

DOCKETED

Docket Number:	19-BSTD-03
Project Title:	2022 Energy Code Pre-Rulemaking
TN #:	235444
Document Title:	Arkema Comments - Request to include the Low-Slope Cool Roof Requirements within Title 24, Part 6
Description:	N/A
Filer:	System
Organization:	Arkema
Submitter Role:	Public
Submission Date:	10/28/2020 8:20:41 AM
Docketed Date:	10/28/2020

Comment Received From: Arkema
Submitted On: 10/28/2020
Docket Number: 19-BSTD-03

**Request to include the Low-Slope Cool Roof Requirements within
Title 24, Part 6**

Please see attached pdf document

Additional submitted attachment is included below.

Arkema Prepared Statement:

Title 24 / High Performance Building Envelope at California Energy Commission Public Workshop, Oct. 20, 2020

Hello. Good Morning. My name is Paul Lavallee. I work for Arkema as the Global Market Manager of Kynar® Coatings. I would like to thank the California Energy Commission for the opportunity to share comments today. I would also like to thank the “Codes and Standards Enhancement Team” or CASE Team for their outstanding work in developing the Non-residential High Performance Building Envelope Report.

Arkema would like to request that the Commission include the Low-Slope Cool Roof Requirements within the Title 24, Part 6 / Non-residential High Performance Building Envelope” code proposal, and NOT in the Title 24, Part 11 / Cal Green segment. We would like to share five reasons why we feel it is in California’s best interest to include the Low-Slope Cool Roof Requirements in Title 24, Part 6.

1. First, Low-Slope cool roofs will provide a 32% higher payback to California than Steep-Slope Roofs. This is evidenced on the CASE Report’s Tables #49-51 on overall payback, or “Net Present Value”, of the roof’s lifespan. In fact, this payback value could even be higher with long-lasting cool roof technologies.
SUPPORT: 30 year NPV of Low-Slope Cool Roof Change is \$25.7M which is significantly larger (35%) than the \$19.1M for Steep Slope (Tables 49-51).
2. Second, Low-Slope roofs will provide 13% higher Greenhouse Gas Savings vs. Steep-Slope Cool Roofs. Low-Slope cool roofs will provide a net 955 MT CO2 equivalent reductions. This is supported by the publicly-shared CASE calculations
SUPPORT: CASE supplied the final GHG value (listed above) and stated it would be included in a “revised” Final Case Report or addendum.
3. Third, concerns about roof condensation can be easily addressed with vapor barriers and/or roof insulation. The CASE Report clearly outlines Performance methods and standards to address this in Section 2.2.2.6.
SUPPORT: The proposed code changes for the roof alterations, require all buildings to have a minimum of R-10 above-deck which will eliminate moisture issues in the vast majority of situations. For new construction, the design can account for the lower roofing temperature. See Section 2.2.2.6 Cool Roofs and Moisture Buildup.
4. Fourth, there are a wide variety of currently-available roofing products that can meet the proposed Low-Slope Cool Roof Standards. In fact, there are several asphaltic-based products that meet the proposed standards. Overall, there are 481 unique roofing products presently on the market (71% of current product offerings) that will meet the proposed Low-Slope Cool Roof Standards. This is supported by Tables #172 & 173 in the CASE Report.
SUPPORT: 29% of Asphaltic Membrane products meet the proposed cool roof standards. See Figure 17 / Table 172.
5. Finally, the energy goals set by the California State Legislature are both challenging and imminent. Meeting these mandated targets will require an “all of the above” approach, utilizing many proven technologies to collectively reduce our carbon footprint. The CASE Final Report’s calculations and conclusions support that the proposed Low-Slope Cool Roof requirements are a proven value-add.

Taken together, we feel these facts paint a picture of economical and achievable improvement, which meets California Energy Commission’s goals for Energy Efficiency, Greenhouse Gas Reduction, and Reducing Building’s Environmental Impact/Heat Island Effect, and supports the addition of the Low-Slope Cool Roof proposal to the High Performance Building Envelope program for the 2022 Code Cycle Year.

Again, thank you for the opportunity to share these comments.