



# TECHNICAL COMMITTEE UPDATE

Annual Membership Meeting  
June 14, 2017

# TECHNICAL COMMITTEE

- Advisory committee to the Board
  - Charged with understanding and resolving scientific and technical issues
  - Makes non-binding recommendations
- Comprised of 32 members (16 voting)
- Meets 3-4 times per year





# COMMITTEE ROSTER

## 2016-2017 Technical Committee Roster with Alternates

Voting Member	Company	Alternate	Company
Tim McQuillen	Roof Coatings Manufacturers Association	Steve Heinje	GAF
Ronnen Levinson	Lawrence Berkeley National Laboratory	Hashem Akbari	Concordia University
Andre Desjarlais	Oak Ridge National Laboratory	Chad Fisher	UL
Gary Whittemore	Sika Sarnafil, Inc.	Mike Ennis	Single-Ply Roofing Industry (SPRI)
Bill Morgan	Malarkey Roofing	Marcin Pazera	Owens Corning Roofing and Asphalt, LLC
Scott Kriner	Metal Construction Association	Dan Walker	Metal Building Manufacturers Association
Richard Slomko, Chair	Atlas Material Testing Solutions	Michael Crewdson	Q-Lab Weather Research Service
Ted Best	Valspar	Mark Thimons	American Iron & Steel Institute
Wade Shepherd	Boral Roofing	Rick Olson	Tile Roofing Institute
Kurt Shickman	Global Cool Cities Alliance	Payam Bozorgchami	California Energy Commission
Cindy Campbell	RCMA Americas	Stacey Weister	RCMA Americas
Dan Rardon	Specialty Granules, Inc.	Diana Fisler	Johns Manville
Kurt Sosinski	Tremco, Inc.	Paul Riesebieter	Tremco, Inc.
Annette Sindar, Vice Chair	Eagle Roofing Products	Yoshi Suzuki	MCA Clay Tile
Hal Leland	Western Colloid	Frank Klink	3M
Dave Yarbrough	R&D Services, Inc.	Tyler Westerling	Architectural Testing, Inc.



# TECHNICAL COMMITTEE POLICY UPDATES

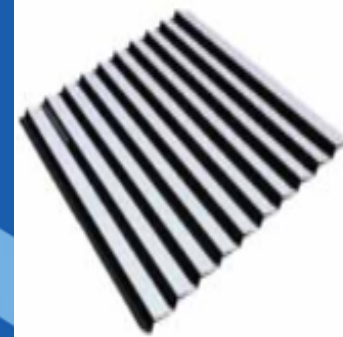
- Board approved the proposed changes to the Technical Committee (TC) Policy to include:
  - Five permanent positions for:
    - Lawrence Berkeley National Lab
    - Oak Ridge National Lab
    - Two AITLs
    - One test farm
  - Increased minimum members to seven



# TEST METHODS AND STANDARD PRACTICES



# DIRECTIONALLY REFLECTIVE MATERIALS (DRM) - HISTORY



**2013**

- CRRC helped fund study on measuring solar reflectance of DRM
- Board adopted product rating method in November based on study
- DRM incorporated rating method into CRRC-1 Program Manual

**2014**

- TC working group developed test method for measuring solar reflectance of DRM

**2015**

- Round robin study of draft test method completed
- TC approved the test method in October
- Board approved adoption of test method in November
- CRRC-1 Program Manual updated to include test method

**2016**

- CRRC pursues a standalone ASTM standard for DRM test method
- Proposal submitted to ASTM C16 subcommittee
- One negative vote received



# DRM 2017 UPDATES

- C16 subcommittee met in Toronto (April)
- Negative vote found as non-persuasive
  - Subcommittee voted to override negative vote
- Proposed test method will move to full committee ballot (May/June 2017)

# ROLE OF PHOTOS

- TC approved requiring photos in product rating process
  - Pending adoption by Board
- Benefits
  - Verifying test specimen requirements
  - Verifying Test Farm Notification notes
  - Investigating problems
  - Integrity of CRRC procedures for testing, aging, rating
  - Added value for manufacturers
- Photos currently required in some cases







# COMMITTEE WORKING GROUPS



# METHODS & INSTRUMENTS SUBCOMMITTEE

- Methods & Instruments (M&I) subcommittee established in October 2014
- Standing subcommittee comprised of 5 TC members
- Subcommittee Scope:
  - Discuss and undertake the technical evaluation of new or modified methods or instruments for radiative measurement
  - Report results of discussions and evaluations to the Technical Committee
- Current topics:
  - Dual Ratings for Coatings Specification
  - Aggregate Test Method



**Aggregate Test Method A  
Box of Rocks**



**Aggregate Test Method C  
Faux Shingle**



# ROUGH SUBSTRATES WORKING GROUP - HISTORY

2012

- RRCI and RCMA studies find lower solar reflectance for coatings on rough substrates

2013

- TC recommendation for dual ratings for coatings
- Developed draft test procedure

2015

- Working group designed round robin procedure
- CRRC worked with RCMA to identify manufacturer participants

2016

- Round robin conducted
- TC reviewed results in August – *reproducible & repeatable*
- Board approved dual ratings for coatings



# ROUGH SUBSTRATES 2017 UPDATES

- M&I subcommittee developing specification for dual ratings for coatings (smooth & rough substrates)
- Exploring applicable thermal emittance test method
- RCMA identifying additional coating types to include in weathering
- Will start three-year weathering of rough substrate specimens later in year



# METHOD EVALUATION WORKING GROUP - HISTORY

**2014**

- Analyzed data from C1371 and Slide Method round robin to develop statistical approach to adopt for other proposed test method changes

**2015**

- ARMA completed analysis and proposal – findings presented to TC in August
- WG developed guide for evaluating new test methods that has been approved by TC

**2016**

- ARMA presented to TC in October and discussed statistical and practical significance
- WG tasked with exploring modeling as proof-of-concept for practical methodology



# METHOD EVALUATION 2017 UPDATES

- WG conducted whole building analysis using two modeling software programs (CBECC and EnergyPlus)
- WG will also explore using ASTM E1980 (establishes SRI calculation) as simplified approach to whole building analysis

# RESEARCH TOPIC WORKING GROUPS



Impact of  
Aging  
Beyond 3  
Years



Rapid  
Ratings  
Data  
Validation



Comparison  
of Solar  
Reflectance  
Test  
Methods





# UPCOMING MEETINGS

- August 17, 2017 (In-person meeting)
  - Columbus, Ohio
  - All day
- October 26, 2017 (Conference Call)
  - 2 hours
- Contact
  - For Technical Committee  
[sarah@coolroofs.org](mailto:sarah@coolroofs.org)
  - For working groups and research projects  
[vanessa@coolroofs.org](mailto:vanessa@coolroofs.org)



# QUESTIONS?