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# CODES AND STANDARDS TASK FORCE

January 13, 2023  
Wild Horse Pass, AZ



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# Antitrust Statement

**\*SPRI Antitrust Statement:** SPRI complies with antitrust laws and requires participants in its programs to comply with antitrust laws. Discussions which could affect competitive pricing decisions or other competitive factors are forbidden. There may be no discussions of pricing policies or future prices, production capacity, profit margins or other factors which may tend to influence prices. In discussing technical issues, care should be taken to avoid discussing potential or planned competitive activities. Members and participants should be familiar with the SPRI Antitrust Policy and act in conformity with it.



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## Task Force Objectives

- Provide timely and pertinent information on Codes and Standards that may affect the sale of sheet membrane roofing systems and components.
- Identify and communicate key issues that may impact SPRI members.
- Codes & Standards ongoing programs:
  - Monitor regulatory and legislative activities (both National and State)
  - Monitor activities of key governmental and non-governmental organizations that may impact SPRI members
  - Monitor & Comment on Standards developed by others



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## Government of Canada new collaborative approach for National Model Codes

- Bas Baskaran to review



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## CRRC


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- Random testing program update:
  - 2022 program is 96% complete; 4 products still in process
  - 2023 program
    - Program was completed in December 2022, and Licensees with selected products will be notified in early January.
    - Sample procurement of all products is expected to be completed by August 2022.



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## CRRC


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- Random Testing Program
  - Products reaching their 15 year deadline are projected to peak in 2025 and reduce significantly after that.
  - Many of these products should get randomly selected over the next few years because of the weighted product selection, but this can be thought of as the “worst case scenario”.
  - We should see the selection getting more random following 2025.



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## CRRC


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- The new rated wall products directory is now live: <https://coolroofs.org/directory/wall>
- Education Committee: In 2023, the EduC will continue working on the development of a CRRC course on cool roofs and cool exterior walls that could be eligible for continuing education credits, as well as the creation of a new educational document focused on the impacts of reflective building surfaces on heat-vulnerable communities.



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## CRRC


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- **CRRC Technical Committee - Compilation of Historical Weathering Data Study (In-progress)** - The purpose of this CRRC study is to analyze solar reflectance and thermal emittance values for a dataset that was developed by Lawrence Berkeley National Laboratory over the course of a three-year exposure period. The intended outcome of the study is to validate or identify improvements to the current CRRC three-year weathering requirements.




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## CRRC Annual Renewals

January 1, 2023	Renewal items are generated by the Portal and will be reviewed for accuracy between January 1 and February 6
February 6, 2023	Official renewals launch. All participants will be notified by an email sent from the Portal
April 7, 2023	Renewal fees due



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## CRRC Meetings

- Board:
  - February 2, 2023 - Las Vegas, NV
  - April 6, 2023 - Virtual Meeting
- Technical Committee
  - February 16, 2023 - Virtual Meeting
  - May 10, 2023 - Denver, CO
- Annual Meeting
  - June 14, 2023 - Las Vegas, NV



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## RICOWI

- Deployed Teams to investigate Hurricane Ian
  - Focused on Cape Coral
  - Update will be provided at the Spring Seminar
- Spring seminar
  - March 2 and 3 – Houston
  - In conjunction IIBEC



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## Built America/Buy America Act

- Construction materials used on federal-aid highway projects are now subject to Buy America provisions, effective 11/10, some waivers are being considered.
- The Act covers five construction materials categories: non-ferrous metals, plastics and polymer-based products, glass, lumber and drywall.
- Iron, steel and “manufactured products” have already been subject to the rules. Asphalt, aggregates and other paving materials are not subject to Buy America.



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## Boston University Study

- Both tree canopy and white roofs were important tools for Boston, but white roofs might offer more bang for the buck in neighborhoods with little room to plant trees.
- The hottest city blocks can see summer temperatures up to 10-12 degrees Fahrenheit warmer than other parts of the city.
- A lot of these dense residential city blocks are 60, 70, 80% flat, black rooftop
- Increasing the solar reflectivity of a Boston city block's roofs by 10% will reduce average daytime summer temperatures by more than 3 degrees Fahrenheit within the block.



