



Asphalt Roofing Manufacturers Association
Low-slope Committee Meeting Draft Minutes
Hilton Alexandria
5000 Seminary Road
Alexandria, VA 22311
Tuesday, March 24, 2009
Approved: XXXX

Chair: Tim Kersey, Siplast, Inc.

Attendees:

Frank Klink	3M
Pete Westberg	3M
Richard Roe	Atlas Roofing Corporation
Ed Todd	Atlas Roofing Corporation
Richard Snyder	CertainTeed
Jeff Stermer	CRAFCO
Michael DiStefano	Continental Materials, Inc.
Eileen Dutton	GAF-Elk Corporation
Adem Chich	GAF-Elk Corporation
Lou Hahn	GAF-Elk Corporation
Helen Hardy-Pierce	GAF-Elk Corporation
William Woodring	GAF-Elk Corporation
Vincent Feinberg	Huhtamaki
Larry Shields	Huhtamaki
Andy Lodge	IKO
Ingo Joedicke	ISP Minerals
Phillip Kehoe	ISP Minerals
Bob Kluttz	Kraton Polymers
Robert Almon	Mid-states Asphalt
Richard Lee	Momentum Technologies
Darrel Higgs	Owens Corning
Nelson Ballard	Performance Roof Systems, Inc.
Travis Wallace	Performance Roof Systems, Inc.
Chad Johnson	Polyglass
Tim Kersey	Siplast, Inc.
Aaron Phillips	TAMKO
Travis Turek	TAMKO
Shaik Mohseen	Tarco

Guests:

Jay Crandell	ARES Consulting
Lorraine Ross	Intech Consulting
Dwayne Sloan	Underwriters Laboratories
Phil Smith	Factory Mutual

Staff:

Wendell Alcorn	General Counsel
James Baker	Director of Industry Affairs
Michael Fischer	Director of Codes and Standards
Reed Hitchcock	Executive Vice-President
Allen Weidman	ARMA Staff, Sustainability

Introductions and Opening Remarks

Tim Kersey, Chair, noting that a quorum was present, called the meeting to order at 12:30 PM, reviewed the objectives of the meeting, recognized first-time attendees and asked members to do self introductions.

- **Review of Antitrust Policy**
Wendell Alcorn, General Counsel, reviewed the ARMA Antitrust and Document Retention Policy.
- **Review and Approval of Minutes**

Tim Kersey, Chair, called for approval of the August 20, 2008 Meeting Minutes. Sid Dinwiddie noted that the ARMA Staff report should be corrected to thank sponsors. Bob Kluttz requested to be added to the attendee list of the meeting.

MOTION: Sid Dinwiddie moved and Andy Lodge seconded to approve the amended minutes of the August 20, 2008, Summer Meeting.

The motion passed unanimously.

- **ARMA Staff Report**

Reed Hitchcock, Executive Vice-president, thanked the meeting sponsors. He reported that Joe Hobson had returned from Richmond, VA from the blind school and sends his regards.

Committee Reports

- **Steep-slope Committee**

Darrel Higgs, Steep-slope Chairman, noted the committee meeting will be held on March 25, 2009 from 8:00 AM to 12:00 Noon. Higgs review the agenda of the meeting and noted the Steep-slope Committee will hear updates on the Cool Roof Steering Group's purpose, position and strategy document; California's AB32 Plan for climate change; a presentation from UL; and various task force project updates.

- **Communications and Quality Asphalt Roofing Council**

Jim Baker, ARMA staff, reported that the Communications Committee and QARC would be combining meeting in the future to coordinate its positions better and to eliminate the overlap and length of time that members would need to spend at meetings. At the November 2008 Board meeting, the Board of Directors agreed to provide more member company support in light of the current reduction in budget for the committee. This means members will be responsible for developing more articles and content. QARC was not affected by the Board's reduction in budget as the program is a self-funding program.

- **Health, Safety & Environment**

Jim Baker, ARMA staff reported, the ARMA Health, Safety, and Environment (HSE) Committee has decided to forego its in person spring committee meetings in favor of a web-based teleconference which will take place on April 8, 2009. HSE Committee Chairman Bob Hockman, TAMKO Building Products, made the decision in an effort to increase attendance while minimizing ARMA member's travel costs. John Ferraro, ARMA staff, is in the process of creating the PowerPoint presentation and other background materials for the teleconference. For more information on the teleconference and agenda topics, please contact John at 202-207-1121 or jferraro@kellencompany.com.

