (16 voting)
- Meets 3 - 4 times per year

TC Meeting attendees at May 2, 2019 meeting in St. Louis, MO
<table>
<thead>
<tr>
<th>Voting Member</th>
<th>Company</th>
<th>Alternate</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim McQuillen</td>
<td>Johns Manville</td>
<td>Steve Heinje</td>
<td>GAF</td>
</tr>
<tr>
<td>Ronnen Levinson</td>
<td>Lawrence Berkeley National Laboratory</td>
<td>Hashem Akbari</td>
<td>Concordia University</td>
</tr>
<tr>
<td>Andre Desjarlais</td>
<td>Oak Ridge National Laboratory</td>
<td>Chad Fisher</td>
<td>UL</td>
</tr>
<tr>
<td>Gary Whittemore</td>
<td>Sika Sarnafil, Inc.</td>
<td>Mike Ennis</td>
<td>Single-Ply Roofing Industry (SPRI)</td>
</tr>
<tr>
<td>Bill Morgan</td>
<td>Malarkey Roofing</td>
<td>Greg Keeler</td>
<td>Owens Corning Roofing and Asphalt, LLC</td>
</tr>
<tr>
<td>Scott Kriner</td>
<td>Metal Construction Association</td>
<td>David Cocuzzi</td>
<td>NCCA</td>
</tr>
<tr>
<td>Ted Best</td>
<td>Sherwin Williams</td>
<td>Mark Thimons</td>
<td>American Iron &amp; Steel Institute</td>
</tr>
<tr>
<td>Wade Shepherd</td>
<td>Boral Roofing</td>
<td>Rick Olson</td>
<td>Tile Roofing Institute</td>
</tr>
<tr>
<td>VACANT</td>
<td>VACANT</td>
<td>Payam Bozorgchami</td>
<td>California Energy Commission</td>
</tr>
<tr>
<td>Stacey Weister</td>
<td>Momentum Technologies Intl</td>
<td>Andrew Jambor</td>
<td>Momentum Technologies Intl</td>
</tr>
<tr>
<td>Dan Rardon</td>
<td>Specialty Granules, Inc.</td>
<td>George Daisey, Chair</td>
<td>Dow Construction Chemicals</td>
</tr>
<tr>
<td>Kurt Sosinski</td>
<td>Tremco, Inc.</td>
<td>Jennifer Sherwin</td>
<td>Firestone Building Products</td>
</tr>
<tr>
<td>Annette Sindar, Vice Chair</td>
<td>Eagle Roofing Products</td>
<td>Yoshi Suzuki</td>
<td>MCA Clay Tile</td>
</tr>
<tr>
<td>Frank Klink</td>
<td>3M</td>
<td>Rebecca Everman</td>
<td>3M</td>
</tr>
<tr>
<td>Dave Yarbrough</td>
<td>R&amp;D Services, Inc.</td>
<td>Tyler Westerling</td>
<td>Architectural Testing, Inc.</td>
</tr>
</tbody>
</table>
Since 2018 Membership Meeting:

• New Chair: George Daisey, Dow Construction Chemicals
• Voting members appointed:
  – Mike Crewdson, Q-Lab
  – Frank Klink, 3M
  – Stacey Weister, Momentum Technologies International
• Alternate voting members appointed:
  – David Cocuzzi, NCCA
  – Rebecca Everman, 3M
  – Andrew Jambor, Momentum Technologies International
  – Jennifer Sherwin, Firestone Building Products
Since 2018 Membership Meeting:

- Re-appointed the following voting members for another two-year term:
  - Andre Desjarlais, Oak Ridge National Laboratory
  - Scott Kriner, Metal Construction Association
  - Kurt Sosinski, Tremco, Inc.
COMMITTEE UPDATES

• One vacant seat on the Committee:
  – Voting seat
  – Class B member (General Interest)
  – Seeking contractor, builder, architect, designer, energy utility, or government perspective

• Please send potential candidates to Mischa (mischa@coolroofs.org)
COMMITTEE UPDATES

• Committee’s major decisions:
  – Practical significance threshold for test method changes
  – Aggregate test method specification for solar reflectance
  – Educational note and interim assigned thermal emittance value for aggregate roofing products
WORKING GROUPS
ACTIVE WORKING GROUPS

- Rough Substrates
- Methods & Instruments (M&I) Subcommittee

Photo courtesy of Charlie Moore

Photo courtesy of Surface Optics
• Currently discussing implementation questions and finalizing test method specification
  – How will dual ratings appear on Rated Products Directory?
  – What are the logistics of initial testing (panel preparation, etc)?
• Once complete, Committee and Board will vote on adoption
• Small group established to:
  - Evaluate new/modified test methods and devices for the measurement of SR or TE
  - Make recommendations to the TC on actions related to methods or instruments for determining SR or TE.
Currently exploring three topics:

a. Aggregate thermal emittance test method
b. Implementation specification for aggregate products embedded in coating
c. 410-Solar test method
OTHER WORKING GROUPS

• Substantial work completed by Method Evaluation Working Group in 2018
  – see Retesting Working Group Update for additional details

• 2018 working groups (no longer active):
  – Thermography
  – Coatings & Colorimetry
TECHNICAL RESEARCH UPDATE
ACTIVE RESEARCH STUDIES

• Coatings on Rough Substrates: Weathering Observation

• Comparison of Solar Reflectance (SR) Test Methods
Objective: Observe durability of underlying rough substrate over period of field exposure in 3 climates

Key details:
- 66 total specimens provided by RCMA manufacturer members and CRRC working group
- Observe specimens at 3-month intervals for up to 3 years

Outcome: Approval of specification for coatings on rough substrates
• Specimens have been weathered for 1 year
  - No observed delamination
  - No significant granule loss
• Total study duration: 3 years (possibly less)
Objective: Compare results of field and laboratory test methods on varying product types and geometries

Key details:
- 10 products of 4 unique types
- Field testing at Atlas in Phoenix, AZ

Outcome: Dataset used to validate existing practices and explore potential improvements
• Measurements have been completed
• Detailed results presented to Technical Committee in May 2019
• Board will consider publication of study
• Staff will conduct follow-up research planned for non-ASTM E1918A, per Committee’s request
UPCOMING TC MEETINGS

• August 1, 2019  
  (conference call)
• October 17, 2019  
  (Las Vegas, NV)

Interested in attending? Contact:
• Mischa Egolf (mischa@coolroofs.org)