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## LBNL – Residential Solar

- Wealthy households are more likely to adopt rooftop solar than their lower-income counterparts, but that's starting to change.
- The median household income for rooftop solar adopters was \$129,000 in 2010 and \$110,000 in 2021. The report attributed the shift to the declining cost of solar products, state initiatives and new financing options.



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## New Energy Standards for Federal Buildings Will Spur Renovations, Says White House

- The Council on Environmental Quality’s (CEQ) Federal Building Performance Standard requires agencies to cut energy use and electrify equipment and appliances to achieve zero scope 1 emissions in 30 percent of their buildings by square footage by 2030.
- General Services Administration (GSA) announced that it will not use Inflation Reduction Act funding to install fossil fuel-based equipment



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## New Energy Standards for Federal Buildings Will Spur Renovations, Says White House

- In 2023, GSA will open the Des Moines U.S. Courthouse, a new all-electric, energy-efficient Federal courthouse for the Southern District of Iowa that features a highly reflective cool roof, insulated windows, and LED lighting.
- In 2023, DOE’s National Renewable Energy Laboratory (NREL) will replace existing gas heating with electric
- Similar replacements are already underway at PNNL



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## Cool Surfaces Deployment Plan

- Uptake of cool surfaces has been strong in California and Florida, but more limited nationally. The Cool Surfaces Manhattan Project (CSMP), sponsored by the Building Technologies Office of the U.S. Department of Energy, seeks to bridge this gap by dramatically increasing the climate-appropriate deployment of cool roofs and walls across the U.S., with an emphasis on their application to disadvantaged communities.



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## Cool Surfaces Deployment Plan

- Literature reviews, stakeholder interviews and workshops, engaged with various federal agencies
- Based on the information obtained developed a deployment plan which focused more on health and urban heat island impacts vs. energy savings



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## Cool Surfaces Deployment Plan

- Identified 19 transformative ideas. For each idea, a summary and what, why, how and who would implement, who would benefit, where, implementation timeline, cost, Justice40 Link, undesirable side effects and the model to follow were identified



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## Cool Surfaces deployment plan

- Provide technical assistance to government officials responsible for housing
- Leverage new Bipartisan Infrastructure Law and Inflation Reduction Act programs and incentives
- Launch “Keep Your Cool” educational campaign
- Create cool-surface contractor training program
- Organize annual “Cool Surfaces Workshop”



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## Cool Surfaces Deployment Plan

- Cool Roof Prize (CR-Prize) for better cool asphalt shingles
- High-profile, large-scale demonstration programs
- Develop guidelines for best practices in incentive programs
- Develop/modify evaluation tools and calculators
- Introduce cool surface requirements/credits into all green-building standards and programs



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## Cool Surfaces Deployment Plan

- Codify retrofits so that the building envelope must include some improvements in energy efficiency
- Develop cool surface boilerplate language for policies and programs
- Include cool walls in building codes, standards, and programs
- Create cool-surface competitions to spur deployment



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## Cool Surfaces Deployment Plan

- Upstream rebates for cool-surface manufacturers
- City and regional government partnerships and training
- Cool surface specifications and city-wide reflectance targets in climate action plans
- Seek input from stakeholder communities



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## ASTM

- ASTM and NEU Sign Memorandum of Understanding
  - ASTM International and NEU: An ACI Center of Excellence for Carbon Neutral Concrete have signed a memorandum of understanding (MoU) aimed at reducing and eliminating the carbon footprint of concrete in the built environment.



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## ASTM


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- Sustainability Assessment for Single-Ply Roofing Membranes
  - Lots of negatives received, did not like the point system
  - Felt it was no longer necessary due to EPD's and other measurement tools



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## ASTM


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- Standard Guide for Evaluating the Substrate Surface of Structural Concrete Roof Decks
- 5.3 Moisture within the concrete – Concerns over moisture within the structural concrete roof deck, if any, should be addressed by the project team or design team before commencing installation of adhered roofing system components.
- TG Chair is Dean Craft of ISELogik



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## ASHRAE


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- Addendum bi to ANSI/ASHRAE/IES Standard 90.1-2019
  - provides a new definition for “roof replacement” that aligns with the definition and provisions of the 2021 IBC
  - clarifying the specific roof replacement requirements in a new Section 5.1.3.1, and



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## ASHRAE

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- Addendum bi to ANSI/ASHRAE/IES Standard 90.1-2019
  - requiring that, where areas of a roof have difficult conditions that may prohibit full, code-compliant levels of insulation from being achieved, roof replacement designs must be provided to the local authority having jurisdiction for review and approval.
  - a roof inspection report documenting existing roof conditions
  - a roof design minimizing deviation from the requirements of Section 5.5.3.1.1.