Factory Mutual Update

Phil Smith, FM Approvals – Materials Group, reviewed FM 4470, FM 4476 PV Standard, Vegetative Roof Standard (PLPDS 1-35), and updates to PLPDS 1-52. FM 4470 will now include 4450 and incorporate the non-combustible core (optional rating) as defined by ASTM D482, ASTM E2058, ISO 1716: 2002. FM 4470 will also include an optional dynamic puncture rating and corrosion resistance. FM 4476 for flexible photovoltaic modules either adhered or mechanically fastened to the roof assembly will be released in draft form in 2009. It will include wind up-lift resistance and hail damage resistance. FM's 1-35 Vegetative Roofing is being revised and will include FM 4470 requirements with exposed sections of the membrane being hail resistant; a Class 1 internal fire classification; and a minimum of 65% coverage of succulents. Phil also reviewed the data sheet changes which included PLPDS 1-52 and reviewed the FM RoofNav product briefly.

Low-slope Reflectance Steering Group Update

- **Status Overview**

- **California Title 24/AB32**

Reed Hitchcock, Executive Vice-President, reviewed ARMA's work regarding the 2008 CEC Title 24. The Cool Roof Steering Group is working on completing both the insulation trade off calculations with Andre Desjarlais, Oak Ridge National Labs and Kirk Goodrum, Siplast. (Since the March meeting, ARMA learned that a CEC trade-off calculator is now in the ACM draft. ARMA was told we will be given a review opportunity.) The Q & A document sub-group will meet in the next month to finalize a draft of the document to present to the Cool Roof Steering Group. Jim Baker, ARMA Staff, reported that California was continuing its work on climate change; however the key focus of the work being generated was related to the cap and trade program and vehicle emissions. The draft of the "Local Government Tool Kit" has not been released for comment; however, "The Small Business Tool Kit" is available at www.coolcalifornia.org and is slated to be approved at the April 2009 CARB Board Meeting. Staff and Eileen Dutton, GAF/Elk, have reviewed the website which is a conglomeration of links that reference state and federal programs like the EPA Energy Star Program with no direct mention of roofing. Staff noted according to Jim Mattesich, Greenberg Traurig, that The Cool Communities Developer Project sponsored by CARB appears to be under reconsideration and

has launched a \$700,000 joint research effort with the California Energy Commission to help qualify and quantify the energy saving provided by cool roofing and paving materials over the next four to five years. Jim Baker, ARMA Staff, reported on the difficulties on finding a climatologist to review and help ARMA members understand how increasing roof and pavement albedos will actually effect climate change, according to co-authored paper by Dr. Akbari and Art Rosenfeld. The committee discussed and suggested several options to further the process.

- **ASHRAE 90.1**

Andre Desjarlais updated the committee on activities regarding ASHRAE 90.1. At the last ASHRAE meeting addendum f was not discussed. ARMA had previously submitted responded in the negative during the balloting process through Merle McBride. Addendum f is still outstanding on cool roofing provisions. Darrel Higgs noted that that prescriptive cool roofing requirement will be on the next ballot for climate zones 1 and 2. Currently, there is a concern about the calculations and a potential rounding issue. A new addendum will be forth-coming and heard on June 19, 2009 in Louisville, KY.

- **ASHRAE 189.1P**

Tim Kersey, chair, informed the committee that ASHRAE 189.1P will be covered by the Sustainability Council update later during the meeting.

- **Other Ongoing Issues**

Reed Hitchcock, Executive Vice-President reviewed the cool roofing programs chart and there was suggestion to verify the reflectance the Sacramento Tree Group as members thought that the SRI number was actually higher than what was published.

Tim Kersey, Chair, noted that ARMA continues to try and collect actual cost data through Pacific Coast Building Products regarding the cost of installed low-slope reflective roofing. ARMA is attempting to drive the collection of this data by providing a \$400 incentive for contractors to complete the survey. ARMA specifically needs contractors in Zones 1, 2 & 3.

ACTION: ARMA staff will work with Lynn Picone, GAF/Elk; Richard Allen Snyder, CertainTeed; and Tim Kersey, Siplast to put together a boiler plate letter to go out in advance of contactor solicitations for the cost survey.

Underwriters Laboratories Update

Dwayne Sloane, Building Materials, Roofing Materials & Systems, and Air Ducts, Underwriters Laboratories, discussed moving UL55A to an ANSI Standard; the use of UL2218 for low-sloped roofing; and an update of the balloting process for UL2218. There was a group discussion about maintaining UL55A or aligning UL55A with ASTM.

ACTION: UL will give ARMA a cost and product impact analysis of aligning UL55A with ASTM.

