us greenfiber, llc

November 3, 2003

California Energy Commission (CEC)
1516 Ninth Street
Sacramento, CA 95814

Re: 2005 Proposed Building Energy Efficiency Standards

On behalf of the Cellulose Insulation Manufacturers Association (CIMA) and U.S.GreenFiber, L.L.C., we express opposition to a proposed change to the 2005 Residential ACM Manual, Section RQ4.3.6 Loose Fill Wall Insulation, submitted by the North American Insulation Manufacturers Association (NIAMA) in a letter dated 10/17/03. The CEC received two additional and identical comments from the Glass, Molders, Pottery, Plastics & Allied Workers International Union (AFL-CIO, CLC), and their affiliate the West Coast Protective League.

It is obvious to us that NAIMA provided a form letter to the other two respected organizations, and by mentioning this; I am in no way inferring a lack of sincerity. This simply makes it easier for me to respond to all comments at once.

The reference cited by NAIMA, et al, FTC Notice of proposed rulemaking, 16 CFR Part 460 (Federal Register/Vol. 68, N0.135/Tuesday, July 15, 2003/Proposed Rules, page 41885), relates to moisture and settling in attic insulation, not wall insulation. At the time these industry comments were submitted (1999), neither loose-fill fiberglass nor stabilized cellulose attic insulation had a consensus standard to measure settling. Thus, the FTC admonished all manufacturers to "…take settling into account and use reliable tests to back up their claims".

Also discussed on the same page of the Federal Register under the topic of stabilized insulations used in manufactured housing attics, NAIMA proposed over-the-road testing to assure stability. They were apparently not aware of an extensive over-the-road testing program conducted by CIMA for HUD and witnessed by PFS, a third party quality control agency. This testing concluded that settling was less than 5% from the time of installation to delivery at home sites in excess of 200 miles away. Also, there was no movement or shifting observed from airflow through attic ventilation openings. Today, stabilized cellulose attic insulation packages have both installed and settled thickness information on coverage charts.

Stabilized cellulose attic insulation now has a standardized ASTM test method, called the "drop box" test, to measure settling and qualify a product's stability. By contrast, there still is no consensus test standard to measure settling of loose-fill fiberglass or rock wool, nor is any ASTM task group presently working on one. Coverage charts only indicate the settled thickness and manufacturers provide no instructions to installers as to what the initial installed thickness should be. For this reason, the density of loose-fill fiberglass and rock wool insulation should be verified. Otherwise, unscrupulous installers will fluff a lesser weight of material to the settled thickness and cheat the public.

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Regarding moisture added to cellulose insulation and drying times: the moisture content of freshly installed stabilized cellulose attic insulation is generally between 16% and 22%, and will dry to a normal level from 8% to 12%. The moisture added will not vary a great deal since too much material will be used when moisture is past the upper end and excessive dust will result on the lower end. As an adjunct to the HUD transportation testing mentioned before, change in moisture contents for insulation, roof sheathing, ceiling membrane, and rafters were monitored for both vented and non-vented attics. The testing showed that attics were essentially dry when the house left the factory.

These comments from NAIMA, et al, appear to address a new issue for insulation added to walls with moisture (although they incorrectly referenced as support, a moisture-related discussion about attic insulation in the FTC document). Wall-spray was first used in the early 1920's, but it gained more recent popularity in the early 1980's. Over the past 20 years, there have been very few anecdotal installed moisture problems, and we are unaware of any situations since CIMA published it application guidelines in 1998. It appears insulation installers have successfully overcome installed moisture issues (by following the CIMA installation guidelines along with manufacturer's recommendations). Under the circumstances, the changes proposed by NAIMA could reasonably be viewed as an attempt to create problems with scheduling drywall attachment when loose-fill insulation is installed with water; which could favor batt-type insulation instead. (NAIMA failed to raise any moisture issues with wall-spray insulation in their comments to the FTC back in1999).

Specifying the length of drying time does not relate to the quality of an application. Thermal conductivity, completely filling the cavity with no gaps, voids, or compressions, and without subsequent fall-out or settling are qualities. There will be a range of moisture added with wall-spray depending on the characteristics of a particular product, the type of application equipment used, and the requirement to completely fill each cavity with no defects. In fact, the application process tends to be self-regulating. High moisture will cause too much material to be used. Low moisture generates a lot of dust and the material won't stick in the wall.

We believe the Residential ACM Manual should not include prescriptive clauses, such as the one proposed by NAIMA, unless they directly relate to obtaining a high level of energy efficiency. NAIMA's proposal has no energy performance basis. It portends of a non-existent moisture issue: one which installers, manufacturers, and builders resolved several years ago, and the dearth of anecdotal claims attests to its successful implementation. An analogous and equally unproductive proposal would be something like: "When inset stapling batts, staples shall be no more than _-inch from the plane of the stud face and no further apart than 3-inches".

We are fervently against this "11th-hour" proposal by NAIMA and hope it will be rejected based, in part, on the above testimony.

Respectfully submitted,

(Original signed by Ivan T. Smith)

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