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## California

- California Joins National Coalition of States and Local Governments Strengthening Building Performance Standards
- This is a White House-led initiative to accelerate building performance standards across the country. The coalition was launched in January 2022, establishing a partnership of more than 30 state and local governments that will share results and best practices for delivering cleaner, healthier, and more affordable buildings while creating jobs, lowering costs, and prioritizing frontline communities.



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## Factory Mutual

- NEW STANDARD: FM 4540
- Examination Standard 4540, was published in November 2022 and provides the testing and certification requirements for; ASTM E119 and ASTM E1529 structural members and fire resistance rated assemblies; EN 1364 and EN 1365 fire resistance rated elements



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## ANSI PINS


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- BSR/AISI S250-202x, North American Standard for Thermal Transmittance of Building Envelopes with Cold-Formed Steel Framing (revision of ANSI/AISI S250-2021)
- Project Need: This standard provides design methods for the purposes of calculating the heat transfer of roof, and wall and floor assemblies containing cold-formed steel framing; and developing prescriptive solutions for code compliance, and similar issues that impact cold-formed steel framing due to energy code requirements.



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## ANSI Call for Comments

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- Comment deadline: January 16, 2023
- APA (APA - The Engineered Wood Association), 7011 South 19th Street, Tacoma, WA 98466 | borjen.yeh@apawood.org, www.apawood.org
- BSR/APA 405-202x, Standard for Adhesives for Use in Structural Glued Laminated Timber (revision of ANSI 405-2018)
- This standard provides minimum performance requirements for evaluating adhesives for use in structural glued laminated timber (glulam)
- Obtain an electronic copy from: borjen.yeh@apawood.org
- Send comments (copy psa@ansi.org) to: Same



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## Draft ISO Standards

- ISO/DIS 3506-7, Fasteners - Mechanical properties of corrosion resistant stainless-steel fasteners - Part 7: Flat washers with specified grades and property classes - 3/19/2023



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## Newly published ISO Standards

- Thermal insulation (TC 163)
  - ISO 29466:2022, Thermal insulating products for building applications - Determination of thickness
  - ISO 29469:2022, Thermal insulating products for building applications - Determination of compression behavior
  - ISO 29766:2022, Thermal insulating products for building applications - Determination of tensile strength parallel to faces



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## Newly published ISO Standards

- Fasteners (TC 2)
  - ISO 2702:2022, Fasteners - Heat treated tapping screws - Mechanical and physical properties



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## ANSI – Final Actions

- ULSE (UL Standards & Engagement), 12 Laboratory Drive, Research Triangle Park, NC 27709-3995  
griff.edwards@ul.org, <https://ulse.org/>
- ANSI/UL 2218-2022, Standard for Impact Resistance of Prepared Roof Covering Materials (revision of ANSI/UL2218-2020) Final Action Date: 11/29/2022
- ANSI/ASAE S401.2-AUG93 (R2022), Guidelines for Use of Thermal Insulation in Agricultural Buildings (reaffirmation of ANSI/ASAE S401.2-AUG93 (R2017)) Final Action Date: 11/28/2022



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## ANSI – Final Actions


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- ASTM (ASTM International), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | [accreditation@astm.org](mailto:accreditation@astm.org), [www.astm.org](http://www.astm.org)
- ANSI/ASTM E2988-2017 (R2022), Practice for Specimen Preparation and Mounting of Flexible Fibrous Glass Insulation for Metal Buildings to Assess Surface Burning Characteristics (reaffirmation of ANSI/ASTM E2988 -2017)  
Final Action Date: 11/22/2022



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## EPD'S

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- Updated EPD for Non-Reinforced EPDM membrane issued 7/21/22, valid thru 7/21/27 – ASTM-EPD335
- Updated EPD for Reinforced EPDM membrane issued 7/21/22, valid thru 7/21/27 – ASTM-EPD334
- Updating EPD for TPO



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