The group discussed the UL2218 for low-sloped roofing products and potential developing further language. Since UL2218 failed to reach consensus on the last ballot, UL will address all negative comments received, revise the proposal, re-circulate for comment on or about May 1, 2009 with the ballot closing on or about June 1, 2009.

Codes Task Force Update

Mike Fischer, Director of Codes and Standards, reviewed the changes to the ICC Codes Development process that include eliminating the supplemental cycle. The new process will include a single three-year cycle between publications. ARMA consultant Jay Crandell discussed the new wind speed maps and requirements that are being proposed in the ongoing revisions to ASCE-7. The changes to ASCE-7 are primarily academic in nature and will provide more precise measurement, while specifying different design wind speeds based upon the relative importance (and occupancy) of the structure. The new maps also include new improved hurricane wind risk modeling which effectively lowers the hazard along most of the US coastline and defines higher hazards closer to the coastline instead of further inland. If this revision passes ARMA members will want to pay particular attention when labeling their products that can be used on more than one category of building. The CSG will work with the stakeholders to determine the labeling implications and provide guidance to ARMA members.

The ARMA CSG is working on a number of code proposals for the upcoming ICC code development cycle. The most significant of these efforts is the ARMA effort to remove a ban on the use of roof gravel aggregate in hurricane-prone regions in the U.S. ARMA consultant Jay Crandell is leading the way to provide ICC with scientific justification for the ARMA position that the use of roof gravel in BUR assemblies is a proven method- even in windborne debris regions- and that a responsible and technically supportable approach to the use of aggregate that balances the needs for affordable and sustainable roof systems with concerns about wind performance is the best approach.

Lorraine Ross, Intech Consulting and an ARMA Consultant, reported that she is working with staff at the State of Florida and with the Institute of Business and Home Safety (IBHS) on efforts to clarify and improve requirements for secondary water barriers on reroofing projects in Florida. This is an ongoing issue for the CSG.

Low-slope Sustainability Task Force

Allen Weidman, ARMA Staff, reviewed the current ASHRAE 189.1P that is attempting to be the first ANSI accredited standard in the marketplace for the codes to reference. The standard calls for $\geq 75\%$ of the roof to have a SRI of 78 for low-slope ($\leq 2:12$) or 29 for steep-sloped ($> 2:12$); and or comply with EPA's Energy Star Program. There is an exception for climate zones 6, 7 and 8. There is a prescriptive option for vegetative roofs and various requirements for recycle contents, renewable energy, use of bio-based products and "non-hazardous" construction/demolition practices. There was a discussion regarding the various implications the standard could create within the codes community and the low-slope committee's motions from the previous day regarding the need to continue to monitor the development of 189.1P and allocate funds to create a life cycle inventory (LCI).

**MOTION: Lynn Picone moved and Andy Lodge seconded to support the low-slope committee's endorsement to remain engaged in the ASHRAE 189.1P Monitoring.
The motion passed unanimously.**

The committee discussed the potential impacts and issues that could arise from the approval of ASHRAE 189.1P and it being referenced in the codes. It was noted that if ARMA wished to move on collecting LCI data that a request for proposal should be developed and a cost determined for the project. Lorraine Ross, Intech Consulting, commented that the cost to collect the data could be over \$100,000 and that ARMA may need to be placed on a waiting list to complete the work due to the importance and limited number of consultants approved to collect the data.

ACTION: The Sustainability Council will need to determine several typical roof assemblies to collect the data on as a starting point.

**MOTION: Bob Kluttz moved and Lynn Picone seconded to recommend to the ARMA Board of Directors to hire a consultant to collect LCI data to effectively deal with standards similar to ASHRAE 189.1P/
The motion passed unanimously.**

Other Issues/Updates

- **Technical Bulletin Review**
Tim Kersey, Chair, reviewed the updated technical bulletin on Self-adhered Membranes. There was a discussion on the bulletin and the chair thanked the task force for its work.

**MOTION: Andy Lodge moved and Richard Snyder seconded to approve the revision to the Self-adhered Membrane technical bulletin.
The motion passed unanimously.**

- **RICOWI**
Jim Baker reported RICOWI recently met in Dallas, Texas with the RCI where RICOWI's new executive director was introduced. RICOWI is working on completing the Hurricane Ivan Report and it is expected to be out by April 15, 2009. The group received a \$5,000 grant from the RCI Foundation to fund its investigative work and RICOWI is still evaluating its strategic plan and membership dues structure.

Summary/Adjournment

There being no further business to come before the Committee, Tim Kersey, Chair, adjourned the meeting upon unanimous consent at 4:10 PM.